A STUDY OF EFFECTS OF LOW TEMPERATURE STRESS ON SEED DEVELOPMENT AND YIELD IN WHEAT (*TRITICUM AESTIVUM* L.)

A THESIS PRESENTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF AGRICULTURAL SCIENCE
IN SEED TECHNOLOGY AT
MASSEY UNIVERSITY

BY

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MARCH 1981

ABSTRACT

Temperature affects the growth, development, fertility and yield of cereals. The degree of sterility and subsequent yield reduction caused by extreme temperature stress depends upon the minimum level and duration of the stress temperature applied and the stage of plant development at the time of stress.

An experiment was conducted in which three low temperature regimes (-4^{o}, $-2^{o}C$ and $+3^{o}C$) were applied at 5 different stages of plant growth (from 1 day before anthesis to 9 days after anthesis) for a period of 6 hours with pre- and post-conditioning periods of 6 and 4 hours respectively.

The results showed that the minimum temperature reached determined the nature and severity of temperature injury in Karamu wheat.

Complete floret sterility was evident when a $-4^{o}C$ temperature was imposed at the pre-anthesis or anthesis stages of plant development; florets in any position of the head being equally affected. A $-4^{o}C$ temperature stress applied 3 days after anthesis produced 50% and 5% seed formation in primary and secondary heads, respectively. This seed formation mainly occurred in the basal florets of the apical and central spikelets of the head, however the seeds formed did not develop after stress and subsequent viable seed yield was zero.

At the later stages, 6 or 9 days after anthesis a $-4^{o}C$ temperature stress had no significant effect on seed numbers. However there was a substantial negative effect on seed development and viability so that subsequent viable seed yield was zero.

Temperature stresses of $+3^{o}C$ and $-2^{o}C$ had no significant effects on seed formation, development and viable seed yield

when stresses were applied at any of the stages of plant development tested.

The percentage of seed formation was highest in the two basal florets of the central and apical portions of the head compared to that in the two basal florets of the bottom of the head and to the distal florets of all spikelets.

The percentage sterility in terms of relative sterility (percentage 'D + R' type ovules) and sterility index (percentage of 'D' type ovules) was also described. It was found that in 'Karamu' wheat 16% to 33% rudimentary florets were a common feature, such structures included tiny basal, sterile spikelets and the terminal florets of all spikelets.

Morphological and anatomical differences in ovules harvested at different stages of development from different treatments were observed. Ovules were classified into 6 groups for assessment of seed development. (A = apparently not fertilised, B = swollen and conical shaped, C = developing, D = shrivelled and shrunken, E = shrunken with reduced conical shape, R = rudimentary).

Possible pathways to seed formation and development can be estimated from the data. A probable pathway to normal seed development is A to B to C. However, in the case of unsuccessful seed formation and development, the pathway is likely to be A to D, A to B to D or A to B to C to D. Further detailed electron microscope work is needed to enable a complete description and understanding of the pathways of seed development in stressed and unstressed plants. Such knowledge is needed to provide a logical basis for the development of cultivars with increased cold tolerance, fertility and yield.

ACKNOWLEDGEMENTS

Grateful acknowledgement is made to Dr. C.M.J. Williams. This work was not possible without his consistent, wise guidance and constructive criticism throughout this study period and especially his patience in reading and correcting my English expression.

I am also grateful to Dr. M.J. Hill, Director and Mrs. D.E.M. Meech, Senior Associate, Seed Technology Centre for their valuable suggestions, assistance in seed testing and constructive criticism during this study and also for reading the manuscript.

Sincere thanks are also due to: -

Dr. I.J. Warrington, Plant Physiology Division, DSIR for his suggestion and willing help in providing the essential resources including 3 freezing rooms in the Climate Laboratory, DSIR, Palmerston North.

Dr. D. Greer and staff, Climate Laboratory, DSIR for all technical help in the maintenance of freezing rooms during temperature stress treatments.

Mr. A. Robertson, Department of Agronomy, for the use of the Agronomy glass house and plant physiology laboratory facilities and for instruction in the microtome technique and for provision of the necessary laboratory apparatus for microtome sectioning.

Dr. Elizabeth Williams, Grasslands Division, DSIR, for advice on techniques of microtome sectioning of seeds and for provision of a small rotary microtome.

Dr. S. Bhojwani, Plant Physiology Division, DSIR, for providing information for improving infiltration and cutting in the microtome work and critical interpretation of sections.

Mrs Pam Slack and staff, Histological Laboratory, Department of Veterinary Science for the use of the automatic tissue embedding machine and her assistance in refining the microtome technique and also for providing essential chemicals.

Mr D. Hopcroft, EM Laboratory, DSIR for his assistance in attempts to use the resin embedding technique in microtome work.

Mr C. Korte, Department of Agronomy for help in Statistical analysis, particularly in the analysis of data on ovule development and ovule position.

Miss Cathy Smith and Mr W. Abel, Computer Unit for running Teddybear computer programmes.

Mr L.G. Cranfield and staff, Plant Growth Unit, for the maintenance of the glasshouse facilities.

Mrs Maureen Lavrent for her technical help in establishment of the experiment in the glasshouse.

Mrs Karen Johnstone for her technical help in the laboratory work.

Mr R. Johnstone, and students of Seed Technology Certificate Course (1980) and Post Graduate Students of Seed Technology (1979, 1980) for their help in the conduct of the glasshouse experiment.

Mr H. Neilson, Department of Horticulture for his assistance in photographing microtome sections.

Mr L. Maiden and staff, Central Photographic Unit for photographic work.

Mr D.L. Jenkins and library staff for providing oversea's reference papers.

Mrs Joan Attwell and Mrs Veronica Lobb for the marvellous job of typing.

Mrs Kamlesh L. Rajbhandary for her recommendation for further education.

I am indebted to the New Zealand Government and H.M.G. of Nepal for providing a scholarship under the Columbo Plan.

Finally, I am very grateful to my husband D.B. Shrestha and all family members for their patience in looking after my three children and encouraging me while I conducted this study for 2 years in New Zealand.

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1. INTRODUCTION

Wheat is the third most important crop in Nepal, after rice and maize, the area under wheat having trebled in the last decade. The present area under wheat cultivation is 348,000 hectares which is about 15% of the total cultivated area. Many factors such as the introduction of high yielding varieties, irrigation, fertiliser and plant protection measures have been extended in an attempt to increase average yields per hectare, but significant yield increases have yet to be achieved.

CIMMYT (1977) has suggested three main causes for low yields per hectare i.e.: -

1. Inadequate physical facilities in remote northern hilly areas.
2. Extension of cultivation into marginal and rainfed areas.
3. Expansion of cultivation areas in Tarai regions (Southern plain areas).

In the Tarai regions, the growth cycle of the wheat crop is 50% shorter than in hilly areas, this reduction in growth cycle tending to result in low yields. In addition, a partial environmentally induced sterility in improved high yielding cultivars has been recorded during the last few years. This is particularly a feature important in the production of the most popular variety RR21 (Sonalika). Sonalika is claimed to be one of the most widely adapted cultivars, being capable of growth in winter on the plains as well as in hilly elevated areas and covering a wide range of agroclimatic conditions. However, in 1975 sterility was recorded in agronomic trials with Sonalika conducted by agricultural stations. In 1976, several farmers in the hills and plain areas reported the same effect. In 1977, head sterility occurred not only in this variety, but also in another improved variety NL30. (CIMMYT Report on Wheat Improvement 1975, 1976, 1977). Although, at the moment head sterility is not a major problem, occurring only in small scattered areas, it is still a potential problem influencing farmers wheat yields particularly when the crop is grown as an additional winter crop.

Many observations have been made in the field which suggest that the inability to set seed in some cultivars under certain circumstances is caused by abrupt changes in temperature and humidity during the flowering period which kills the pollen in the anthers. However, the problem may not be as simple as stated above.

The occurence of sterility caused by high or low temperature stress has been widely accepted. Several countries, including New Zealand and Australia have reported such damage caused by low temperature stress during the reproductive stage of development of wheat plants (Suneson 1941, Livingstone and Swinbank 1950, Single 1961, 1964, 1966, Gott 1961, Asana and Williams 1965, Toda 1965, 1966, Olugbemi 1968, Meredith 1977). Much work has been done to measure the effects on plant tissue of internal ice formation, and the expression of this effect on final grain yield during the screening of resistant varieties. These studies have shown that the degree of sterility caused by extreme temperature stress depends upon the stage of plant growth, and the intensity and duration of stress temperature. Although sterility is reported in several studies on the effects of temperature stress; the physiological causes underlying the failure of seed setting is not elaborated. Hill (1971) has suggested that successful seed development depends on a number of processes including floret development, anthesis, pollination, fertilisation and embryogenesis. Temperature is an essential environmental factor affecting these processes. So, an understanding of the causes of sterility under stress conditions requires detailed studies on seed development and the anatomical causes underlying the failure of seed formation in wheat.

The present study was undertaken on a wheat cultivar derived from Mexican parentage, bred in New Zealand, and commercially released under the name 'Karamu' in 1972-73. The characteristic features of this cultivar are short straw, awned seed and resistance to lodging. The grains are oval in shape, light in colour and are of satisfactory milling and baking quality. 'Karamu' is moderately susceptible to mildew and smut, but is resitant to rust and pre-harvest sprouting damage (McEwan et al 1972). It is early maturing and yields higher than other New Zealand varieties of comparable quality such as Aotea and Kopara. According to Langer (1978) it tends to set more grains per spikelet, and exhibits a higher proportion of floret fertility than other varieties. It was released as a spring sown wheat; but may also be sown in the early autumn. In the latter situation its very early maturity may result in yield losses from frost (McLeod and Upton 1978).

Because of the importance of environmental stress in general, and low temperature stress in particular, on the quality and quantity of wheat seed produced under temperate conditions a study was conducted at Massey University during 1979/80, the objects of which were to: -

1. Determine the effects of low temperature on seed development and seed head fertility and sterility in 'Karamu' wheat.

2. Determine the influence of low temperature stress imposed at various stages of plant development on the components of seed yield.

3. Carry out microtome sectioning of florets to try to determine the morphological pathways of early seed development in both temperature stressed and unstressed wheat plants.

2. REVIEW OF LITERATURE

2.1 INTRODUCTION

This review consists of two main parts - firstly a brief description of wheat growth and development, and secondly a more detailed discussion of genetic and environment effects on the reproductive potential of wheat.

2.2 WHEAT GROWTH & DEVELOPMENT

Wheat development has been studied extensively over many years by many workers. 'The life of wheat plant from seed to seed' by Carruthers (1892) is one of the oldest works describing the different stages of wheat development. More recent work by Warrington et al (1977) and Brooking (1979) has involved studies on the effects of temperature on grain development pattern within the wheat spike.

Monographs on the wheat plant which contain thorough descriptions of vegetative and reproductive development have been prepared by Percival (1921) and Peterson (1965). From these descriptions on wheat development, plant growth is most conveniently divided into two main parts - vegetative and reproductive development.

The vegetative stage is confined to the development of leaves and vegetative tillers. The number of tillers in particular is an important contributor to total grain yield. Low temperature stress during the vegetative growth stage has little effect on growth unless plants are killed by heavy frost. Some varieties of wheat need vernalisation during their vegetative growth stage in order to be capable of floral initiation at a later stage Langer (1979).

Warrington et al (1977) have found that temperature effects during vegetative growth has no affect on subsequent seed development. Korovin and Mamaev (1975) studied the effects of temperature stresses of $-12^{o}C$ and $-25^{o}C$ for 5 hours at 3 different levels of soil moisture content. They found that well developed plants were less sensitive to temperature stress than seedlings but such stress did not effect subsequent grain yield.

Studies of wheat ontogeny have been made by many workers, including Brencheley (1908, 1909), Percival (1921), Engledow et al (1923, 1924, 1925 and 1930), Frankel (1935), Bonnett (1936 and 1937), and Bakhuyzen (1937), Anderson (1954), Barnard (1955, 1957 & 1974), Williams (1960, 1966), Langer and Khatri (1965), Rawson and Evans (1970) and Barnard (1974). Similarly, studies on other species of Gramineae by Evans (1964), Langer (1979), Canode and Parkins (1977),Hebblethwaite(1977) and Hebblewaite et al (1980) have made the reproductive development sequence more clearly understood. Thomas (1961) suggests the importance of studies of reproductive development phases in order to understand the seed production potential of any crop.

Cooper (1960) divided the different stages occuring during reproductive development in all species of Gramineae into three phases - floral induction, floral initiation and floral development. More recently Hebblewaite et al (1980) has divided the stages of reproductive development into two stages: -

1. establishment of yield potential,
2. utilization of yield potential.

The yield potential is defined as the number of florets (or potential seed sites) per unit ground area of the crop at anthesis. The utilization of the yield potential is determined by events at and after anthesis, the developmental processes of pollination, fertilization and seed growth. The importance of the later developmental stage is influenced by a number of seed formative factors as described by Hill (1980).

In wheat, the inflorescence is a determinant type, the number of spikelets being decided on the shoot apex at the double ridge stage. The number of florets in a spikelet varies and structures which appear on the spikelet do not necessarily develop into perfect florets and produce seed.

A perfectly developed wheat floret consists of two outer glumes which enclose the androecium and gynoecium. The androecium consists of three stamens with bilobed anthers attached. The gynoecium is mono-carpellary with a triangular ovary at the base and two styles at the tip. The styles have 80-100 stigmatic branches which receive pollen for fertilisation. The anatomy of the ovary shows that the ovule is solitary, anatropous, bitegmic and tenuicellate (Bhatnagar & Chandra 1976).

2.2.1 Anthesis and Pollination

Anthesis is defined as the opening of the florets and anther dehiscence and pollination as the fall of pollen grains onto the stigma and the germination of pollen grains and growth of pollen tubes towards the ovary.

In wheat flowering begins in the middle of the spike and proceeds rapidly upwards and downwards. Within individual spikelets flowering proceeds from the basal floret to the terminal floret (Percival 1921, Barnard 1955, De Vries, 1971, Evans et al 1972). Flowering in wheat florets may be cleistogamous (i.e. fertilisation occurring within an unopen flower) or chasmogamous (i.e. fertilisation of an open flower) in the same spikelet. Rajki (1960) and Abramova (1966) have both recorded 80-90% of chasmogamous florets in most bread wheat cultivars.

The duration of opening of an individual floret is quite short but variable. Nikulina (1969) recorded florets open from 12-48, 10-14 and 7 minutes for three different wheat cultivars. De Vries (1971) suggests that the length of time individual florets remain open in wheat depends upon weather conditions during anthesis and on the cultivar being studied.

The time to complete flowering within an individual wheat spike is normally 5-6 days(Leont'ev 1966). However this can be shoreter or even longer because of genotypic and environmental factors (De Vries 1971). Strong winds and low temperatures can inhibit anthesis in some grass species (Hill 1971).

Weather conditions not only influence the duration of anthesis, but under severe conditions of very high or low air temperatures floral parts may be killed during the time they are exposed directly to ambient conditions during anthesis (Gott 1961, Olugbemi 1968).

2.2.2 Fertilization and Ovule Development

The term 'fertilization' refers to the actual fusion of the male nucleus with the ovum. Ovule development (embryogenesis) involves the early development of embryo and endosperm tissues formed as a result of successful fertilization (Hill 1971).

Double fertilization is an essential process in wheat. The ovary consists of a large oval cell called the 'embryo sac' surrounded by integuments and nucellus layers. The embryo sac contains the egg apparatus, consisting of one large egg-cell and two synergids, at the micropylar end. At the opposite end, which is the chalazal end, three or more large antipodal cells are situated. The two polar nuclei are found near the egg apparatus. The number of antipodal cells, in wheat can be quite high. Hoshikawa (1960) recorded 12-17 antipodal cells while Bhatnagar and Chandra (1976) located 15-18 antipodal cells in wheat. The egg apparatus, polar nuclei and antipodals are derived from the division of the functional megaspore. The antipodal cells probably aid in the nourishment of the young embryo. The two polar nuclei fuse just before fertilization to form the primary endosperm nucleus. During fertilization, one male nucleus fuses with the egg nucleus to form the zygote which later develops into the embryo. The second male nucleus fuses with a primary endosperm nucleus to form the endosperm nucleus which later develops into endosperm.

The importance of the study of fertilization process and early ovule development lies in the fact that all the florets which successfully reach the stage of anthesis do not necessarily produce seed.

The process of fertilization begins with pollen germination which commences 1.0 to 1.5 hours after pollination (Hoshikawa 1959) while actual fertilization takes place 3 to 9 hours later, depending upon temperature (Percival 1921, Morrison 1955, Hoshikawa 1960).

A recent study on reproductive biology of Triticum was conducted by Bhatnagar and Chandra (1976). These workers observed that while fertilisation usually occurs 10-16 hours after pollination it may also take place as little as 3-4 hours after pollination.

A major difference between species occurs in the time required for the first division of the fertilised egg. This first division occurs after approximately 24 hours in Prairie grass (Bromus unioloides) compared with 72 hours for rye grass (Lolium perenne) (Hill 1971). In wheat, Batygina (1974) has found that the zygote passes through a period of dormancy that lasts for 16-18 hours before the first cell division occurs but during this period the zygote is growing and developing intensively. It is because of this quiescent period that the first division of the fertilised egg mother cell is not observed until 24 hours after fertilisation. In the secondary endosperm cell, this dormancy period is shorter and the first cell division begins within 3-8 hours after pollination. It is possible that the length of this 'rest' period may have an influence on the subsequent ability or failure of seed development.

In wheat Hoshikawa (1961), Evans, Bingham and Roskams (1972) observed the reopening of florets if fertilisation did not occur after anthesis. In such cases the carpel continues to grow slowly, retaining the ability to be fertilised for a further three to five days. This is an unusual feature, since it does not occur in other Graminaceous species such as *Lolium perenne*, *Bromus unioloides* and *Phleum pratense* (Hill 1971).

Studies on the factors which affect fertilisation are limited. Some work has been conducted on the effects of temperature on fertilisation. Hoshikawa (1960) suggested that the optimum temperature for fertilisation in wheat is 18-24°C with minima and maxima being 10°C and 32°C respectively.

The process of fertilisation in wheat has been investigated by Batygina (1962) in detail. According to her it is a complicated biological process which is susceptible to environmental influences. The study of fertilisation in barley by Pope (1937 and 1943) and Cass and Jensen (1970) have also added to our knowledge of fertilisation processes in cereals.

Pope (1937) discussed the time factor in pollen tube growth, while in 1943 he studied the growth of the barley ovule. He found that the higher the temperature the faster the growth of the pollen tube, but the thermal death point was reached at 40°C. The significance of his study is the effect of temperature upon cell multiplication and time period to obtain maximum cell numbers. At 5°C the process was so slow that the maximum number of nuclei remained at 8 even after 6 days. By comparison, at the optimum temperature of

$30^{o}C$, cell division occurred 8 times in 1 day. He also concluded the 'heat blasting' attributed to high temperature killing pollen by many workers is also due to ovule injury.

Hill (1971) has observed collapse of the ovary in ryegrass and emphasises that successful pollination and anthesis does not guarantee effective fertilisation. Injury to ovules or pollen tubes or limited development of these organs are all possible causes of ineffective fertilisation. In fact male sterility can be associated with mechanisms which disrupt the process and path of pollen tube development and/or prevent entry of the pollen tube into the embryo sac.

The post fertilisation development or early embryogenesis in wheat has been described by Morrison (1955), Batygina (1969) and Bhatnagar and Chandra (1976). In general the rate of embryo development is much slower than the rate of endosperm development (Morrison 1955, Batygina (1962). Morrison (1955) showed that cell division occurs in definite planes and a typical compact embryo structure is produced. Batygina (1969) further described the patterns of cell division and observed the 4-celled pro-embryo in a lateral plane. She suggested it had a typical T-shaped structure characteristic of early wheat embryogeny.

The time required to develop to the 4-6 celled proembryo stage is 24-32 hours after pollination (Bhatnagar and Chandra 1976), although Morrison (1955) has mentioned about 2 days for the 4-celled proembryo with cell division continuing until 9 days after anthesis.

A description of the post-fertilisation sequence and duration of development in wheat ovules is shown in Table 2, according to Morrison (1955).

TABLE 1: POST FERTILISATION DEVELOPMENT IN WHEAT OVULES (Morrison 1955)

Days after Anthesis	EMBRYO		ENDOSPERM	
	Number of Cells	Conditions	Number of Nuclei	Conditions
0	-	Not fertilised	-	Polar nuclei not fertilised
1	No divisions	Fertilised	2 - 12	Free nuclei
2	1-4 divisions	4-celled embryo	4 - 32	Free nuclei
3	8-16 "	-	60 - 100	Free nuclei
4	8-16 "	-	100 - 300	Cells near the embryo
5	20-34 "	-	1000 plus	More cellular & starchy
7	52-64 "	-	2000 plus	Cellular starchy
9	100 plus	-	-	Starchy compact body

The condition of the multicelled endosperm 9 days after anthesis is a starchy compact body. In the case of unsuccessful fertilisation of two Hordeum species Morrison (1955) found that the endosperm was degenerating with one conspicuous band near the embryo. This was accompanied by ovule collapse 4 days after fertilisation. Collapse of ovules from 7 up to 21 days after fertilisation has also been observed by Hill (1971) in ryegrass. In certain treatments an inverted T-shaped ovary existed in a quiescent state for period up to 21 days after anthesis and thereafter collapsed or recommenced apparently normal development (Hill 1971).

Early endosperm development is concentrated on the ventral side of the ovary according to Bhatnagar and Chandra (1976). However, Hoshikawa (1961) has defined 13 different stages of endosperm development, including the elongation of cells into cylindrical forms which occur only in the later stages of endosperm development.

The major morphological changes in the ovule shape before and after anthesis were described by Hill (1971), in some herbage grasses and by Bhatnagar and Chandra (1976) in wheat. The ovule, which is spherical before fertilisation, becomes conical in shape soon after fertilisation. The later effects could be due to auxin production stimulated by the pollination process (Bhojwani and Bhatnagar 1976). After fertilisation, the ovary wall grows extensively on the distal end and is compressed at the proximal end. Due to the disintegration of cells from the distal to the proximal regions, the ovule becomes cylindrical, assuming the shape of the normal caryopsis (Bhatnagar and Chandra 1976).

Hill (1971) has grouped ryegrass ovules into different categories in an attempt to identify the sequence of seed development and possible causes of ineffective seed set i.e. category 'A' where the ovary was small with stigma and hairy style still intact and had not enlarged, indicating that the ovule had not yet been fertilised effectively; category 'B' where the ovary was bilobed and enlarged suggesting completed fertilisation. Often the hairy stigma had degenerated, and the ovule appeared white, but not showing greenness or elongation. Category 'C' where the ovary had become green and elongated in a cylindrical fashion indicating normal seed development, and category 'D' where ovules were obviously disorganised and shrivelled. Little information is available on the effects of environmental conditions on early embryogenesis in wheat, although studies on grasses (Hill 1971) have indicated the occurrence of an inverted T-shaped or mushroom shaped embryosac in ryegrass within 'B' type ovules. Such ovules may often remain apparently quiescent for up to 21 days and then either resumed normal development (i.e. 'C' type) or die (i.e. 'D' type).

2.2.3 Pattern of Seed Setting

A profile of grain development on the spike has been described by Barnard (1955), Rawson & Evans (1970), Evans et al (1972), & Warrington et al (1977). The first few basal spikelets in each seed head are very small in size and do not possess fertile florets, which Olugbemi (1968) defined as tiny basal spikelets. Each spikelet is composed of two basal empty glumes which Barnard (1955) defined as sterile basal florets. In spikelets further up the spike the basal two florets are always fertile. In distal spikelets and just above the tiny basal spikelets the third floret is either rudimentary or imperfect and does not set seed. In the middle spikelets, the third floret is fertile, the fourth floret may be fertile or sterile and the fifth floret is always rudimentary. The sterility in these apical florets (3rd, 4th and 5th florets) and in the tiny basal spikelets due to their imperfect or rudimentary structure may be environmentally imposed or may be a cultivar characteristic. Barnard (1955) classed the florets as 'rudimentary' when reduced palea and gynoecial structures were formed and defined florets as 'imperfect' when the stamens were reduced or missing. Imperfect florets may occasionally produce seed but this is not the situation in rudimentary florets. Although the number of florets per spikelet differs, the profile of seed formation in the seed head is constant. A spikelet is always composed of two empty basal glumes and a rudimentary apical floret Barnard (1955).

2.2.4 Seed Development and Maturity

Seed development is the period following successful fertilisation and 'seed set' until the seed is mature and ready for harvesting. Various processes and stages are involved during this period to achieve the basic seed traits of seed dry weight, moisture content and viability. Chemical composition, storability, seed vigour, size and colour of the caryopsis also change during this period.

The terms 'seed maturity' and 'seed ripeness' should be distinguished in studies concerning seed development. A seed is defined as mature when it has attained maximum dry weight (Aldrich 1943 and Grabe 1956). A seed is 'ripe' when it has dried to a moisture content in equilibrium with the surrounding atmosphere.

Hyde et al (1959) has emphasised the importance of a knowledge of seed development in correctly determining the correct harvesting time in pasture grasses. This is also true in the seed production of wheat and other cereals. Andersen and Andersen (1980) have suggested that it would be beneficial to know at which stage of development the accumulation of dry matter terminates and also the rate of seed loss due to delayed harvest. Such information would help to accurately judge the correct time of harvesting.

Studies on seed development in wheat in relation to moisture content and seed weight were first carried in the early 1900's (Brenchley 1912, Saunders 1928, Wilson and Raliegh 1929). More recent studies however have concentrated more on the physiological aspects of seed development, chemical composition and seed quality (Wellington 1956, Frey et al 1958, Walpole and Morgan 1970, Rawson and Evans 1970, Klein & Harmond 1971, Wheeler 1972, King 1976, Sofield 1977, Spierly 1977, Anderson et al 1978, Gordon et al 1979, Mitchell et al 1980 and Anderson and Anderson 1980).

Several workers have tried to more clearly define the different stages of seed development. Wellington (1956) divided the processes of seed development and maturation into four stages in relation to changes in seed moisture content and germination.

He found that a growth stage lasted from 2 to 5 weeks after anthesis when moisture content was very high but fell rapidly and the grains remained green and were incapable of germination. The second stage (ripening) lasted from 5 to 8 weeks after anthesis when the grains reached their maximum dry weight, the harvest ripe stage was reached and the changes characteristic of ripening occurred. During this time the seed moisture content decreased to 19%, and grain germination in the ear was up to 88.5% in the white wheat variety Holdfast and 7% in the red wheat variety Atle. In the third stage, 8 to 13 weeks after anthesis the moisture content varied from 19 to 10% depending on humidity while grain germination in the head increased to 95% for white wheat and 55 to 83% for red wheat. Few of the grains of either variety in the basal spikelets were capable of germinating in the head at this stage. The fourth stage lasted from 13 to 23 weeks after anthesis, when a similar reduction in the moisture content (19 to 10%) enabled all of the grains in the basal spikelets to acquire the ability to germinate (Wellington 1956).

In studies on herbage grasses and legumes Hyde (1950, 1959) described three main stages of seed development - a growth stage, a food reserve accumulation stage and a ripening stage. Supporting three principal stages of seed development and maturation Anderson et al (1980) described that in the first stage, the percentage moisture falls from about 80 to 55%, but there is an increase in total moisture content, total fresh weight and total amount of dry matter. In the second phase, fresh weight and total moisture content are nearly constant, the amount of dry matter increasing and percentage moisture content falling from about 55% to 40%. In the third phase, the real ripening period, the amount of dry matter is almost constant, but total moisture content, fresh weight and % of moisture decrease.

These stages of seed development and maturation are similar in all species of Gramineae, although variation can occur in the total period of development between species, cultivars and also under different environmental conditions. The duration of each stage of seed development in wheat differs in the case of short duration wheat cultivars. Also, the ripening period is shorter at high temperatures than under cool conditions (Wellington 195). At 20^{O}C, the total length of the ripening period was 53 days compared with 83 days at 15^{O}C in wheat (Thorne, Ford and Watson 1968). Changes in seed moisture content also vary with weather conditions. It was found in barley that between 50 and 40% moisture content, the daily decrease in percentage of seed moisture was about 0.7 percent in humid weather but 1.2% in dry weather. When the moisture content had fallen to between 40 and 20% the daily increase was up to 5% per day in dry weather (Gesselein, 1959). Gordon et al (1979), in studies on the seed development traits of four wheat cultivars, found that while slight varietal differences occur with time during seed development the trend of changes in all cultivars remain the same.

Germinability of developing wheat seeds and other cereals has been studied by a number of workers including Wellington (1956), Anderson (1964), and Gordon et al (1979) Earlier workers such as Harlan and Pope (1922) and Nutman (1941) have shown that the germinability in barley and wheat develops about 5 days after anthesis. Wellington (1956) studied the germination behaviour of two wheat cultivars and factors affecting seed development. He showed that seeds are capable of germination as early as 3 weeks after anthesis, but need a period of drying or the embryo has to be excised before it is capable of germination. Due to mechanical properties of the pericarp, rather than immaturity of the embryo, wheat seeds (harvested from 3-6 weeks after anthesis) do not germinate immediately after harvest. Drying of premature seeds causes distortion of the mechanical properties of the pericarp and also causes the disappearance of starch from the embryo. These changes result in increased rate of development.

The recommendations of ISTA (1976) which are used to break the dormancy of immature wheat seeds have eliminated the embryo excision technique in assessing the real germination potential of immature wheat seeds. These recommendations prefer to rely on techniques such as prechilling to obtain the necessary dormancy breaking effect. Studies by Gordon et al (1979) have shown that wheat seed germinability develops about 10 days after anthesis, when the seed moisture is still at 70%. Maximum viability of more than 90% is attained about 45 days after anthesis when seed moisture content is less than 10%. The germination potential increases rapidly, with decreasing moisture content. Maximum dry weight is attained about 40 days after anthesis.

2.2.5 Components of Seed Yield and Seed Quality

Engledow (1925) Brooking (1979) and others have expressed seed yield per unit area in terms of its components, namely: -

yield = plants/unit area x ears/plant
x grains/ear x grain weight.

Plant number is the only component which can be directly controlled by seeding rate. The remainder are affected by environment, genotype and plant density. The components of yield may be further subdivided since the number of ears per metre is controlled by two factors i.e. fertile tillers per plant and number of plants per metre. Similarly the number of grains per ear depends on the number of spikelets per ear and the number of grains or fertile florets per spikelet. Total grain weight or seed weight is ultimately dependant on the number of grains and weight of each grain produced (Gedye and Joyce 1978).

Though different workers have different views on the importance of these components, Krishnamurty (1963) has stated that seed yield components are chiefly expressed in terms of grain size in winter wheat varieties and by grain number in spring wheat varieties. There is no doubt that grain yield can be increased by increasing any of above components, but in practice a marked increase in any one component may often lead to a decrease in another component.

Rawson and Evans (1970) showed that the sterility in the basal florets of the central spikelets of wheat ears 2 days before anthesis led not only to compensatory grain setting in normally empty distal florets but also resulted in a 20% increase in yield. Bingham (1967) has also shown that compensatory grain setting mechanisms can also operate through an increase in grain weight at one spikelet position leading to a corresponding decrease in grain number in another spikelet.

After the components of yield, the other important factors controlling seed yield may be broadly divided into physiological processes and developmental processes.

Evans et al (1975) have reviewed the important physiological processes associated with yield such as ear photosynthesis and respiration, patterns of carbohydrate supply to the developing grain and starch and protein storage. They concluded that limitation of these processes to increased yield varies with cultivars and growing conditions specially during inflorescence development when the number of florets are determined, and during grain filling or maturation when the weight of individual grain is determined.

Hill (1980) describes that the processes of pollination anthesis, fertilisation and seed set are major seed formative factors. Hebblethwaite et al (1980) also emphasised the importance of these processes which determine the final component of seed yield i.e. number of fertile florets.

Important work on the effects of temperature and other environmental factors on grain number and grain weight have been conducted by Friend (1965 a); Asana and Williams (1965); Wardlaw (1970); Marcellos and Single (1972); Sofield et al (1974); Warrington et al (1977), Chowdhary and Wardlaw (1978); and Brooking (1979). These studies show that temperatures of the order of 10°C to 15°C are most favourable for tiller production, with 15 to 18°C being the most favourable for grain filling in wheat. Higher temperatures (especially above 30°C) generally are associated with reduced yield (Brooking 1979). An increase in temperature often causes an increase in the rate of grain growth whilst decreasing the duration of grain filling. Genotypes show some variation in these responses to temperature (Brooking 1979).

Seed weight and seed germinability are essential seed qualities which may be affected by a number of factors, including environmental conditions before and at harvesting.

A great deal of work has been done to study the importance of seed weight on germination, plant establishment and final seed yield. A clear relationship between seed size and seed yield has been established. Kaufmann and McFadden (1963), Autenson and Walton (1970), and Dasgupta and Austenson (1973) have demonstrated that heavier seeds produce higher crop yields than lighter seeds. Despite this observed effect the precise relationship between seed size and seed vigour is not yet clear (Carver,1980), although it is often found that smaller seeds produce weak seedlings.

Maximum viability at harvest is necessary for two reasons; firstly to obtain maximum viable seed yield and secondly to maintain seed storability. However, seeds formed under environmental stress conditions are generally poor in terms of both seed weight and viability. In ryegrass Bean (1980) obtained greatest seed weight per inflorescence from plants grown at 20/15°C and highest percentage germination from the seeds produced from plants grown at 25/20°C. In wheat, a reduction in seed weight under different environmental conditions and particularly under temperature stress conditions has been reported by several workers (Asana and Williams 1965; Olugbemi 1968; Wardlaw 1970; Sofield et al 1974; Single 1975; Warrington et al 1977 and Meredith 1977). By comparison the amount of available literature on the germinability of wheat seeds produced under stress conditions is limited.

The influence of the position of the seed on the inflorescence on seed weight and germination has been described by Bean (1980) in ryegrass. The seeds produced on the basal florets of the spikelet are heavier than those produced from the terminal florets. No difference was found in germinability in this study although Anslow (1964) observed variations in germination capacity of seeds from basal florets and terminal florets of the spikelets. He found that the seeds from the middle spikelets gave highest germination and that the terminal seeds in each spikelet were also of lower germination than the basal ones.

2.3 STERILITY

The inability of some florets to set seed is a common feature in many plants. This 'sterility' effect may be generally induced by genetic factors such as 'incompatibility' 'male sterility', 'cultivar character' or lack of effective pollination. In addition, however a number of environmental factors can play an important role in affecting the extent to which floret sterility occurs. In particular, the onset of unfavourable stress conditions such as temperature radiation and insects and fungi can all seriously increase the sterile:fertile ratio with a subsequent reduction in crop yield. In wheat sterility caused by low temperatures during the flowering period has been reported in several countries; including Australia and New Zealand (Olugbemi 1968; Single 1971; Meredith 1977). In other studies the relationship between low temperature and sterility in wheat has not been precisely documented. For example CIMMYT reports in 1975, 1976, 1977 suggests that floret sterility in wheat in Nepal may be a serious problem; particularly in years when abrupt changes in temperature and relative humidity occur during the period of anthesis and early seed development. This environmentally induced sterility may be limited to a few florets on a spikelet or may affect the complete head. Thus many workers differentiate 'floret sterility' from 'spikelet sterility' within a head and have measured the percentage of sterility in different ways. Olugbemi (1968) measured sterility on the wheat head on the basis of whole spikelet sterility (i.e. all florets sterile) rather than on the fate of individual florets. He also examined spikelets at three different locations on the wheat ear (spikelet 3rd from the base spikelet 3rd from the top and middle spikelet) to record changes in the pattern of sterility within the spike Campbell et al (1969) measured sterility based on the first and second florets and plotted the frequency of sterility according to the sterile florets found in different spikelet positions. Single (1966) in wheat, and Maun et al (1969) in Poa pratensis L. and Marcellos and Single (1971) in wheat all measured the percent sterility based on individual florets. Barnard (1955), Evans et al (1972) and Warrington et al (1977) have measured the percentage of grain formation within a spike based on floret position on individual spikelets rather than sterile florets.

2.3.1 Genetic Sterility - Cultivar Charactistics

The susceptibility of different cultivars to unfavourable environmental conditions can result in some differences in the extent of floret sterility. In tests on more than 400 different wheat cultivars, however, Single (1961) reported that the degree of susceptibility to cold temperature stress which causes sterility, is very narrow between varieties. Gott (1961) suggested in this respect that due to the narrow genetical range it is often difficult for plant breeders to select a resistant variety against frost damage. Marcellos and Single (1972) reported differences between 8 wheat cultivars regarding their response to photoperiod and temperature during the post anthesis development.

2.3.2 Environmental Sterility

Adverse environmental conditions during the flowering of wheat heads may cause sterility (Peterson 1965; Martin and Leonard 1965). In particular Salmon (1914), has referred to drought, hot winds and insects or parasitic fungi as major causes of floret sterility in addition to temperature stress.

(a) Low temperature stress

Gregory and Beeson (1926) reported injurious effects on different wheat florets of the same head as a result of cold wave of $-3.7^{o}C$ to $+2^{o}C$ in Indiana in 1925. They suggested that the extent of floret sterility varied in the same head due to the different stage of development of individual florets. This explained the differential crop damage effect from place to place according to the stage of plant growth. This observation was reinforced by later work by Butler (1948) who reported the failure of the lower spikelets to set grain when a wheat crop was damaged by frost in New South Wales. He suggested that this sterility was caused by the destruction of male and female parts. More critical work on the low temperature sterility effect in wheat was carried out by Livingston and Swinbank in 1950. They studied the effects of low temperature stress from $+2^{o}C$ to $-4^{o}C$ at 10 different stages of plant growth at 5 different exposure times. Sterility occured most rapidly and extensively at temperatues below freezing point, heads at the stage of anthesis being most susceptible. At $-4^{o}C$ an exposure time of 2 hours was sufficient to cause more than 50% floret sterility after heading.

It has also been reported that the critical low temperature at which damage occurs in wheat depends upon the weather conditions prevailing prior to temperature stress. Studies by Single (1961) have shown that sterility may occur approximately at $-3^{o}C$. He also found that while cold resistant varieties are rare some varieties survive at $-7^{o}C$ without exhibiting floret sterility. It has also been noted that those varieties which do not require vernalisation grow quickly and are early maturing. Such varieties are more commonly affected by spring frost temperatures at flowering with a corresponding increase in the environmentally induced floret sterility (Gott 1961). Low temperature stress of -2.2°C for 3 hours can cause more than 50% floret sterility in wheat at anthesis. This stage of development of the plant a few days before anthesis to a few days after anthesis affects its susceptibility to cold injury. The conditioning temperature prior to stress is therefore very important in determining the percentage of sterility. Under conditions of short low temperature stress duration, complete head sterility generally does not occur since one spike of wheat consists of many florets of different ages. As a result each floret reacts to stress temperature independently and will become either sterile or fertile as a direct result of its susceptibility or resistance depending on its developmental stage (Olugbemi 1968). Although extreme temperature stress of long duration can result in complete floret sterility Metlyakova (1977) has shown that under moderate low temperature stress conditions the androecium is more susceptible to injury than the gynoecium. The influence of temperatures on the physiological process described by Micheal (1970) include chemical reactions, gas solubility, mineral absorption and water uptake. The rate of chemical reactions doubles with every 10°C temperature increase up to 20 to 30°C. However at temperatures below 10°C, the frequency with which reactants reach the needed energy level is low and enzyme activity is minimal. The mechanism of damage due to freezing temperatures on plant tissues and cells have been the subject of investigation over many years. Literature on this particular subject has been provided by Livitte (1941, 1958), Asahina (1967) and Olein (1967). In a series of studies on frost injury to wheat (Single 1964) and to plants generally (Olein 1967) it has been concluded that the damage due to freezing temperatures depends on factors governing the spread of ice formation and cell reaction to the presence of ice. Under freezing conditions ice formation first occurs in the intercellular spaces. As long as the temperature does not fall too low, this process is reversible and may occur on repeated occasions during the growth of plants without damage. However, when the temperature falls beyond a critical point, the cell membranes are unable to resist internal ice formation. This factor coupled with dehydration and the pressure exerted by the expanding ice masses results in intracellular ice formation and cell death.

(b) High temperature stress

Salmon (1914) observed that the extent of floret sterility at high temperatures (over 40°C) is greater than at low temperatures (-2°C). As with low temperature stress the conditioning temperature prior to high temperature stress plays an important role in determining the amount of sterility. Florets at the early anthesis and anthesis stages of development are most susceptible to high temperature induced sterility. Asana and Williams (1965) have reported grain yield losses as high as 16% for each rise in stress temperature of 5°C over 25°C. This effect is a direct result of increasing floret sterility at high temperatures.

Differential effects on the floral organs as a result of temperature stress have been reported by Dotzenko (1967). He found that the female organs are more susceptible to damage by high temperature while male organs are more affected by cold temperature stress. He also suggested that while there are some differences in the susceptibility of male and female floral organs due to low or high temperature, both parts are equally damaged when the intensity and duration of stress increases.

Besides, damage to male or female parts before fertilisation, Livingstone and Swinbank (1950) also observed injury to fertilised ovules which had begun to develop. This supports the findings of Pope (1943) in which ovule injury at 40°C was reported.

Regarding the stages of plant development at which plants become susceptible to stress temperature, Korovin and Mamaev (1975) reported a decrease in seed yield when plants were stressed during the seedling stage. However most of the work done to find the stage at which plants are most susceptible to temperature stress shows that it almost invariably occurs after head emergence and that susceptibility increases during anthesis. (Livingstone and Swinbank 1950, Olugbemi 1968).

The effect of temperature extremes during floral induction, initiation and development arrest the development of ear components such as spikelet and floret numbers but do not influence floret sterility. Only at the later stages of floret development are the imperfect florets which became sterile produced.

The susceptibility of the flowering stage is also confirmed by Waldron (1932); Butler (1948); Chatters and Schlerguber (1953) and Anonymous (1960). Single (1964) has given the explanation that the glumes give protection to the flower parts before they are opened. However florets are directly exposed to stress conditions at anthesis, making them more susceptible to increased sterility at this stage of development. Studies on the pattern of sterility within an individual wheat spike have shown that most sterile florets generally occur at the apical region rather than at the base of the spike (Livingstone and Swinbank 1950).

Most studies involving identification of the most susceptible stages are based on effects occuring at pre-anthesis, anthesis or during grain development. Such studies however generally do not use quantitative measurements in terms of days. Olugbemi (1968) has however suggested the most susceptible stage occurs in wheat from about one week before anthesis to a few days after anthesis.

This suggests that temperature may not only affect the floral parts directly but also the fertilisation process. During subsequent embryogenesis when cell multiplication is complete, the growing tissues are more resistant to unfavourable conditions, although embryonic roots and the vascular system of the coleoptile and epiblast may still be affected (Scherbatyuk et al (1977).

(c) Other environmental causes and interaction of different factors

Besides temperature, stress conditions imposed by shortages in other plant growth requirements such as soil nutrient levels and moisture may also cause sterility in wheat.

Asana (1961); Langer & Ampong (1970); Wardlaw (1971); Koldrup (1976) and Angus and Monchur (1977) have all reported increased floret sterility caused by water stress during floral initiation and development and also during grain filling. Aspinall et al (1964) in studies on the effects of water stress on barley have suggested that those organs which are growing rapidly are most affected by water stress.

Single (1964), and Langer and Liew (1973) have both reported reduced numbers of fertile florets per spikelet when insufficient nitrogen is available to the wheat plant during its early stages of development before ear emergence. More recently, Graham (1975) has shown that copper deficiency in wheat plants can cause the development of smaller non-viable anthers and subsequent floret sterility.

Evidence suggests that diseases and insects may also be responsible for producing sterile heads. Johnstone (1960) reported that infestations by thrips directly causes low seed set in cocksfoot. Similarly, several wheat diseases and insect infestations can cause poor seed set.

Hot winds during the flowering period can result in a serious increase in floret sterility in wheat. This problem seriously affected wheat production in the Northern plains of India before the introduction of early maturing wheat varieties (Asana and Williams 1965).

The interaction of temperature and water stress during heading and flowering is particularly injurious to wheat plants (Peterson 1965, Langer and Ampong 1970).

Wardlaw (1970) reported an interaction between light and temperature affecting seed formation, while Koldrup (1976) found the interaction of low soil moisture, dry air and high temperatue reduced seed setting significantly.

Hoshikawa's (1960) study on the fertilisation process in wheat also shows that the interaction effect between nitrogen level and temperature affects the process of fertilisation and seed formation.

The response of reproductive developmental phases to temperature is reviewed by Brooking (1979) and shows that final seed yield is the result of interaction of the prevailing temperature at different stages of development but may be further modified by the interaction of genotype and photoperiod. Livingstone and Swinbank (1950) concluded from their experiment that the susceptibility of florets to the freezing temperature is a result of complex interactions of many factors.

2.3.3 Methods of Overcoming Environmentally Induced Sterility Problems

Gott (1961) suggested that because varietal response is very narrow varieties which require a short day length and low temperature for their floral initiation and development should be selected so that flowering time can escape spring frosts. Emphasis should be placed on date of planting to ensure that flowering time is not effected by low spring temperatures. Conversely,in areas such as the northern plains of India where sterility is caused by hot winds and high temperatures varieties with a short flowering duration or early maturing varieties should be selected (Asana and Williams 1965). From an agronomic point of view it is therefore important to select a date of planting and variety which allows the crop to avoid the effects of low or high temperature stress, particularly during the period from a few days before anthesis to a few days after anthesis since during this period plants are most susceptible to stress injury (Olugbemi 1968, Single 1975). In an analysis of the yield components of wheat Langer (1978) has shown than an increase of one grain per ear can increase yield by up to 300 kg/ha. Conversely the effects of even slightly increased floret sterility can represent a yield loss many times greater than this figure. This later effect can often be overcome by controlled crop management including attention to water supply, nitrogen level, plant density and planting time (Langer 1978).

3. MATERIALS AND METHODS

3.1 Experimental Design

An experiment was conducted in which three different low temperature regimes were applied at five different stages of growth for a period of six hours and effects were assessed at six sequential harvests. The temperatures used were: -

1. -4^oC (T1)
2. -2^oC (T2)
3. $+3^oC$ (T3)

Temperature treatments were applied at the following stages of plant growth: -

1. Pre anthesis (S1)
2. Anthesis (S2)
3. 3 days after anthesis (S3)
4. 6 days after anthesis (S4)
5. 9 days after anthesis (S5)

Six sequential harvests were taken at: -

1. 5 days after anthesis (H1)
2. 10 days after anthesis (H2)
3. 15 days after anthesis (H3)
4. 20 days after anthesis (H4)
5. 25 days after anthesis (H5)
6. Final harvest at maturity (42-45 days after anthesis) (H6)

For each treatment three replicates of three plants each were used. Plants were selected at random from a plant population of 1040 plants grown under uniform conditions in one glasshouse.

The variables measured at each harvest from each treatment were: -

1. Date of anthesis of the primary and secondary seedheads on each plant to identify the stage of development.
2. Number of sterile florets and their location on the seedhead.
3. Components of seed yield such as number of spikelets florets and grains with their location on the seedhead.
4. Total seed yield per three plants i.e. per replicate, 100 seed weight and number of tillers per plant.
5. Germination of seeds from primary and secondary seedheads.
6. Classification of grains according to their stage of development and their number and location within the spike.
7. Microtome sectioning of different ovule types to assess the physiological development of embryo and endosperm.

Each of the above measurements were carried out separately on seedlots from primary and secondary seedheads. However, microtome sectioning of ovules was carried out on primary seedhead samples only.

3.2 Trial Establishment and Management

3.2.1 Sowing and plant growth

The wheat cultivar 'Karamu' was obtained from the Seed Testing Station Ministry of Agriculture and Fisheries. The seeds were treated with 'Captan' fungicide. These seeds were sown in 10cm plastic pots on 14 November 1979. Three seeds were sown per pot, but 10 days after sowing, the plants were thinned to one plant per pot, the most uniform plant being selected. The total number of plants grown was 1040. The potting mixture used was a 50:50 peat and sand mixture with 150g of osmocote (4 months release), 150g superphosphate, 500g lime and 20g frittered trace elements in each 100 litres of the mixture.

The pots were kept on wet pads on benches in the glasshouse. The benches were rotated every 10 days to maintain uniform plant growth. The temperature range in the glasshouse varied from a minimum of 5°C to a maximum of 25°C during vegetative growth and was increased to 30°C after the flowering stage. In order to avoid border effects, the pots were also rotated each week within the benches.

The nutrient level in the potting mixture was maintained by adding Hoagland's mixture No 1 at the rate of 100ml per pot twice per week, pots were irrigated with water only between each nutrient application as necessary. Powdery Mildew (Erysiphe graminus) was controlled by spraying with Benlate fungicide. For insect control, Vapona was used to fumigate the glasshouse. Small white-flies were controlled by Diazinon granules.

3.2.2 <u>Sampling plants for temperature treatments</u>

According to the experimental design, the temperature treatments of -4°C, -2°C and +3°C were to be applied at five different stages of plant growth from pre-anthesis to 9 days after anthesis.

To ensure the sampling of plants at the correct growth stage, each primary tiller as well as all secondary tillers were tagged on the first day of anthesis. Anthesis was defined as the date when the first anther was visible in any of the florets in the head (Plate 1). In the present study anthesis was first observed on 1 January 1980, 47 days after sowing. While the plants were still flowering, a group of 162 plants which were still in the pre-anthesis stage (one

Plate 1: A wheat seed head showing the onset of anthesis

day prior to anthesis) or at anthesis were selected at random from all the benches. These plants were marked with green labels to indicate the stage 1 treatment. The plants were selected in the afternoon of 7 January. They were then grouped into 3 lots for temperature treatment. They were staked and watered. On 8 January these plants were transferred to the climate laboratories at the Plant Physiology Division, DSIR, Palmerston North.

Similarly, for the stage 2 treatment, which was to be applied as near as possible to the onset of anthesis, a further group of 162 plants with their mean flowering date on 8 January were selected. They were watered, staked and transferred to the climate laboratory on the next morning. For the stage 3 treatment, another group of plants with mean flowering date on 7 January were selected and transferred to the climate laboratory on 10 January, exactly 3 days after anthesis. For stage 4 and 5 treatments, plants with mean flowering dates on 8 and 6 January respectively were selected and treated on 14 and 15 January. Plants in these treatments were therefore treated exactly 6 days and 9 days after anthesis, respectivelly.

3.2.3 Method of temperature stress treatments applied

The controlled environment (C.E.) as described by Warrington (1971) and the frost rooms as detailed by Robotham _et al_ (1978), were used to apply stress temperature treatments to the plants.

For each low temperature stress treatment the plants were brought to the C.E. room 6 hours ahead of the stress. The conditions in the rooms for this pre-stress period were $10^{o}C \pm 0.5^{o}C$, relative humidity $40 \pm 5\%$ and $150W_{n}^{-2}$ photosynthetically active radiation. The lighting system consisted of 4 x 1kw Sylvania 'Metal arc' high pressure discharge lamps together with 4 x 1kw Philips tungsten iodine lamps (Warrington _et al_ 1978). The lights were switched off at the start of the temperature decline and on again at the end of the post-stress temperature rise.

The temperature decline occurred over 6 hours to either $+3^{o}C$, $-2^{o}C$ or $-4^{o}C$. The stress temperature was maintained for 6 hours. Thereafter, the temperature was raised to $10^{o}C$ over the next 4 hours. During the stress temperature period, the relative humidity of the air was approximately 100%. For stress temperatures $-2^{o}C$ and $-4^{o}C$, the soil temperature in the pots were kept above $5^{o}C$ with a simple soil heating system (Robotham _et al_ 1978).

Some slight variations in the stress temperatures and relative humidity occurred in some treatments due to failure of the defrosting machinery, but in no case was the variation more than $\pm 0.8^{o}C$ or $\pm$10%RH.

The photosynthetic irradiances were 152, 160 and 159 W m^{-2} in the $+3^{o}$, -2^{o} and $-4^{o}C$ stress rooms, respectively.

The plants under a temperature stress of $-4^{o}C$ for 6 hours in the freezing room is shown in the plate 2.

3.2.4 Harvesting Method

The plants from each treatment were harvested at intervals of 5 days, beginning 5 days after anthesis. At each stage of stress the plants have different flowering dates. So the harvests for each stage were carried out on different dates according to the mean flowering date of that particular stage. A harvesting plan is given in Table 3.

Table 2: Sequential harvesting date at intervals of 5 days after anthesis for plants stressed at 5 different stages.

Stages of Stress	Mean Flowering Date	Harvest Date for H_1 to H_6					
		H_1 A+5 days	H_2 A+10 days	H_3 A+15 days	H_4 A+20 days	H_5 A+25 days	H_6 (at maturity) A+(43-45)
	Jan.	Jan.	Jan.	Jan.	Jan.	Feb.	Feb.
S_1 *A-1day	9	14	19	24	29	3	20
S_2 A+1day	8	13	18	23	28	2	20
S_3 A+3days	7	12	17	22	27	1	20
S_4 A+6days	8	13	18	23	29	3	20
S_5 A+9days	6	11	16	21	26	31	20

*A = Anthesis

At each harvest, 3 plants with 3 replications per treatment were harvested. The primary head of each plant was kept separate from secondary heads. After harvesting, the secondary heads were left to dry in paper bags at room temperature while the primary heads were dissected as soon as possible (either the same day or within 1-4 days after storage at 5°C).

Plate 2: Plants treated at $-4^{o}C$ in the freezing room of the climate laboratory, PPD, DSIR.

3.3 Measurements

3.3.1 Ovule development

In order to assess the floret development, the florets were classified into 'A', 'B', 'C', 'D', 'E' and 'R' categories, according to their stage of ovule development.

An ovule was defined as 'A' when the ovule was of normal size with active stigmas and it was presumed that at this stage the floret had not been fertilised (Plate 3a). At a later stage when the ovule had swollen, and assumed a bilobed and conical shape with withered stigmas, the ovule was classified as 'B' (Plate 3b and Plate 4). When this 'B' stage developed further the ovule became elongated in a cylindrical fashion, typical of a normal caryopsis, the ovule was then defined as 'C' (Plate 3c). If ovule types 'A' or 'B' did not develop into 'C' and eventually the ovule died then this ovule was classed as a 'D' (Plate 3d). The ovule 'D' was shrunken, shrivelled and misshapen and greatly reduced in size. If the ovule had already been swollen and thereafter became mishapen or a partially swollen and distorted conical shape it was classified as 'E'. Finally florets which were not developed perfectly and the floral structures were incomplete (with an absence of male or female organs) were classified as rudimentary or 'R' (Percival 1921)(Plates 5 & 6). The tiny basal spikelets in which florets were not developed were also classified as 'R' (Plate 6).

These types of florets were recorded on all 3 primary heads per treatment and on 3 secondary heads selected at random from the secondary heads present per treatment.

3.3.2 Percent fertility and sterility

Percentage fertility was calculated on the basis of the percentage of type 'C' ovules present in the total ovules per head, i.e.: $(\frac{C}{total} \times \frac{100}{1})$. The percentage sterility

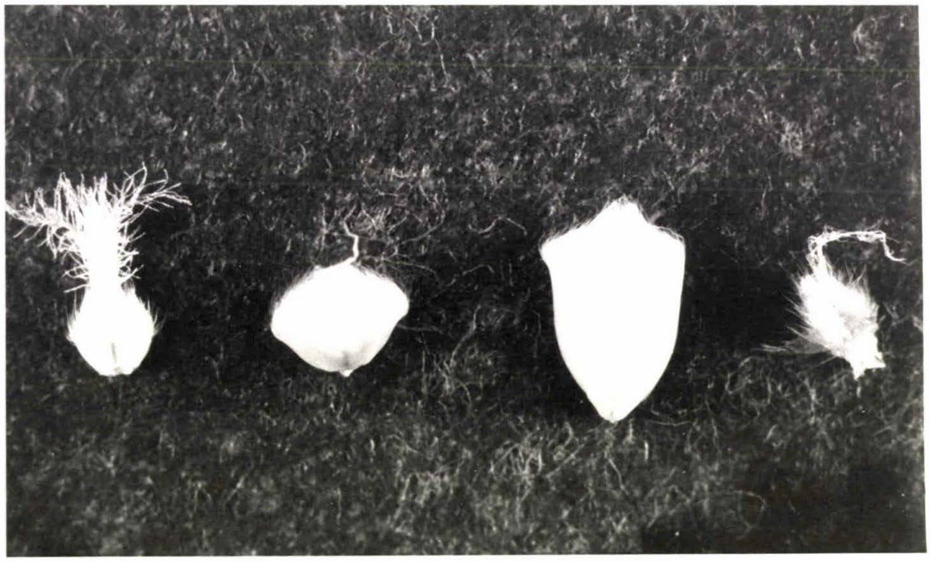


Plate 3: Ovule categories used to distinguish different stages of early grain development in wheat.

From left 'A' normal, unfertilised ovule before anthesis.
'B' conical shaped, swollen ovule 1-3 days after anthesis.
'C' cylindrical shaped, normal caryopsis.
'D' shrunken, shrivelled, sterile ovule.

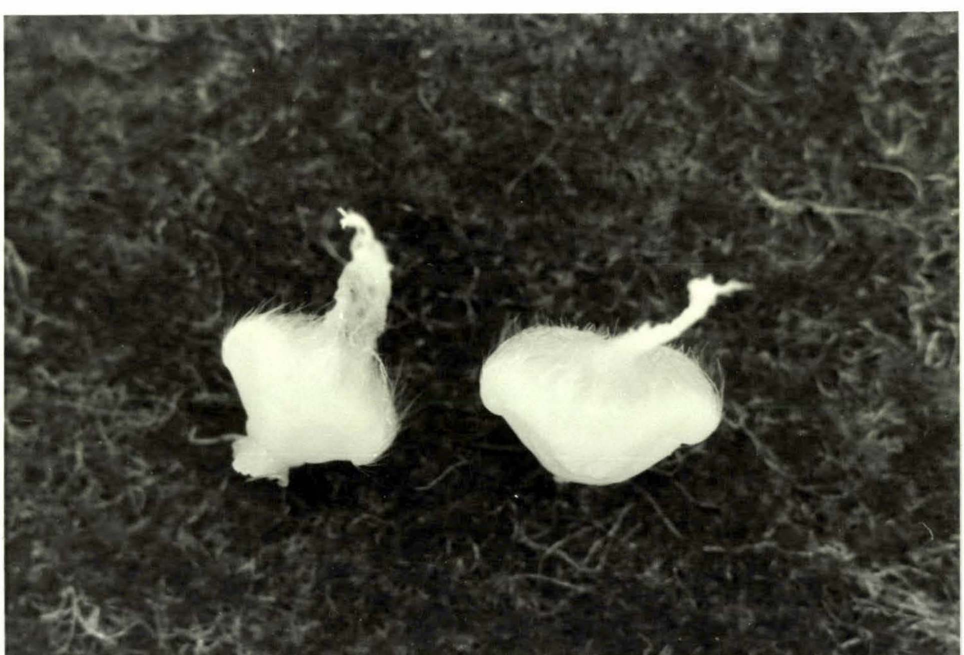


Plate 4: Enlarged view of conical shaped, swollen 'B' type ovules in wheat.

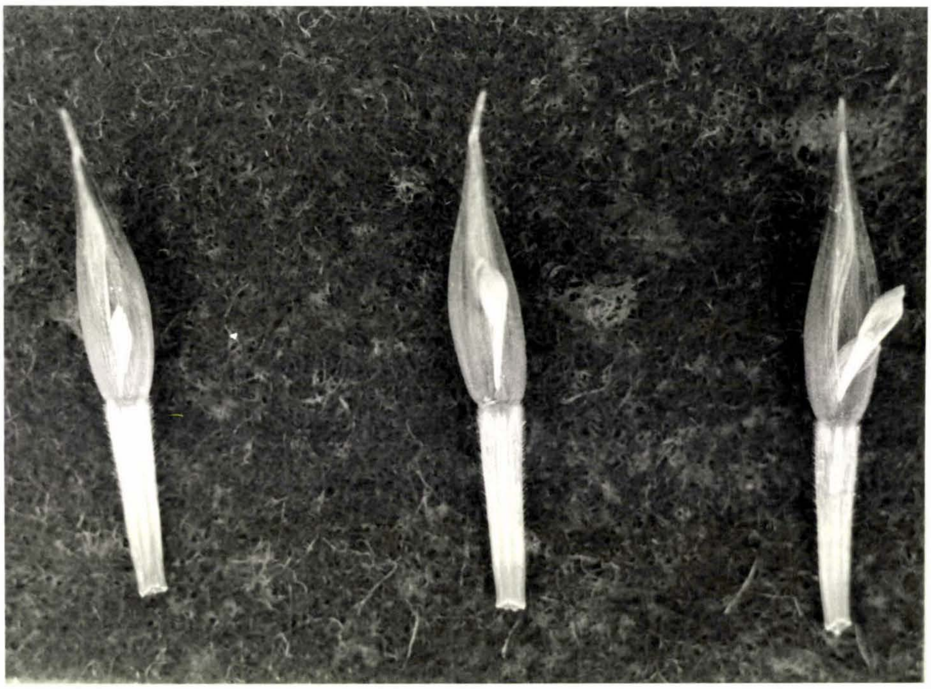


PLATE 5: Typical rudimentary type terminal florets with reduced floret structures.

Plate 6 : Top row; 'R' rudimentary terminal wheat floret, lacking either male or female structures or both.

Bottom row; 'R' rudimentary tiny basal spikelets.

was calculated in two ways, i.e.;

Relative sterility (RSSA) which is the percent of sterile florets, $\frac{(D + R)}{total} \times \frac{100}{1}$, or

Sterility Index which is sterility due to ovule type 'D' only. It was calculated as $(\frac{D}{total} \times \frac{100}{1})$

Sterility measurements were recorded on all three primary heads per treatment and on three secondary heads selected at random from each treatment.

3.3.3 Ovule types, percent fertility and sterility within a head

To study the ovule types and differential fertility and sterility within a head, the spikelets on each head were divided into three equal parts - top (V T), middle (V M), and bottom (V B). In addition the basal 4 florets in each spikelet part were divided into 2 groups, the basal 2 florets being grouped as bottom (HB) and the next 2 upper florets grouped into top (HT). Other florets if present were not analysed. These six positions within a seed head are illustrated in Figure 1.

The position number of each spikelet and the position of each floret on each spikelet were recorded during floret dissection in order to locate the position of different ovule types, and differential percent fertility and sterility within the seedhead.

3.3.4 Seed yield and components of seed yield

After dissecting the seedheads and recording the ovule types the grains from each treatment were collected, counted and total seed weight per head was recorded. Mean hundred-seed weight was calculated on the basis of total seed weight divided by total seed number.

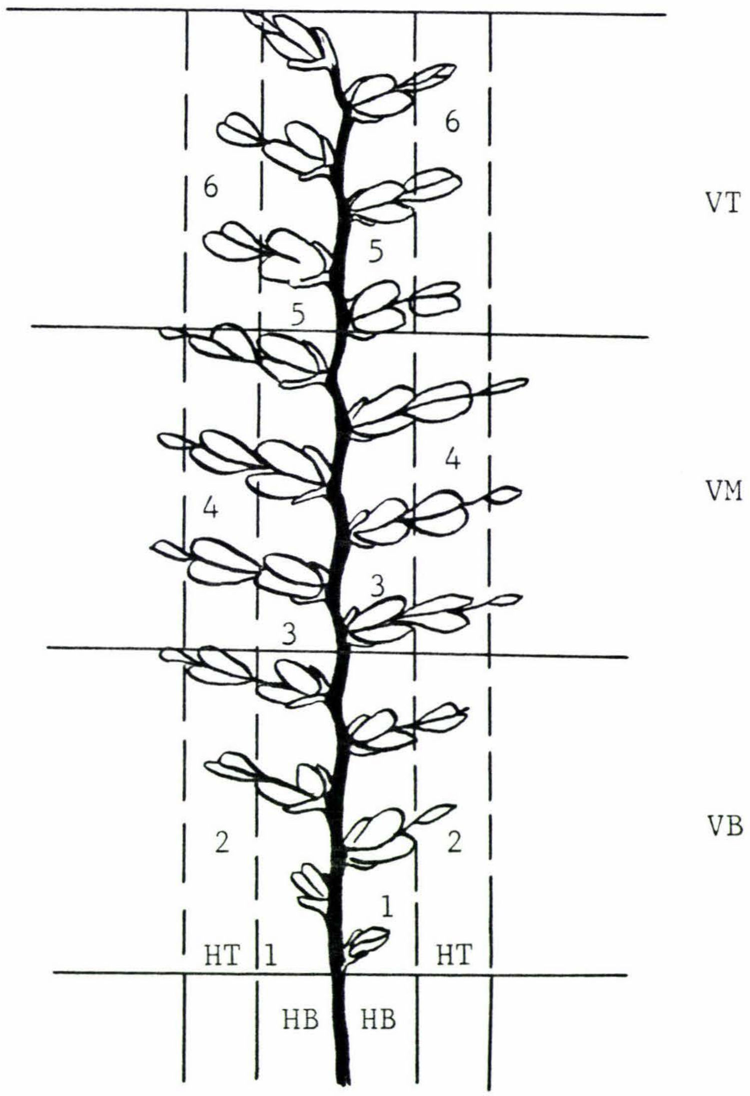


FIGURE 1: A wheat spike, showing spikelets and florets divided into 6 positions to study the variations in the number of ovule types, fertility and sterility within a seedhead.

3.3.5 Germination Test

Germination tests on each sample per treatment were carried out according to the ISTA Rules (1976) with some modification where fresh ungerminated seed remained at the end of the normal test period.

The number of seeds tested in the case of primary head seed samples was 3 x 40 seeds and in secondary head seed samples 4 x 50 seeds. In samples where seed numbers were insufficient, the maximum number of available seeds were used for testing. The seeds were tested in rolled paper towelling, pre-chilled at 5^{o}C for 3 days and then transferred to 20^{o}C constant temperature. A first count was done on the 5th day and a final count on the 8th day of test. If samples had more than 5% fresh ungerminated seeds at the final count, a number of different techniques were used to encourage more complete germination i.e. extension of the test period for a further 2 days, rechilling for 2 days at 5^{o}C, transferring tests to 15^{o}C constant temperature for 7 days, soaking substrate in 0.2% KNO3 and use of a 5^{o}C-20^{o}C alternating temperature with supplemental lighting for 7 days.

All of these techniques assisted in reducing the number of fresh ungerminated seeds and allowed a more accurate assessment of germination potential.

3.3.6 Viable seed yield

The product of seed yield by the fraction germinable was used to determine viable seed yield.

3.3.7 Ovule anatomy (Microtome section studies)

(Paraffin Method)

Samples of A, B, C and D floret types were collected from primary heads from treatments.

These ovules at different stages of development were fixed into F.A.A. solution (Formalin, Glacial acetic acid and 70% ethyl alcohol 12:1:17). Dehydration, infiltration and embedding were followed according to the standard process outlined by Johansen (1940) with few modifications. This paraffin method was also used by other workers to study the ovule development in wheat and other grasses (Hill 1971, Bhatnagar & Chandra 1976).

Following dehydration in 70% alcohol for 5 hours, 90% alcohol overnight and two changes of absolute alcohol during the next day, the specimens were dehydrated in 50:50 xylol : alcohol for 10 hours, and changed to 100% xylol during the next day. Melted wax was added every two hours. When the vials were full, half of the mixture of xylol and wax was decanted and the volume made up again with wax. This process was repeated during the next day. Thereafter the whole mixture was replaced by pure melted wax. Additions of melted wax continued for 3 days each morning and evening, until the xylol could not be detected by smell.

After gradual infiltration, the material was embedded in wax using a Tissue Tek II machine (Tissue embedding machine). The wax blocks were removed from the container and stored in dust-proof containers before sectioning.

Microtoming was carried out on a rotary microtome set to cut sections 10 μ thickness. Haupt's adhesive was used to stick the ribbon sections to microscope slides using the procedure described by Johansen (1940). The slides were allowed to dry overnight at 30^{o}C and stored in dust-proof boxes if staining could not be carried out immediately.

Before the sections were stained, the paraffin was removed by immersion of slides in xylol for at least 5 minutes. The slides were then placed in each of the following solutions for ½ second, 50/50 xylol : absolute alcohol, absolute alcohol and alcohol solutions of 95%, 85% and 70%

and finally in water only.

The sections were then stained with 0.5% Toluidine Blue for 10 seconds. Although other stains such as Safranin were tried, Toluidine Blue was found faster and more convenient. Excess stain was washed off and slides were dried and fixed by immersion in the following solutions for 5 minutes each; 70% alcohol, 85% alcohol, 95% alcohol, 2 beakers of absolute alcohol (100%). Finally, the slides were cleaned by immersing in solutions of; 50/50 xylol : absolute alcohol and in pure xylol twice; and the slides were permanently mounted in D P X.

Difficulties in microtome sectioning

The wheat ovule has a thick ovary wall covered with a hairy surface. These hairs are arranged on the distal flat end as the ovule develops. When the sections were cut, the paraffin ribbon was often torn away from this part and sections were crushed. Bhatnagar and Chandra (1976) suggested the removal of hairs using a sharp scalpel helped to overcome this problem. In the present study, the top hairy portion of the ovary wall was cut away with a sharp blade. However difficulties still occured in obtaining serial sections as the ribbon often continued to tear at some parts.

The orientation of the pro-embryo in the developing wheat ovule is dorsoventral or lateral (Batygina 1969). Due to this variability of orientation and also due to the small size of the ovule it was difficult to adjust the plane of cutting of the specimens to obtain the proper structure of the pro-embryo. According to Batygina (1969) and Bhatnagar and Chandra (1976) specimens should be cut dorsoventrally as well as laterally. The orientation of the embryosac and plane of cutting as suggested by Hoshikawa (1960) (Plate 7) was also tried. Typically crushed sections as the result of improper sectioning is shown in Plate 8.

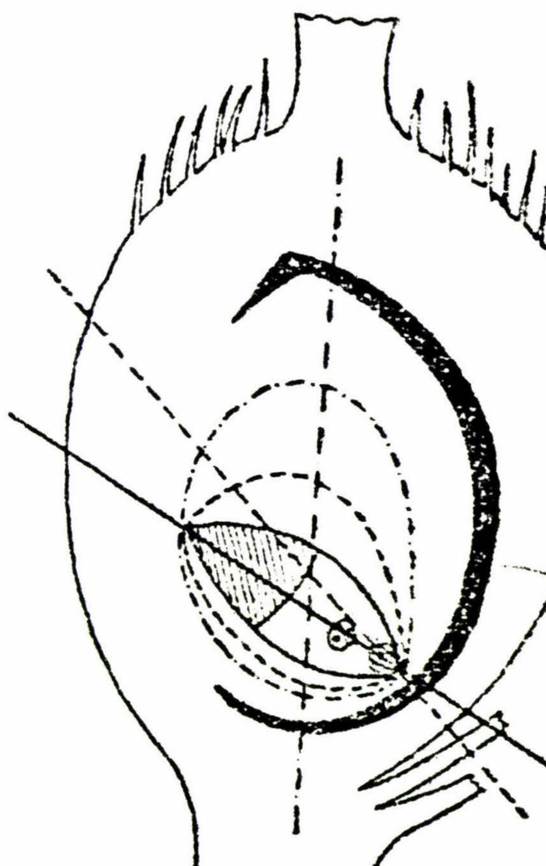


Plate 7: The orientation of the embryo sac of wheat indicating the most appropriate plane of cutting, as shown by Hoshikawa (1960).

Plate 8: Typically torn section of a wheat ovule as a result of improper cutting technique.

3.4 STATISTICAL ANALYSIS

Most of the data were analysed in analyses of variance (Steele and Torrie 1960), the aim being to test for significant differences between temperature stress levels and stage of plant development treatments and for significant interactions at each harvest.

Distribution of ovule fertility and sterility within a seed head was examined by dividing each head into 6 positions (as described in Section 3.3.3) and conducting analyses of variance as outlined above to detect differences between positions.

Duncan's new multiple range test has been used for examining differences between treatment values. The values of any variable that are followed by different alphabetic subscripts are significantly different at $P < 0.05$.

Data were analysed using the Teddybear subroutine on the Massey University B6700 computer.

4. RESULTS

The results are described in 2 sections. The first part is concerned with the effects of low temperature stress applied at different stages of plant development on seed development, yield and yield components. The second part describes the effects of low temperature stress at various stages of plant development on seedhead fertility, sterility, ovule development and anatomy in wheat.

4.1 Seed Development, Yield and Components of Yield

4.1.1 Seed Weight

The effects of temperature stresses of $+3^{o}C$, $-2^{o}C$ and $-4^{o}C$ on 100 seed weight are shown in Figures 2, 3 and 4 and Plates 9, 10, 11 and 12. Raw data and treatment means for all data on 100 seed weights on a per plant basis and for primary and secondary heads are given in Appendices 1, 2 and 3, together with comparisons of treatment means using Duncan's New Multiple Range Test.

In general the level of temperature stress applied ($+3^{o}C$, $-2^{o}C$ or $-4^{o}C$) had far greater effects on 100 grain weight than the effects of the different stages of plant development when the stress was applied. In fact the 5 different stages of plant development (from 1 day before up to 9 days after anthesis) produced similar effects on 100 seed weight within each temperature stress treatment. This trend occurred in both primary and secondary heads and was also evident on a per plant basis at each harvest, including the final harvest, 45 days after anthesis (Appendices 1, 2 and 3).

Although the effects of $-2^{o}C$ and $+3^{o}C$ temperature treatments on seed development were similar (Figure 2) there was a trend for 100 seed weight of seeds derived from secondary heads to be less than that of seeds from primary heads during the early stages of seed development (from 5 to 20 days after anthesis). Thereafter 100 seed weights were similar.

FIGURE 2: Changes in 100 seed weight for primary and secondary head at different intervals after anthesis. Results for each temperature stress treatments are meaned over all stages of development.

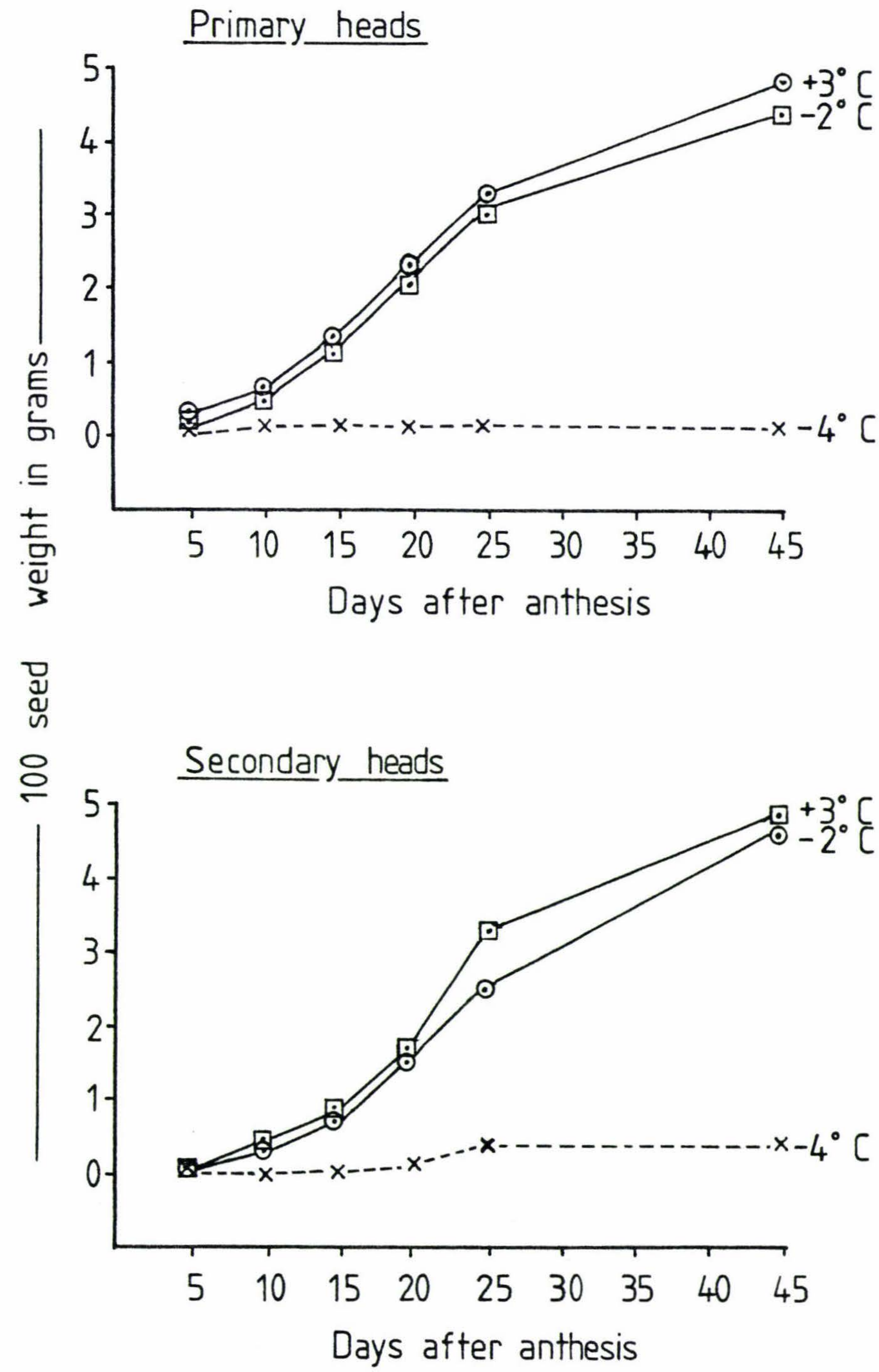
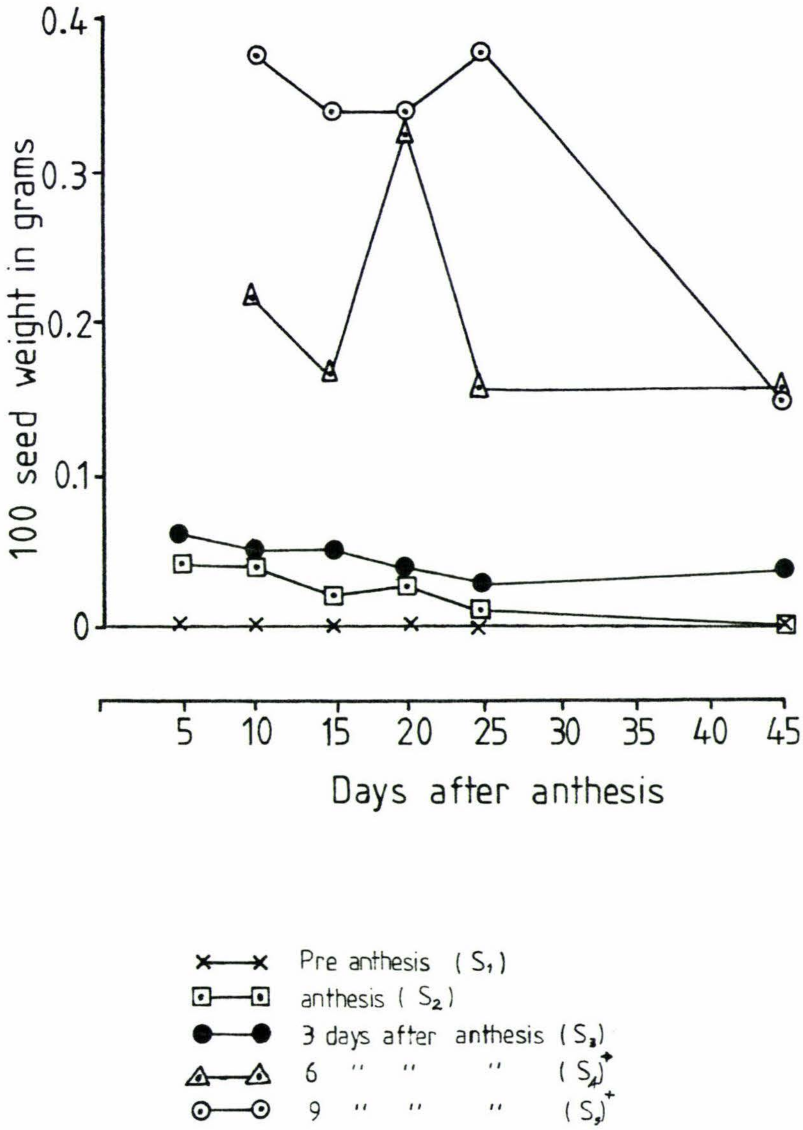
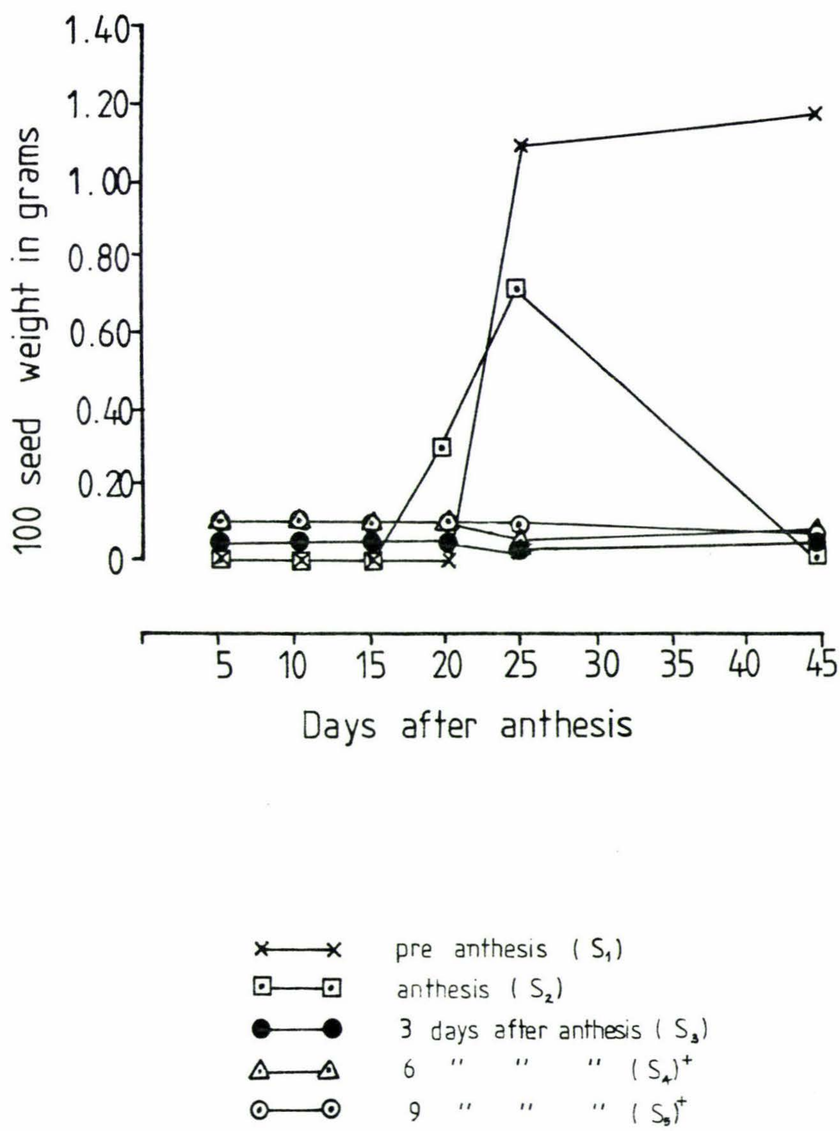


FIGURE 3: Effects of -4°C temperature stress applied at different stages of development on the weight of 100 seeds from primary heads at different intervals after anthesis.



\+ Plants had not reached this stage of development at first harvest (5 days after anthesis)

FIGURE 4: Effects of $-4^{o}C$ temperature stress applied at different stages of development on the weight of 100 seeds from secondary heads at different intervals after anthesis.



+ Plants had not reached this stage of development at first harvest (5 days after anthesis)

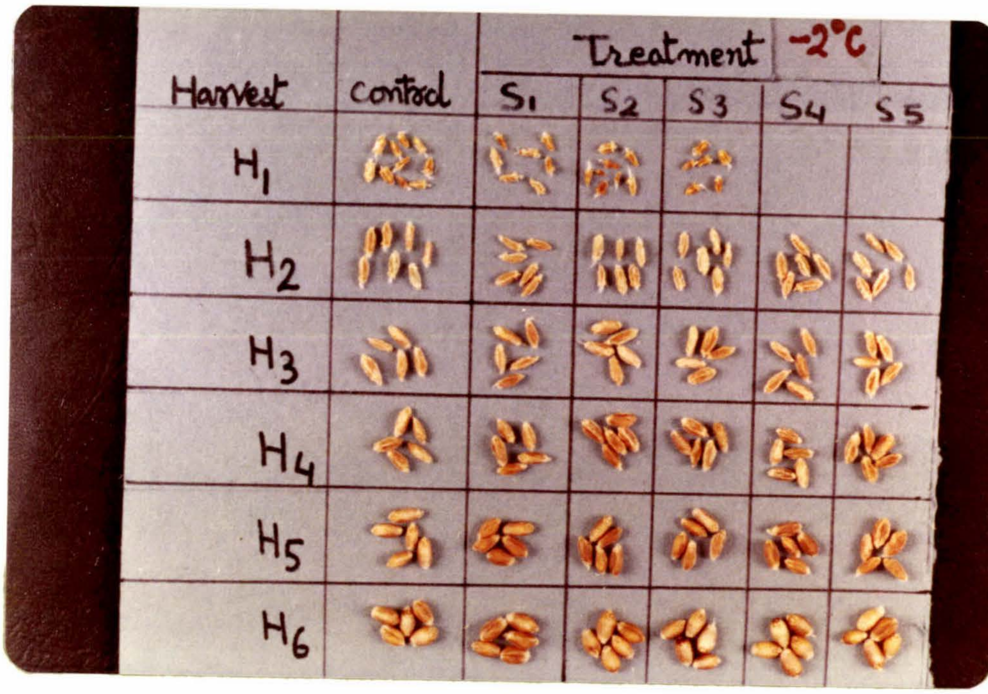


PLATE 9: The seeds produced in primary heads when a temperature stress of $-2^{o}C$ was applied at 5 different stages of plant development. Note the normal grain produced from all treatments at the final harvest, 45 days after anthesis.

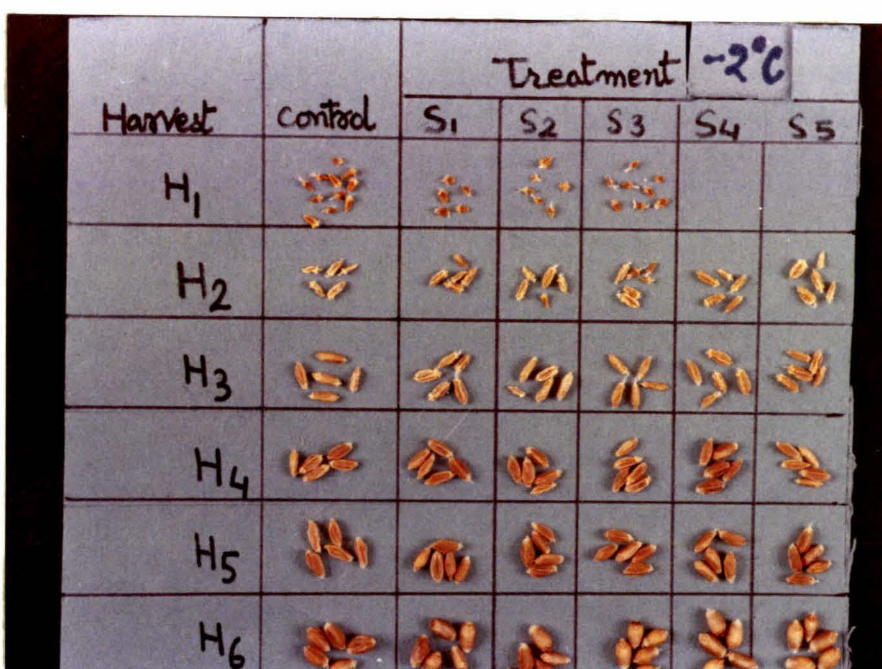


PLATE 10: The seeds produced in secondary heads when a temperature stress of $-2^{o}C$ was applied at 5 different stages of plant development. Note the normal grain produced from all treatments at the final harvest, 45 days after anthesis.

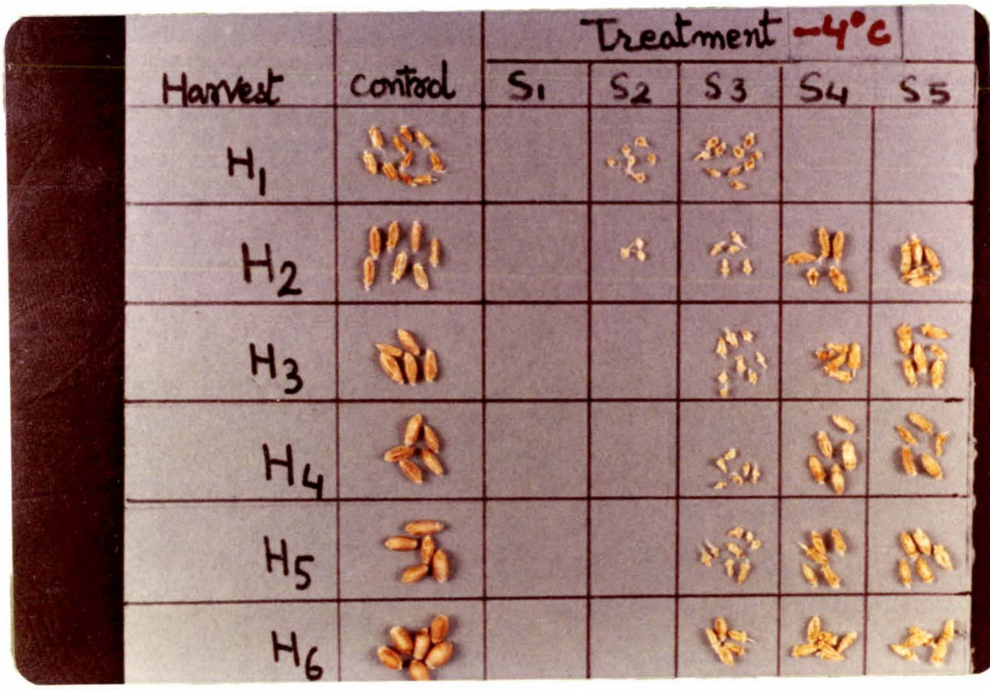


PLATE 11: The seeds produced in primary heads when a temperature stress of -4°C was applied at 5 different stages of plant development (S_1 to S_5). Note the absence of grain produced when the low temperature stress was applied at or before anthesis (S_1, S_2). At later stages of development small, shrunken grains were produced.

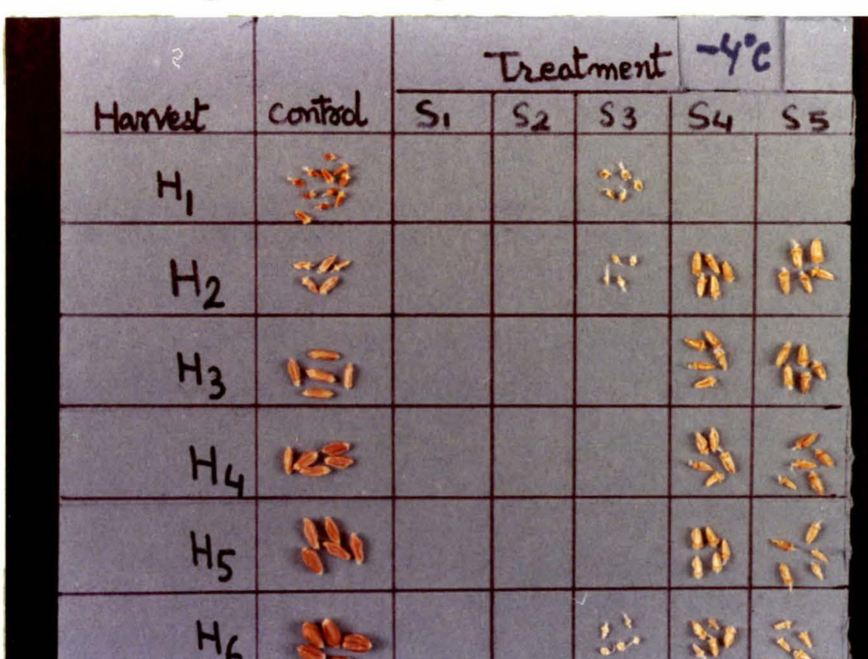


PLATE 12: Then seeds produced in secondary heads when a temperature stress of -4°C was applied at 5 different stages of plant development. Note the absence of grain produced when the low temperature stress was applied at or before anthesis (S_1, S_2). At later stages of development small, shrunken grains were produced.

Maximum 100 grain weight was achieved at the final harvest, 45 days after anthesis for both the $+3^{o}C$ and $-2^{o}C$ temperature stress treatments applied at each stage of development (Figure 2 and Plates 9, 10, 11 and 12).

By comparison a temperature stress of $-4^{o}C$ applied at all stages of plant development (from 1 day before anthesis up to 9 days after anthesis) caused a highly significant reduction in 100 grain weight compared to the $+3^{o}C$ and $-2^{o}C$ treatments at all harvests. 100 grain weight remained very low and relatively constant in all $-4^{o}C$ treatments and ranged from 0 to 0.4 grams only (Figure 2 and Plates 11 and 12).

The effects of the most severe temperature stress ($-4^{o}C$) applied at the 5 different stages of plant development are shown in Figures 3 and 4. A temperature stress of $-4^{o}C$ applied at pre-anthesis, anthesis or 3 days after anthesis resulted in 100 grain weights of almost zero (0 to 0.1 gram) for seeds derived from primary heads (Figure 2 and Plates 11 and 12). When the $-4^{o}C$ stress was applied 6 or 9 days after anthesis there was a slight improvement in 100 grain weight (0.1 to 0.4 gram), which was insignificant for seed-lots derived from primary heads (see Appendix 2). At the final harvest 100 grain weights of seed from primary heads were low and similar for all the $-4^{o}C$ treatments regardless of the stage of plant development at which the stress was applied. However, on secondary heads and on a per plant basis there was a small but significant increase in 100 grain weight when the temperature stress of ($-4^{o}C$) was imposed at pre-anthesis (S1) compared to the results of similar stress applied at all other later stages of development (Appendices 1, 3 and Figure 4).

4.1.2 Seed Number per Head and per Plant

Raw data and treatment means for all data on seed number are presented in Appendices 4, 5 and 6. The effects of treatments on the seed number per primary and secondary head at each stage of development are illustrated in Figures 5, 6, 7, 8 and 9.

Temperature stresses of +3^{o}C and -2^{o}C applied at any stage of seed development (from 1 day pre-anthesis to 9 days post-anthesis) had no substantial effects on maximum seed number within the primary head (37 to 56 seeds/head) or secondary head (9 to 42 seeds/head) categories at each harvest.

For these treatments, maximum seed number per primary head was determined 5 to 10 days after anthesis and remained relatively constant thereafter through to the final harvest, 45 days after anthesis.

In secondary heads where temperature stresses of +3^{o}C or -2^{o}C had been applied at from one day pre-anthesis up to 3 days post-anthesis (Figures 5, 6 and 7) compared to later stages (Figures 8 and 9) the attainment of maximum seed number was delayed a further 5 days and was reached 15 days after anthesis, in the former treatments.

A temperature stress of -4^{o}C applied one day before or 1 day after anthesis caused a highly significant reduction in total seed numbers per plant and also in both primary and secondary heads (less than 12 seeds per head) compared to all other temperature stress treatments (Figures 5 and 6). However, when the same temperature stress (-4^{o}C) was applied to plants 6 to 9 days after anthesis seed number per primary and secondary head increased to normal levels giving results comparable with those obtained in +3^{o}C and -2^{o}C treatments (appendices 5 and 6). A -4^{o}C stress applied 3 days after anthesis caused a small reduction in seed numbers in primary heads and a highly significant reduction in seed numbers in secondary heads. Less than 8 seeds/head were present compared to other temperature stress treatments applied at this stage of plant growth. This meant there was an approximately 50% reduction in seed number per plant when a

FIGURE 5: Effects of temperature applied at pre-anthesis (S1) on seed number per primary and per secondary head at different intervals after anthesis.

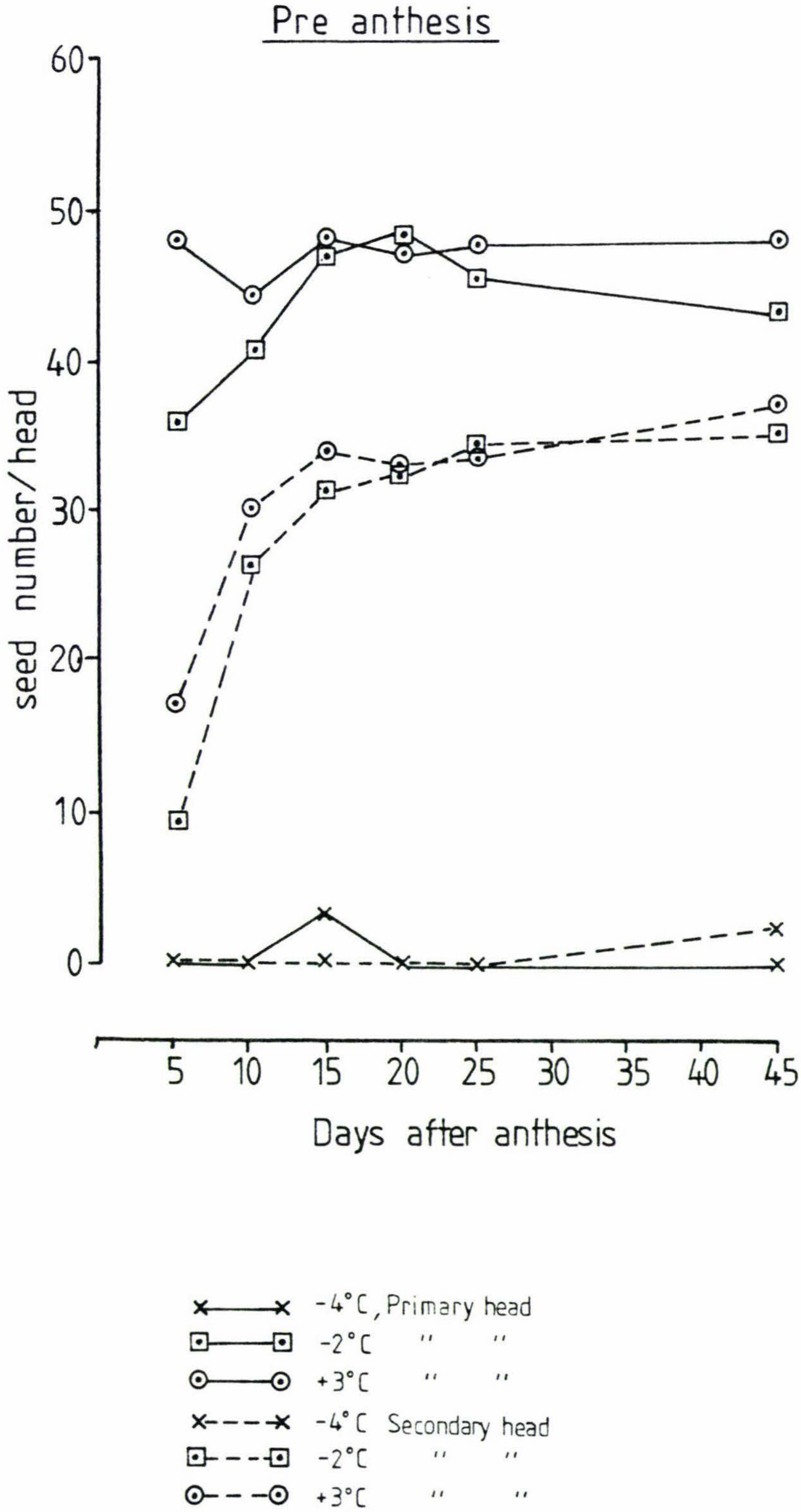


FIGURE 6: Effects of temperature stress applied at anthesis (S2) on seed number per primary and per secondary head at different intervals after anthesis.

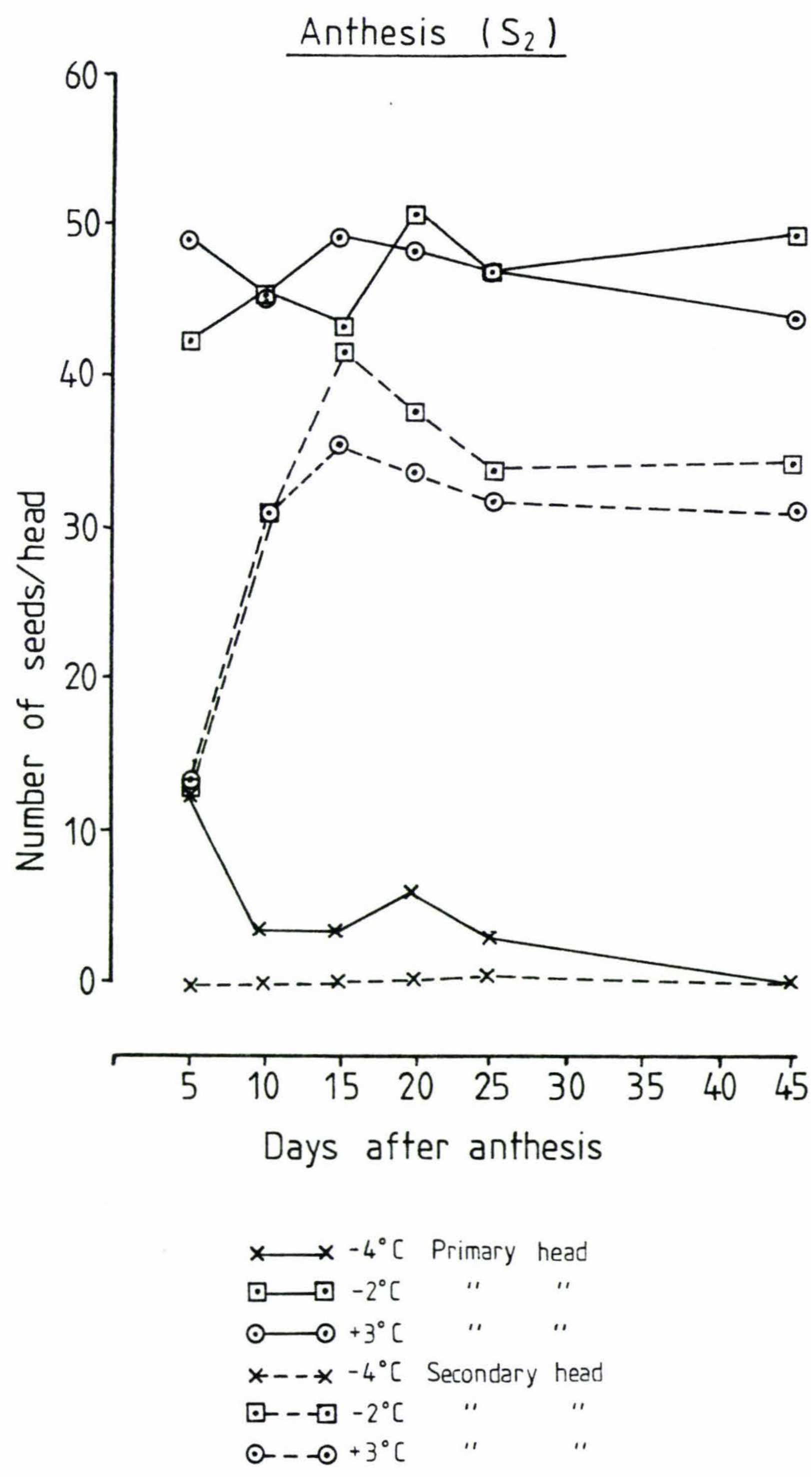


FIGURE 7: Effects of temperature stress applied at 3 days after anthesis (S3) on seed number per primary and per secondary head at different intervals after anthesis.

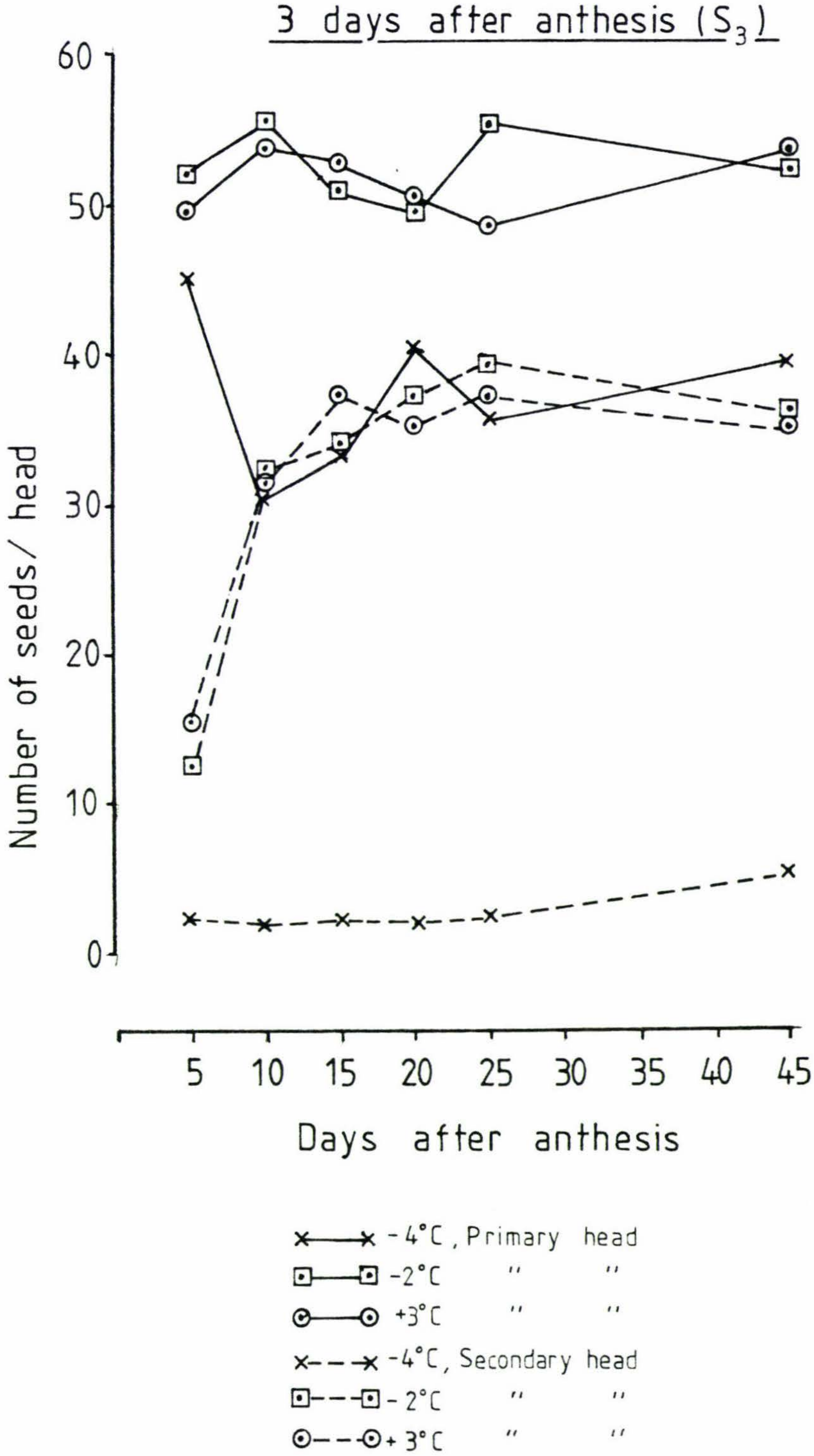
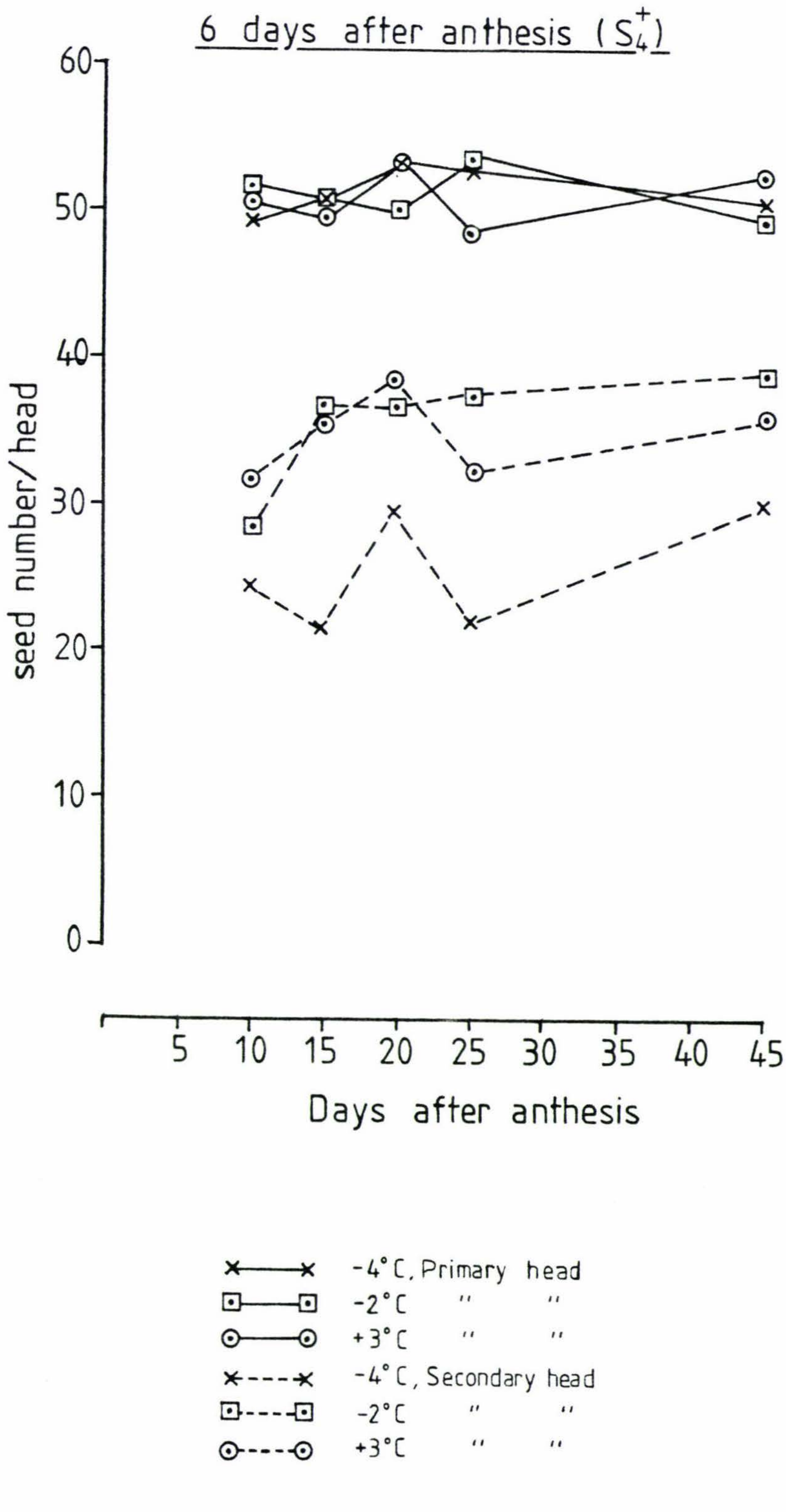
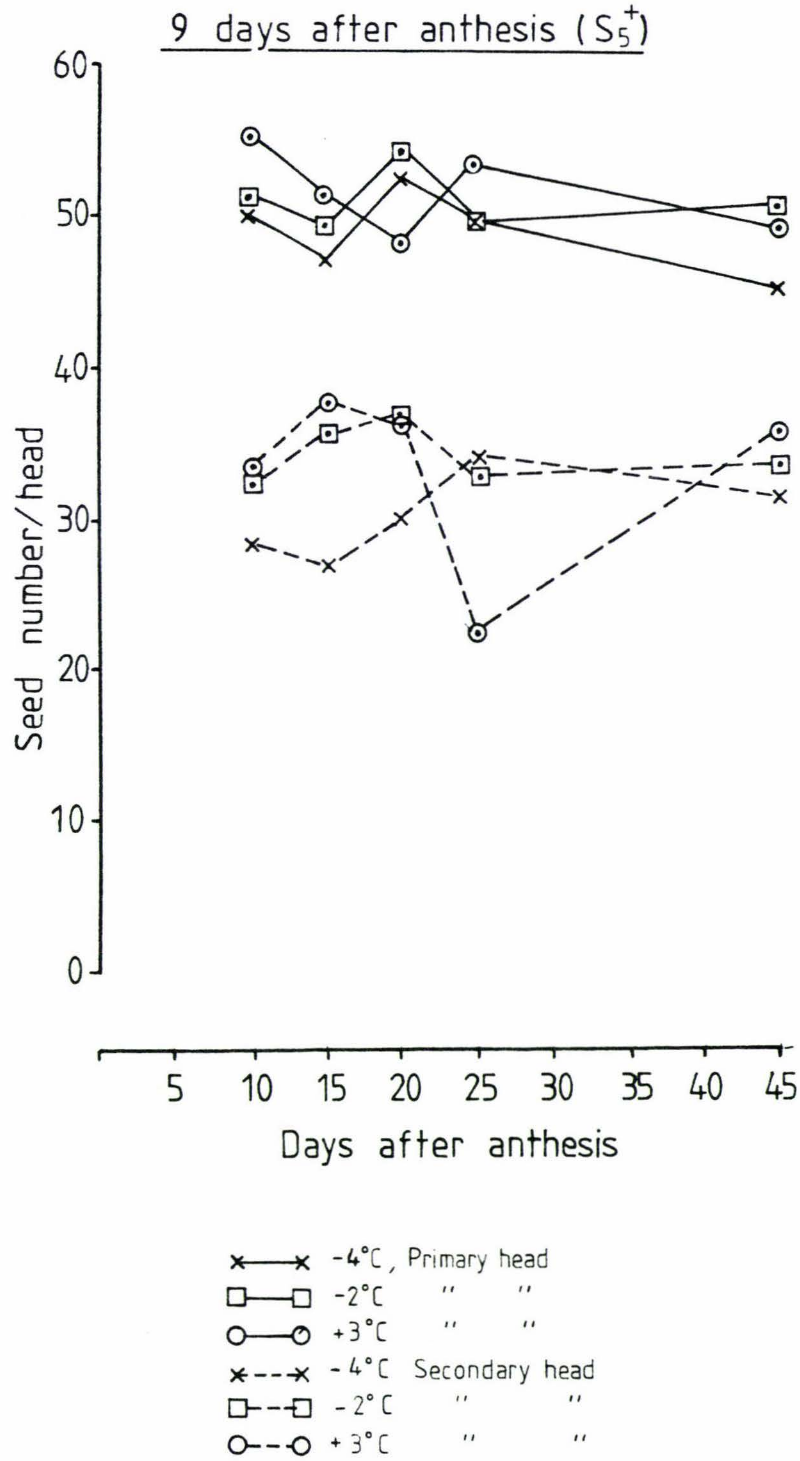


FIGURE 8: Effects of temperature stress applied at 6 days after anthesis (S4) on seed number per primary and per secondary head at different intervals after anthesis.



\+ Plants had not reached this stage of development at first harvest (5 days after anthesis)

FIGURE 9: Effects of temperature stress applied at 9 days after anthesis (S5) on seed number per primary and per secondary head at different intervals after anthesis.



+ Plants had not reached this stage of development at first harvest (5 days after anthesis)

$-4^{o}C$ temperature stress treatment was applied 3 days after anthesis compared to that present when $+3^{o}C$ or $-2^{o}C$ stresses were applied at each stage of development.

4.1.3 Seed Germination

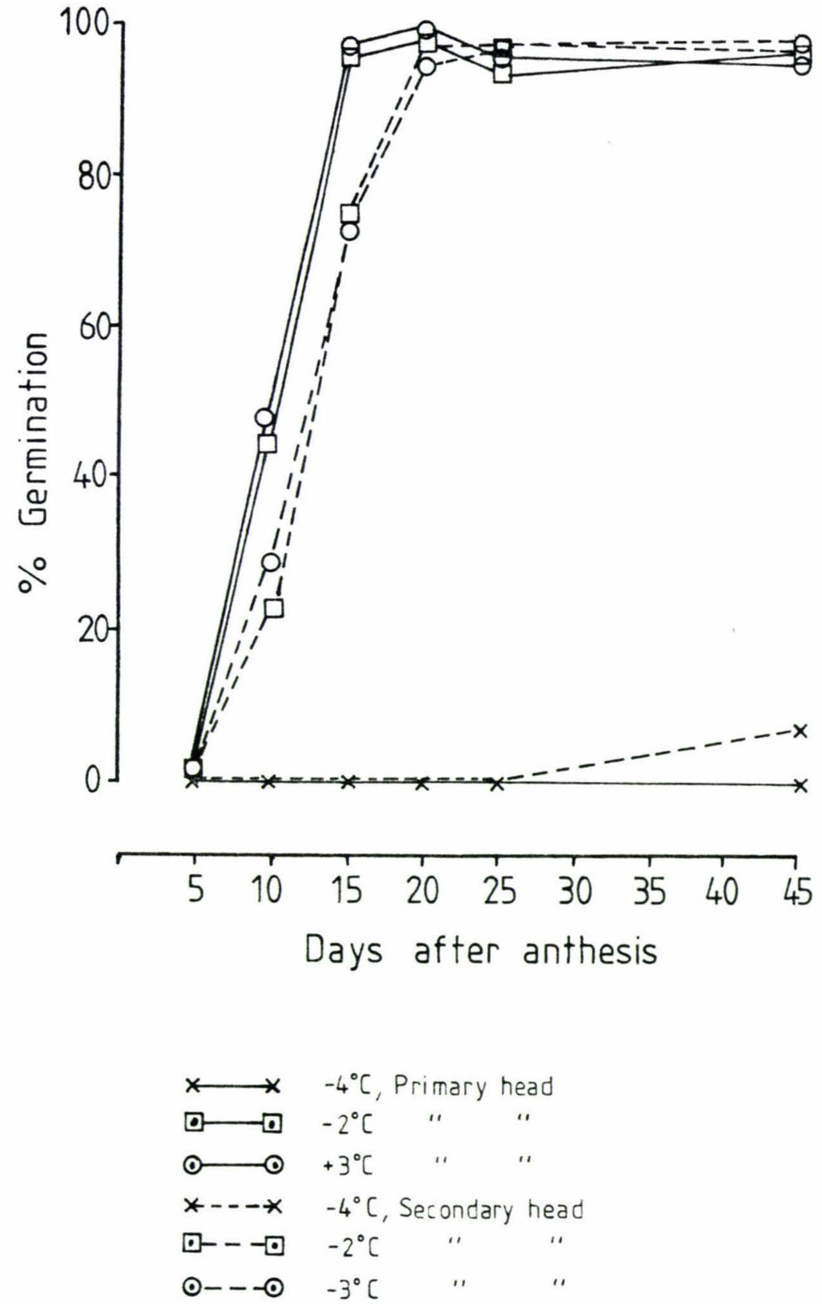
Results of temperature stress meaned over all 5 stages of plant development on the germination of seeds derived from primary and secondary heads are given in Figure 10. Raw data treatment means together with comparisons of means using Duncan's Multiple Range Test are presented in Appendices 7 and 8.

The effects of temperature stress on seed germination were similar in many ways to those on 100 seed weight. All plants treated at any stage of development with a $+3^{o}C$ or $-2^{o}C$ temperature stress produced maximum germination (88-99%) at the final harvest, 45 days after anthesis (Appendices 7 and 8).

In all treatments which received a $+3^{o}C$ and $-2^{o}C$ temperature stress viability began to develop 10 days after anthesis and on primary heads more than 90% seed germinability was attained 15 days after anthesis. However, on secondary heads 90% germinability was not obtained until 20 days after anthesis.

The most severe temperature stress of $-4^{o}C$ produced extremely high seed mortality. Normal germination was zero for all seed produced on primary heads. Plates 13 and 14 show dead seeds and abnormal seedlings produced at 5 and 10 days after anthesis. Plate 15 shows typical dead seeds harvested 20 days after anthesis produced in the $-4^{o}C$ temperature stress treatment applied 6 days after anthesis. The typical high normal germination percentages produced in all $+3^{o}C$ and $-2^{o}C$ treatments harvested from 20 up to 45 days after anthesis are shown in Plate 16.

FIGURE 10: Effects of temperature treatments (averaged over all stages of development) on percentage germination of seeds from primary and secondary heads at different intervals after anthesis.



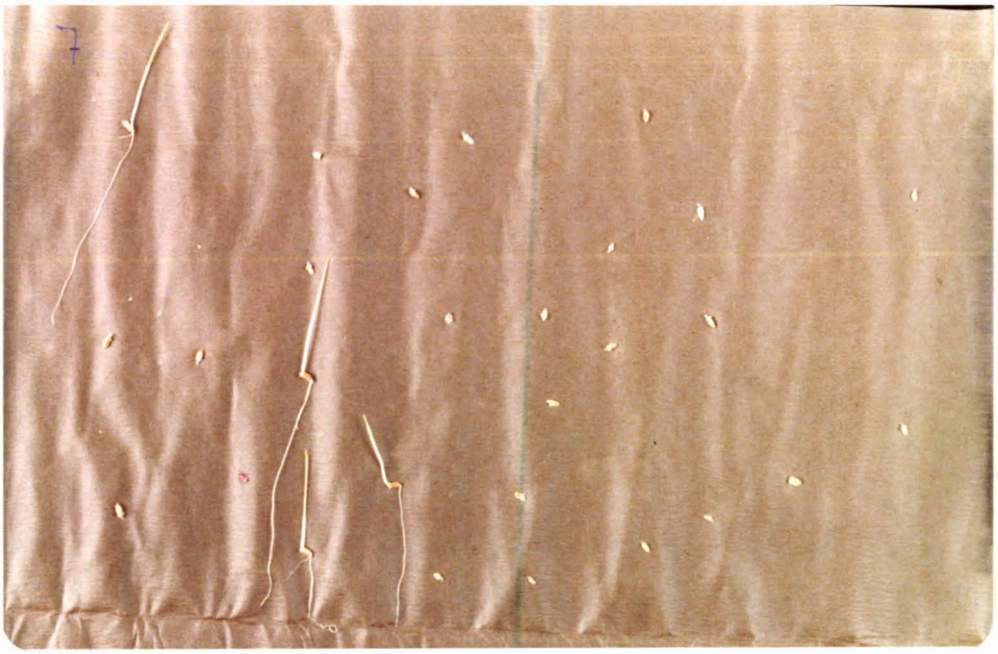


PLATE 13: Typical Dead and abnormal seedlings produced from seeds germinated 5 days after anthesis in all treatments.

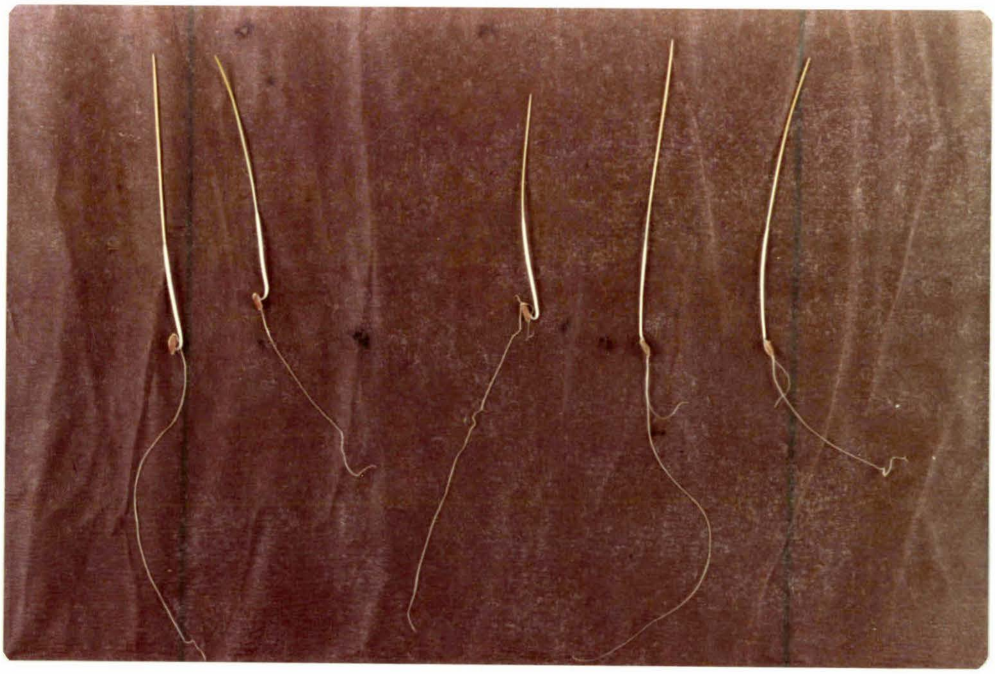


PLATE 14: Typical abnormal seedlings possessing only one seminal root which occurred 5 and 10 days after anthesis. Presumably the radicle was not fully formed and differentiated atthese early harvests.

PLATE 15: This photograph shows the dead seeds typical of those produced in all -4^{o}C temperature stress treatments in which some seed was produced. Note the shrunken, poorly developed dead seeds after 8 days on a germination roll at 20^{o}C.

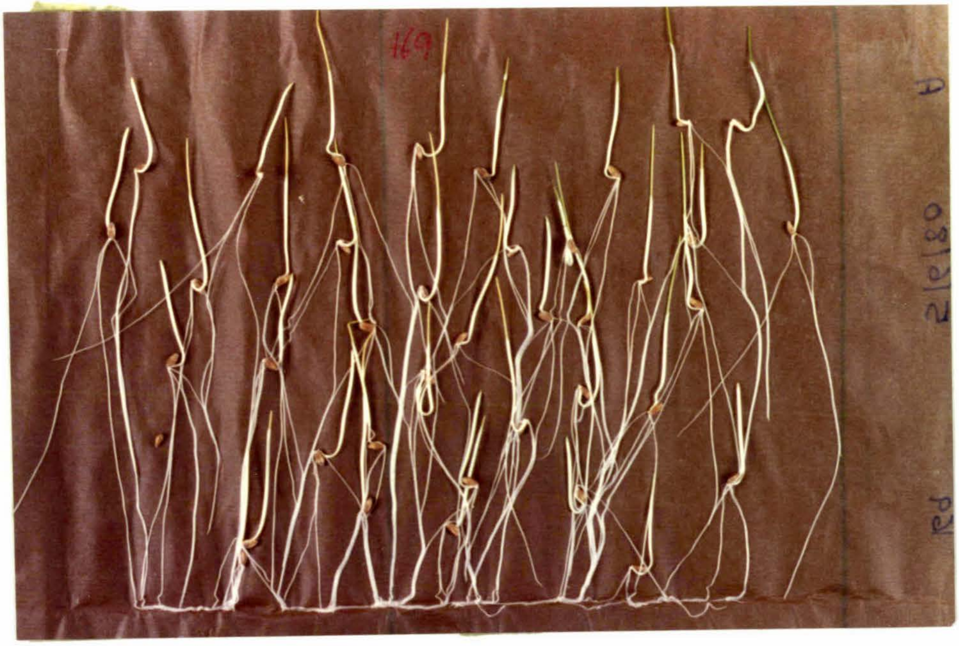


PLATE 16: This photograph illustrates the high germination percentage recorded in all +3^{o}C and -2^{o}C treatments from seeds harvested from 20 to 45 days after anthesis.

Seed on secondary heads which had been stressed at -4^{o}C generally showed zero germination irrespective of the stage of plant growth at which low temperature stress had been applied. The one exeption occurred in plants which had been stressed at the pre-anthesis stage. In this case 33% germination was obtained from seed removed from secondary heads at the final harvest (Appendix 8).

4.1.4 Seed Yield per Plant

The effects of temperature stress at different stages of development on seed yield per plant are shown in Figure 11. Raw data and treatment means are given in Appendices 9, 10, 11 and 12.

From Figure 11 it is evident that the effects of the various treatments on seed yield per plant followed the same pattern as described for 100 grain weight (see Section 4.1.1).

A temperature stress of -4^{o}C applied at any stage of plant development (from 1 day before anthesis up to 9 days after anthesis) caused a highly significant reduction in seed yield per plant compared to the +3^{o}C and -2^{o}C treatments at all harvests (Appendix 9). At the final harvest, 45 days after anthesis, 0 to 0.3 gm of seed per plant was present in -4^{o}C treatments compared to yields of 8.3 to 12.2 grams/plant produced in the +3^{o}C and -2^{o}C treatments.

Seed yield per plant is the sum of yield per primary head and yield of all secondary heads on the plant. The contribution of the seeds derived from primary heads to total yield per plant is shown in Figure 12.

At the first harvest (5 days after anthesis) seeds from the primary head contributed 55 to 66% of total seed yield per plant in all temperature treatments (when temperature treatments were averaged over all stages of development). However at the final harvest, (45 days after anthesis) seeds

FIGURE 11: Seed yield in grams per plant at different intervals after anthesis at different treatments.

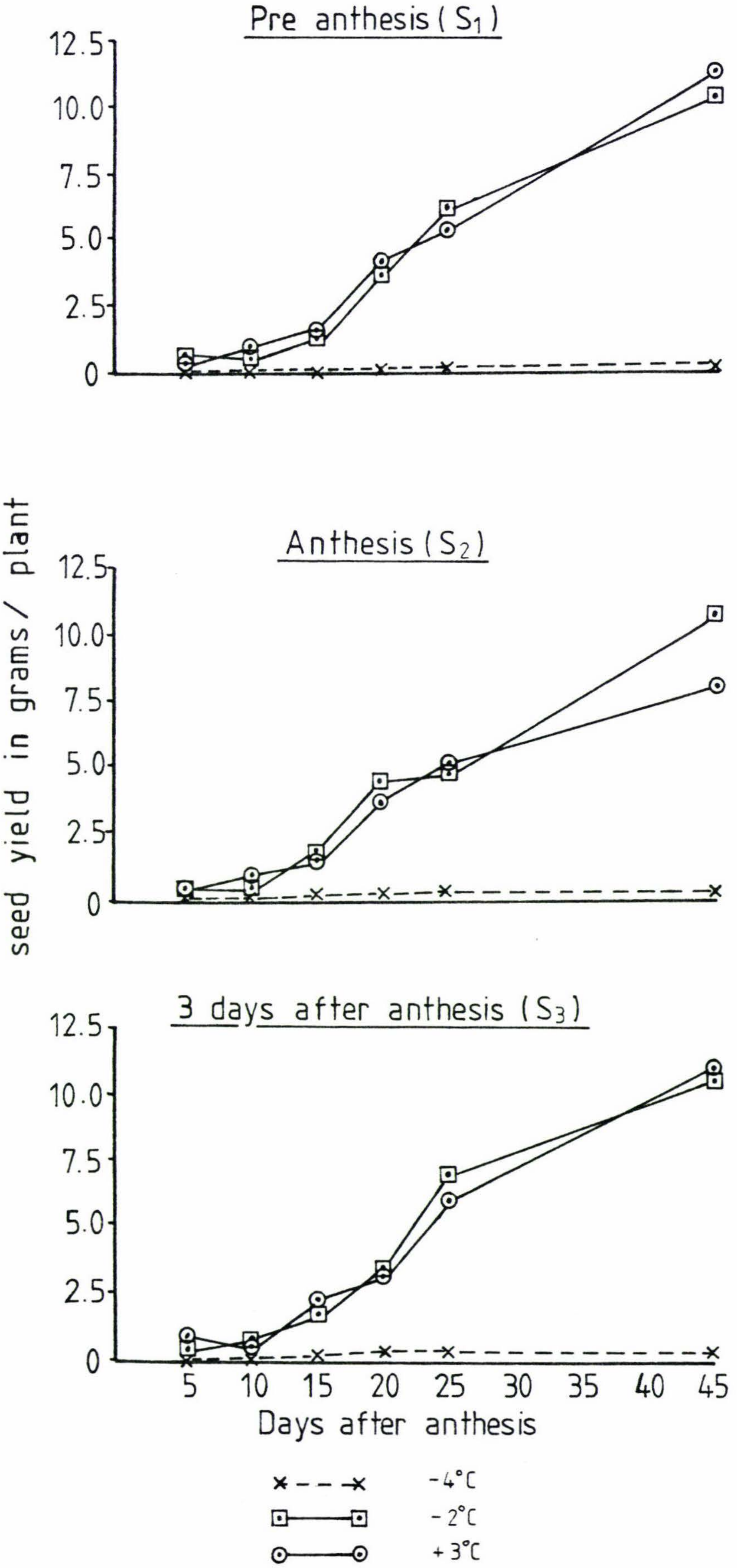
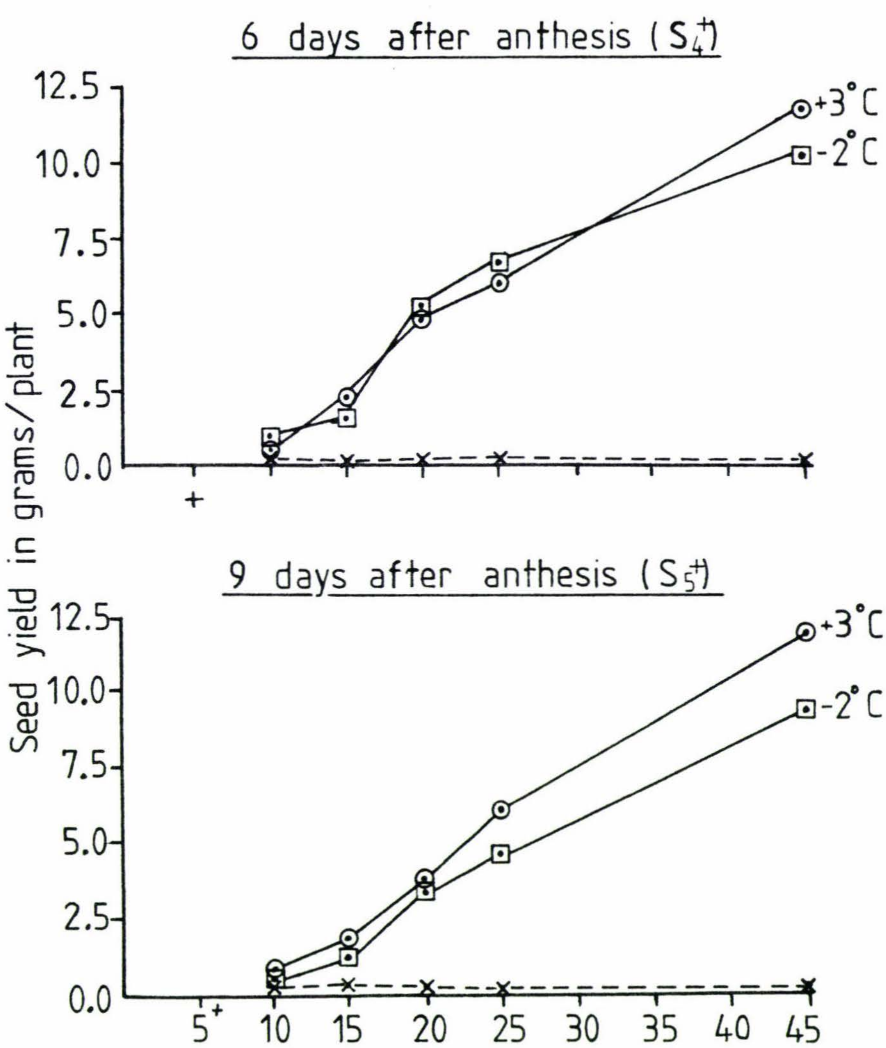
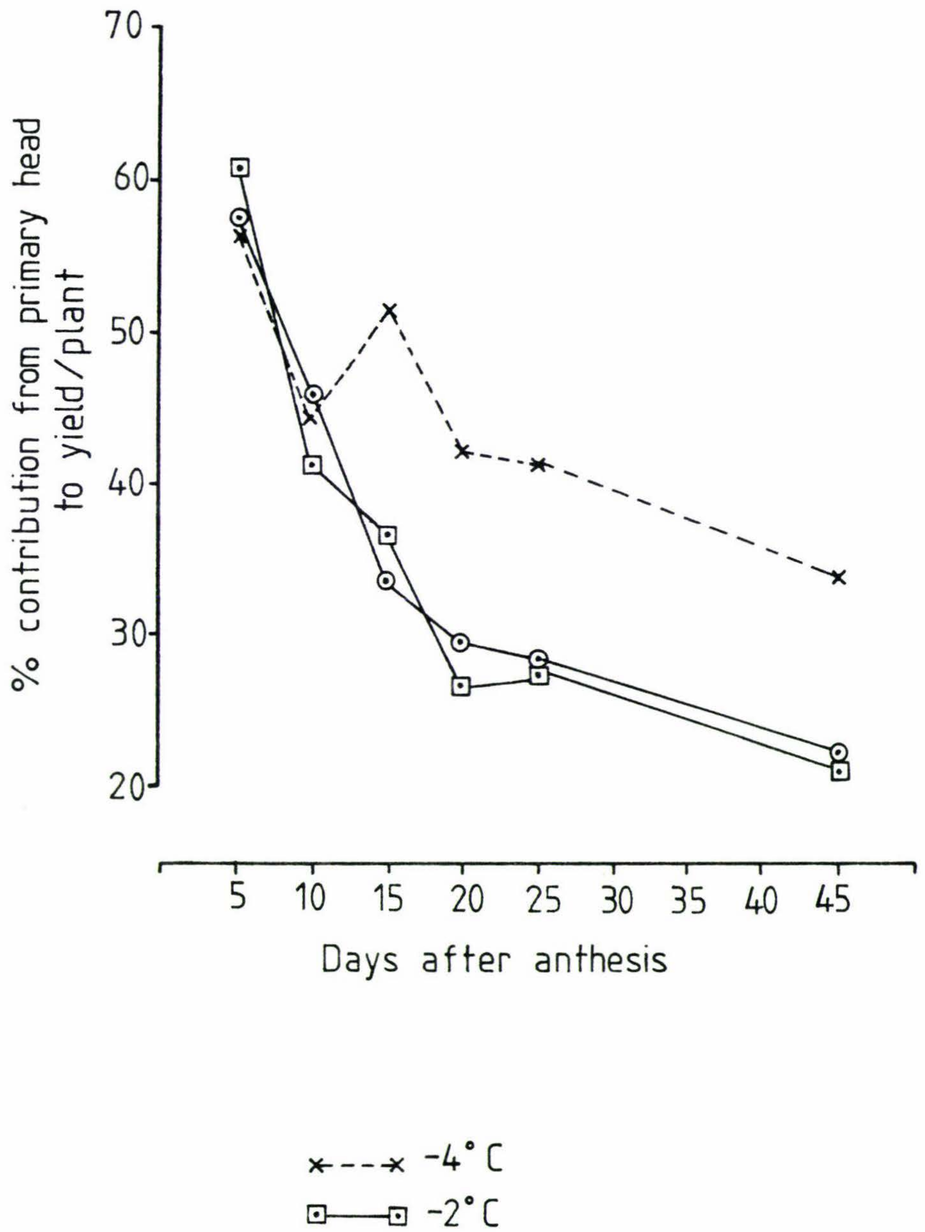


FIGURE 11: CONTINUED



+ Plants had not reached this stage of development at first harvest (5 days after anthesis)

FIGURE 12: Percentage contribution of primary head seeds to yield per plant at different intervals after anthesis. Results for each temperature stress treatments are meaned over all stages of development.



from the primary head in the $-4^{o}C$ treatment contributed significantly more to total yield per plant (34.4%) compared to that observed in the $-2^{o}C$ and $+3^{o}C$ treatments (22.7 and 21.1% respectively, Figure 12 and Appendix 12).

4.1.5 Viable Seed Yield

Raw data, treatment means together with statistical comparisons of means for all data on viable seed yield are presented in Appendices 13, 14, 15 and 16.

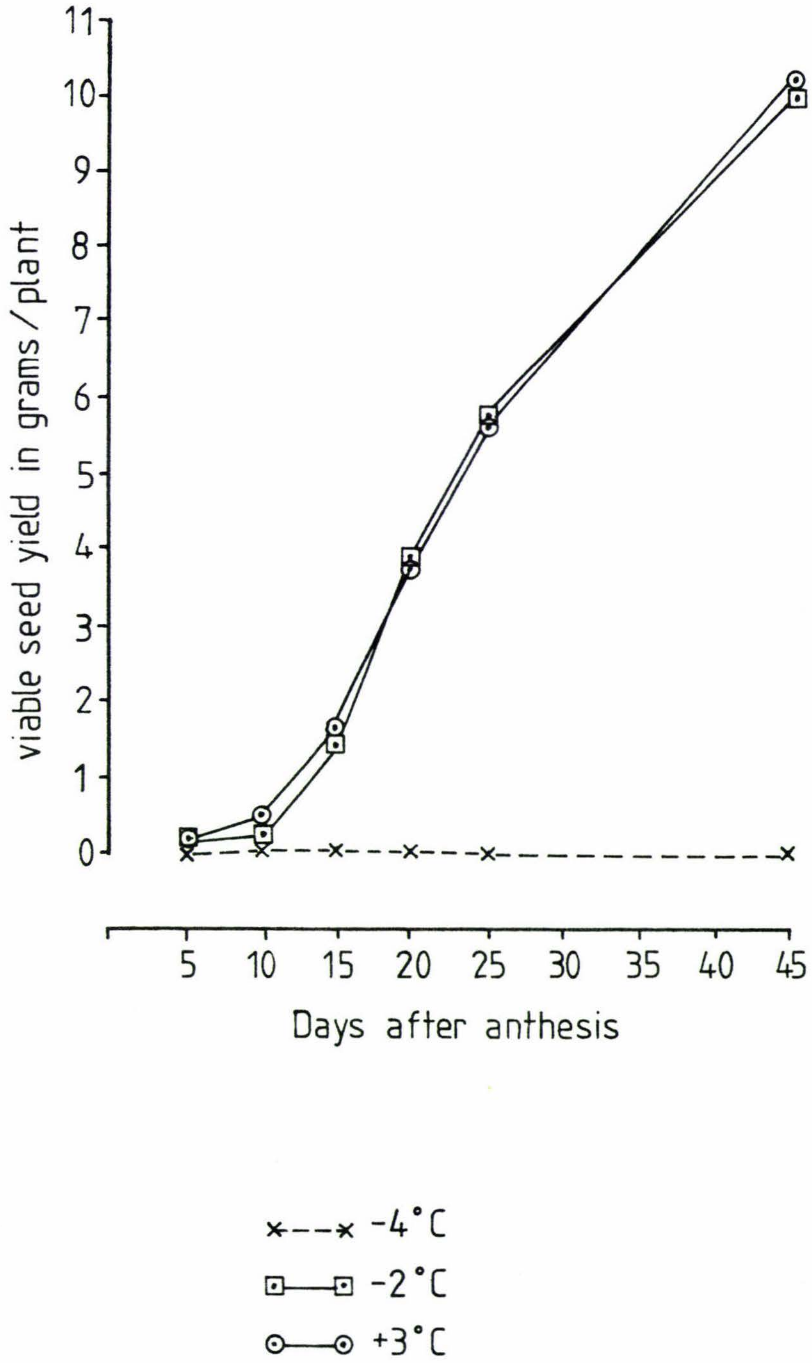
Treatment effects on viable seed yield per plant and per head (Figure 13) are essentially the same as those on yield per plant and 100 seed weight (Sections 4.1.4 and 4.1.1, respectively). However, viable seed yield was zero (because germination was zero) at all harvests from $-4^{o}C$ treatments, except when the $-4^{o}C$ stress was applied at the pre-anthesis stage of plant development in secondary heads (Appendix 15). Viable seed yield per primary head was greater than that from an average secondary head in all the $+3^{o}C$ and $-2^{o}C$ treatments. In these treatments the primary head contributed 19 to 27% to total viable seed yield for plants.

4.2 Percent Fertility; Percent Sterility; and Ovule Development

Yield and components of yield have been described in Section 4.1. Certain treatments produced high seed yields (i.e. $+3^{o}C$ and $-2^{o}C$ treatments) whilst other treatments produced low to zero yields (all $-4^{o}C$ treatments). It is now proposed to describe the fertility and sterility patterns which occur in seed heads in different treatments and in different positions within the seed heads in an attempt to explain the yield differences observed.

In order to obtain high seed yields per plant large numbers of ovules per head must develop into normal seeds after successful pollination and fertilisation. If fertilisation

FIGURE 13: Viable seed yield in grams per plant at different intervals after anthesis. Results for each temperature stress treatment are meaned over all stages of development.



is not successful and/or subsequent ovule development does not occur, the ovules become shrivelled and shrunken. In the former case, the ovule is termed 'fertile' while in the latter case it is termed 'sterile'. Hence, the number of fertile and sterile ovules per head is associated with yield per plant and 'ovule development' is an important process which may be affected by genotype and environment the outcome of which determines whether an ovule becomes 'fertile' or 'sterile'. Ovule development was also assessed by the physical appearance differences between ovule types (as described in the Methods Section 3.3.1) and their occurrence and anatomical structure as observed in microtome sections during the development stages from pre to post-fertilisation and early seed development. The results for each of the variables are presented below.

4.2.1 Percent Fertility and Percent Sterility

Ovules were defined as 'fertile' when the seed had 'set'. Such 'fertile ovules' were identified by the elongated cylindrical shape, typical of a normal caryopsis and defined as category 'C'. Thus, the percentage of 'C' type ovules per head is referred to as '<u>Percentage fertility</u>'.

Two types of sterile ovules were assessed. Firstly, in cases of unsuccessful fertilisation and seed 'set' the sterile ovules became shrivelled, shrunken and dead. These types of ovules were defined as 'D'. Secondly, it is a characteristic feature of the wheat spike that one or two terminal florets in each spikelet and several basal spikelets are usually sterile due to lack of male or female structures or both, and/or supressed floret development. The sterile ovules from these incompletely developed florets were defined as 'R' or rudimentary. The percentage sterility was calculated in two ways, firstly as <u>relative sterility</u>, (i.e. 'D + R'/total number of ovules x 100) and secondly as a <u>sterility index</u> (D/total number of ovules x 100).

(a) Percent Fertility

Raw data, treatment means and analyses of differences between means in percent fertility per primary and secondary head for different treatments at all harvests are presented in Appendices 17 and 18. Treatment effects on percent fertility are also illustrated in Figures 14 and 15. Treatment effects on percent fertility are similar in many ways to those of seed number per head and per plant previously described. Both these indices comprise 'C' type ovules only.

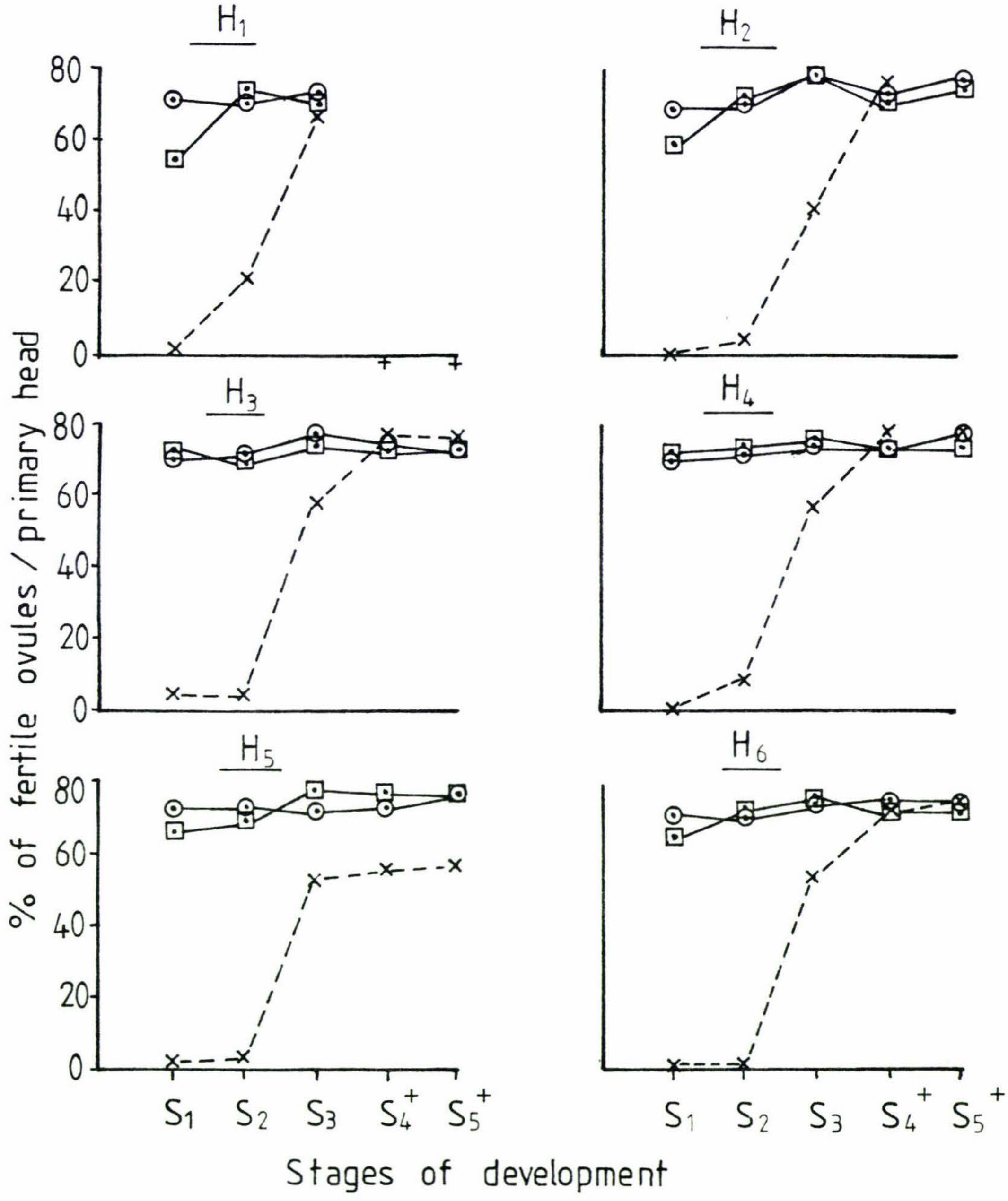
A temperature stress of -4^oC compared to stresses of $+3^oC$ and -2^oC caused a highly significant reduction in the percentage fertility of heads at all harvests when plants were stressed at the pre-anthesis stage of development (Appendices 17 and 18). The percentage of fertile ovules when a temperature stress of -4^oC was applied at pre-anthesis or at anthesis was only 0 to 5% at any harvest (Figure 14, 15 and Appendices 17 and 18).

However, when the temperature stress of -4^oC was applied 3 days after anthesis, the percentage of fertile ovules present was approximately 50% and 10% in primary and secondary heads respectively. In the later stages, 6 and 9 days after anthesis, percentage fertility per head in all temperature treatments was not reduced and remained near the maximum level recorded in this experiment (approximately 70-80%) (Figures 14 and 15).

Temperature stresses of $+3^oC$ and -2^oC applied at all stages of plant development had little effect on the percent fertility which remained at 70-80% (Figures 14, 15 and Appendices 17 and 18).

There was also a small difference between percentage ovule fertility in primary compared to secondary seed heads. The maximum percent fertility in primary heads was approximately 80%, compared with not more than 70% in

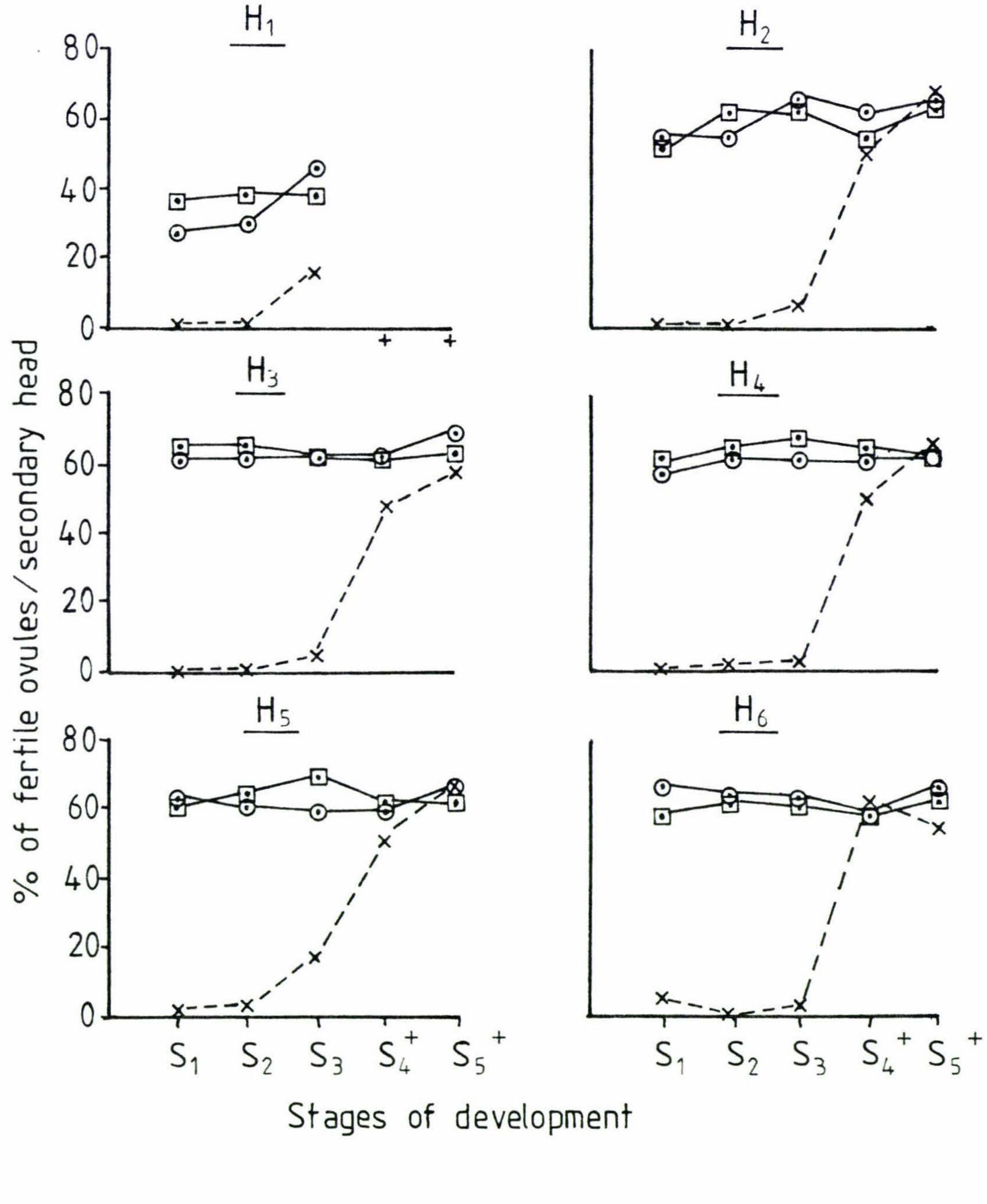
FIGURE 14: Percent fertility per primary head at all harvests when stress temperatures were applied at different stages of development.



H_1	harvest	5	days	after	anthesis	x---x -4°C	S_1 Pre anthesis
H_2	"	10	"	"	"	⊡—⊡ -2°C	S_2 Anthesis
H_3	"	15	"	"	"	⊙—⊙ +3°C	S_3 3 days after anthesis
H_4	"	20	"	"	"		S_4 6 " " "
H_5	"	25	"	"	"		S_5 9 " " "
H_6	"	45	"	"	"		

+ Plants had not reached this stage of development at first harvest (5 days after anthesis).

FIGURE 15: Percent fertility per secondary head at all harvests when stress temperatures were applied at different stages of development.



H_1 harvest 5 days after anthesis
H_2 " 10 " " "
H_3 " 15 " " "
H_4 " 20 " " "
H_5 " 25 " " "
H_6 " 45 " " "

x--x −4°C
⊡—⊡ −2°C
⊙—⊙ +3°C

S_1 Pre anthesis
S_2 Anthesis
S_3 3 days after anthesis
S_4^+ 6 " " "
S_5^+ 9 " " "

\+ Plants had not reached this stage of development at first harvest.

secondary heads (Figure 14 and 15).

(b) Percent Sterility

Ovules that had not developed into normal caryopses ('C' type ovules) were classified as 'sterile' and these ovules were either 'D' (shrunken, shrivelled and dead ovules) or 'R' (rudimentary ovules consisting of incomplete floral structures), and percent sterility was measured as follows.

(i) Percent Relative Sterility, and Sterility Index

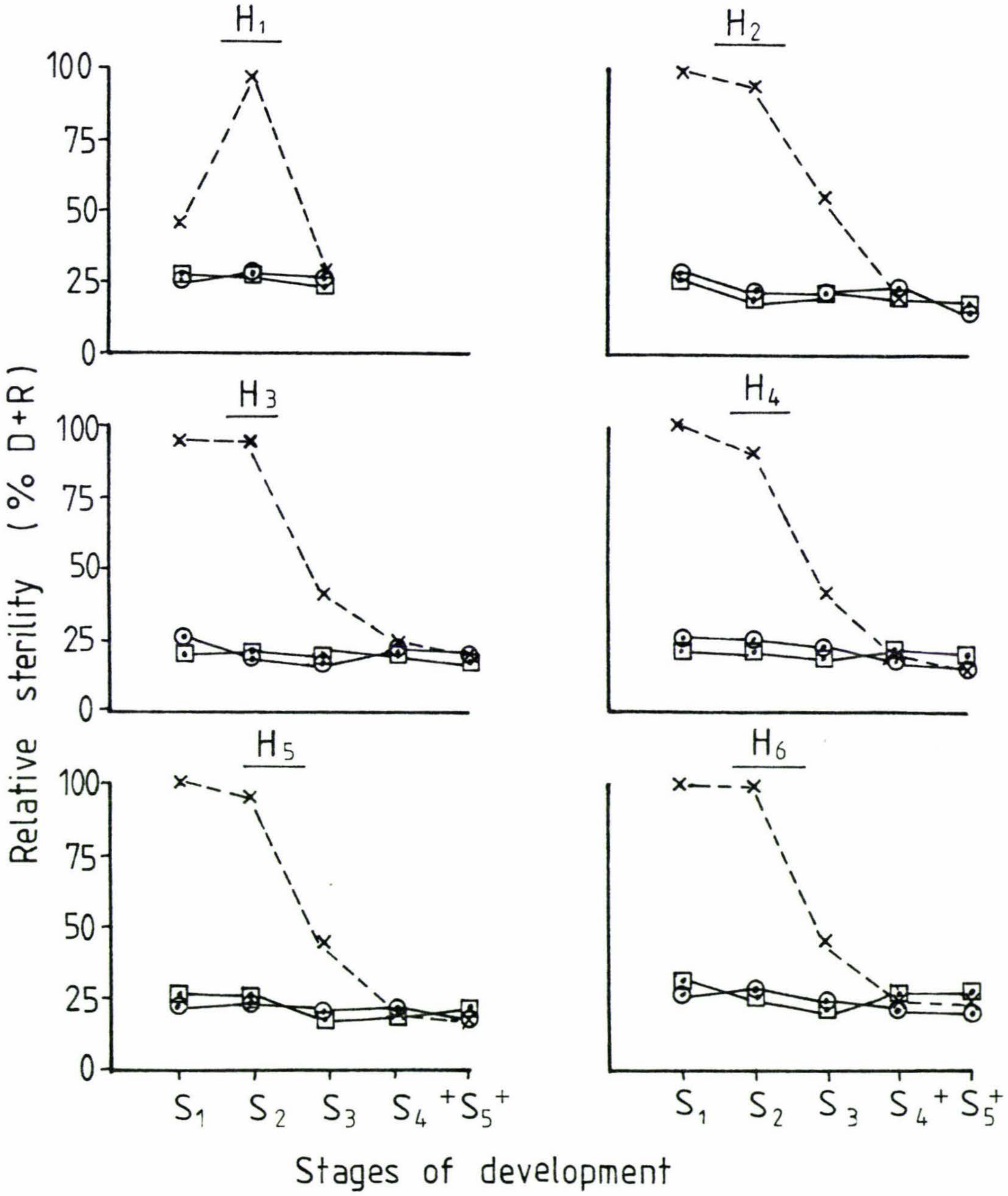
The effects of temperature stress applied at different stages of plant development on percent relative sterility (i.e. D + R/total ovule number x 100) at each harvest in primary and secondary heads are shown in Figures 16 and 17, respectively. Raw data, treatment means and details of significant differences between means for % D + R, % D and % R are given in Appendices 19 - 24.

In general percent total sterility results are the reciprocal of % fertility data, since at all harvests from 10 days after anthesis those floret sites which did not contain a normal 'C' caryopsis contained either 'D' or 'R' type ovules.

A temperature stress of $-4^{o}C$ applied at the pre-anthesis or anthesis stages of plant growth produced the greatest total sterility, from 90 to 100%. This consisted of 66 to 79% 'D' i.e. sterility index and 34 to 21% 'R' type ovules at all harvests taken 10 to 45 days after anthesis. At harvest 1, 5 days after anthesis many of the ovules examined were at a very early stage of development ('A' or 'B') and had not yet reached the 'C' or 'D' stage. The sequences of ovule development will be described in Section 4.4.4.

A temperature stress of $-4^{o}C$ applied 3 days after anthesis produced a relative sterility of approximately 50% in primary heads which was made up of approximately equal proportions of 'D' (sterility index) and 'R' ovules (Appendices 19-24). When this treatment was imposed

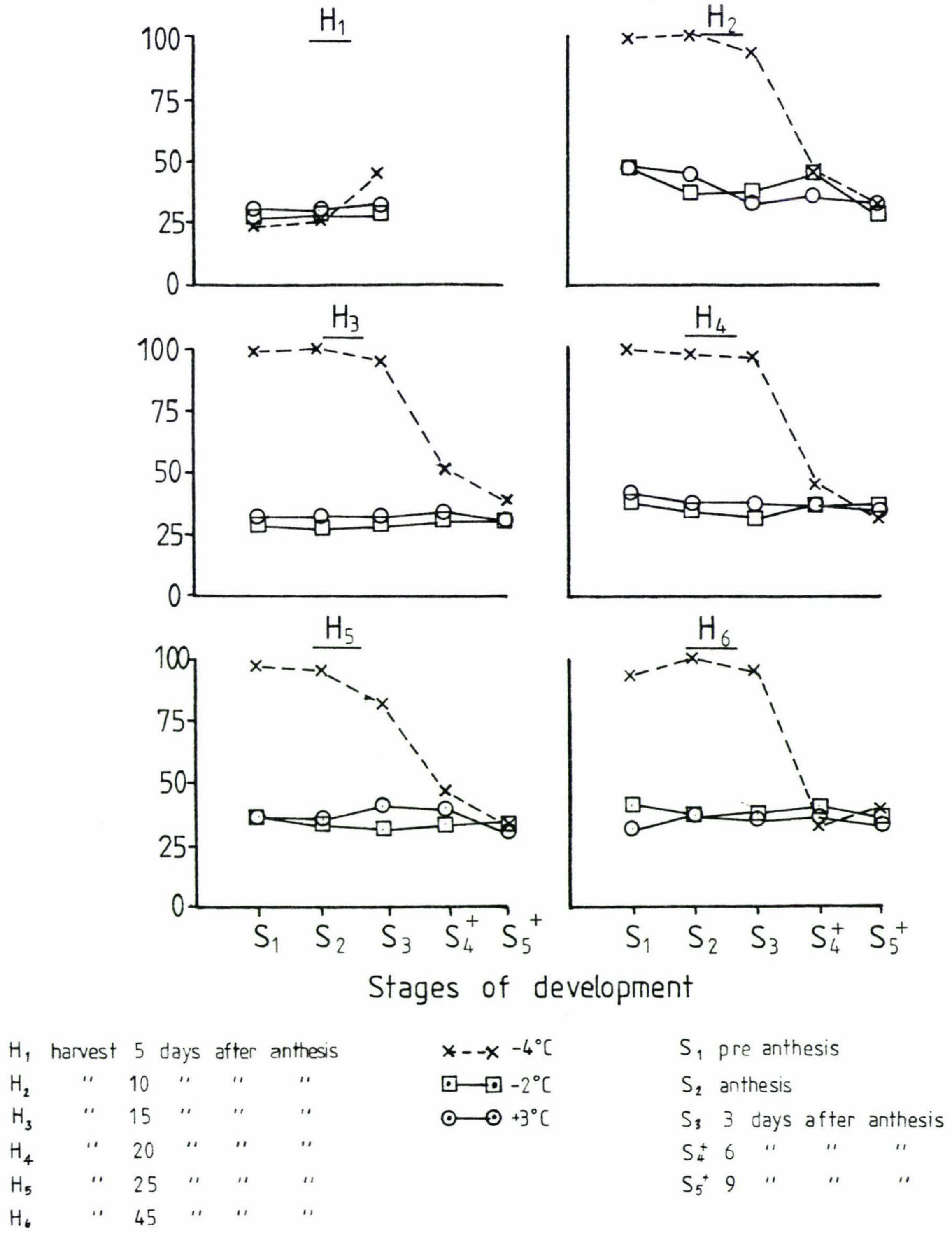
FIGURE 16: Relative sterility (%D + R Ovule Types) per primary head at all harvests when temperatures were applied at different stages of development.



H_1 harvest 5 days after anthesis	x---x −4°C	S_1 Pre anthesis
H_2 " 10 " " "	⊡—⊡ −2°C	S_2 Anthesis
H_3 " 15 " " "	⊙—⊙ +3°C	S_3 3 days after anthesis
H_4 " 20 " " "		S_4 6 " " "
H_5 " 25 " " "		S_5 9 " " "
H_6 " 45 " " "		

\+ Plants had not reached this stage of development at first harvest (5 days after anthesis).

FIGURE 17: Relative sterility (%'D + R' type ovules) per secondary head at all harvests when temperatures were applied at different stages of development.



+ Plants had not reached this stage of development at first harvest (5 days after anthesis).

on secondary heads relative sterility increased to approximately 80 to 90%, all of this increase being in the form of sterility index ('D' type ovules Appendices 20 and 22).

When a -4°C temperature stress was applied at 6 or 9 days after anthesis and +3°C or -2°C temperatures were applied at all stages of plant development percentage relative sterility was found to vary 17-29% for primary and 30-43% for secondary heads. The sterility index (%D) in these treatments was 0-14% for primary heads and 4 to 21% for secondary heads. The percentage of 'R' florets was 16-25% for primary and 26-33% for secondary heads.

(c) Percent Distribution of Fertile and Sterile Ovules Within a Seed Head

The wheat head was divided into 6 positions (as described in the Methods Section 3.3.3) to determine whether stress temperature and/or stage of plant development affected the incidence and distribution of fertile and/or sterile ovules within the head.

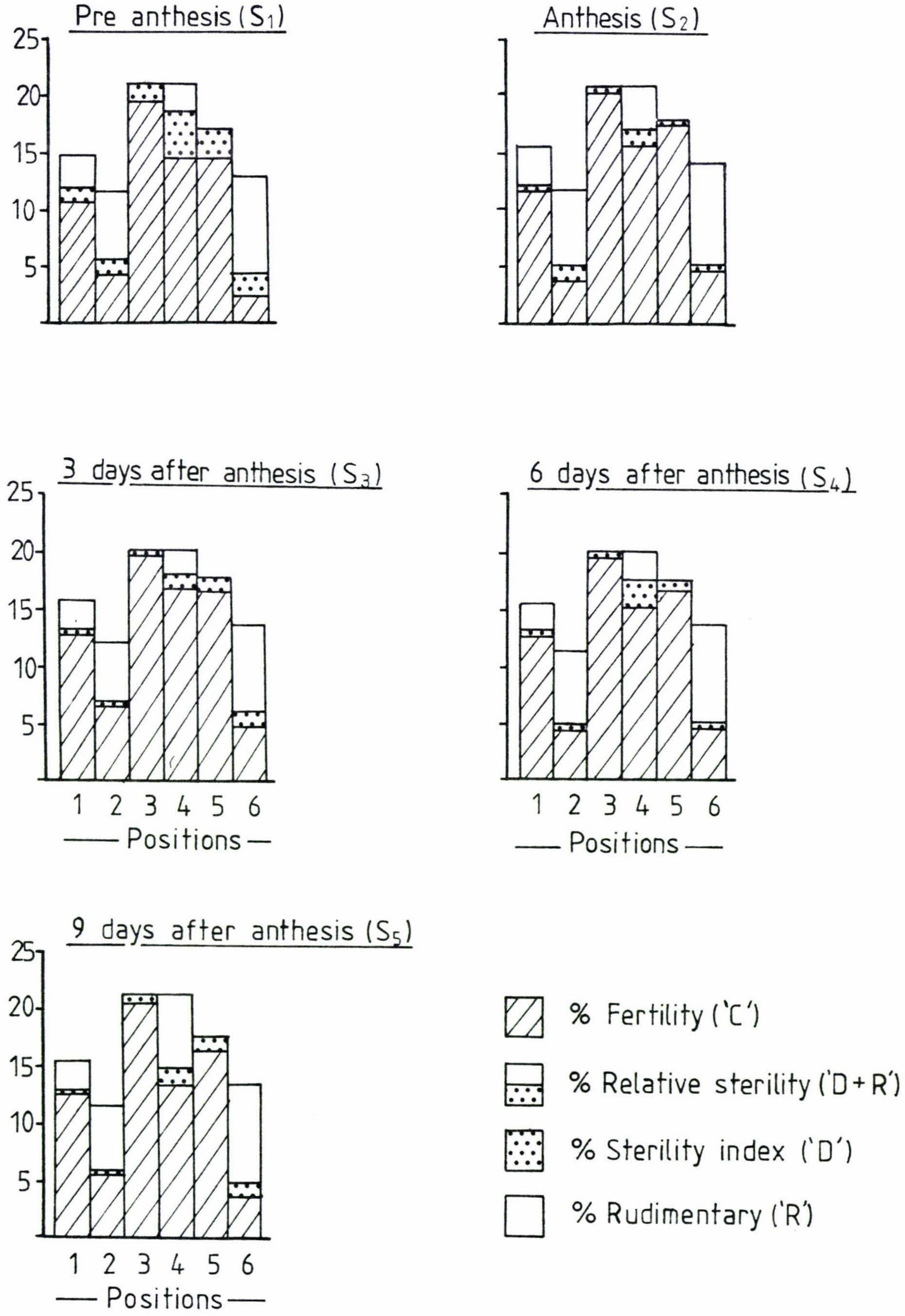
The results of % distribution of fertile ('C') and sterile ovules ('D + R') in the 6 positions within primary and secondary seed heads are presented in Appendices 25-28. A typical pattern of the distribution of fertile and sterile ovules in the six positions for a -2°C treatment is illustrated in Figure 18.

In general, the relative order of positions from highest (20%) to lowest (3%) fertility within the primary head was as follows: -

Position 3 (consisting of the 2 basal florets in all spikelets in the central 1/3 of the head)

Position 5 (consisting of the two basal florets in all spikelets in the top 1/3 of the head)

FIGURE 18: Percentage of fertility and sterility in 6 positions within the primary head at final harvest (45 days after anthesis) when a $-2^{o}C$ temperature stress was applied at different stages of development.



Position 4 (containing the third and fourth florets from the base in all spikelets in the centre 1/3 of the head)

Position 1 (containing the 2 basal florets in all spikelets and/or the tiny basal spikelets in the lower 1/3 of the head)

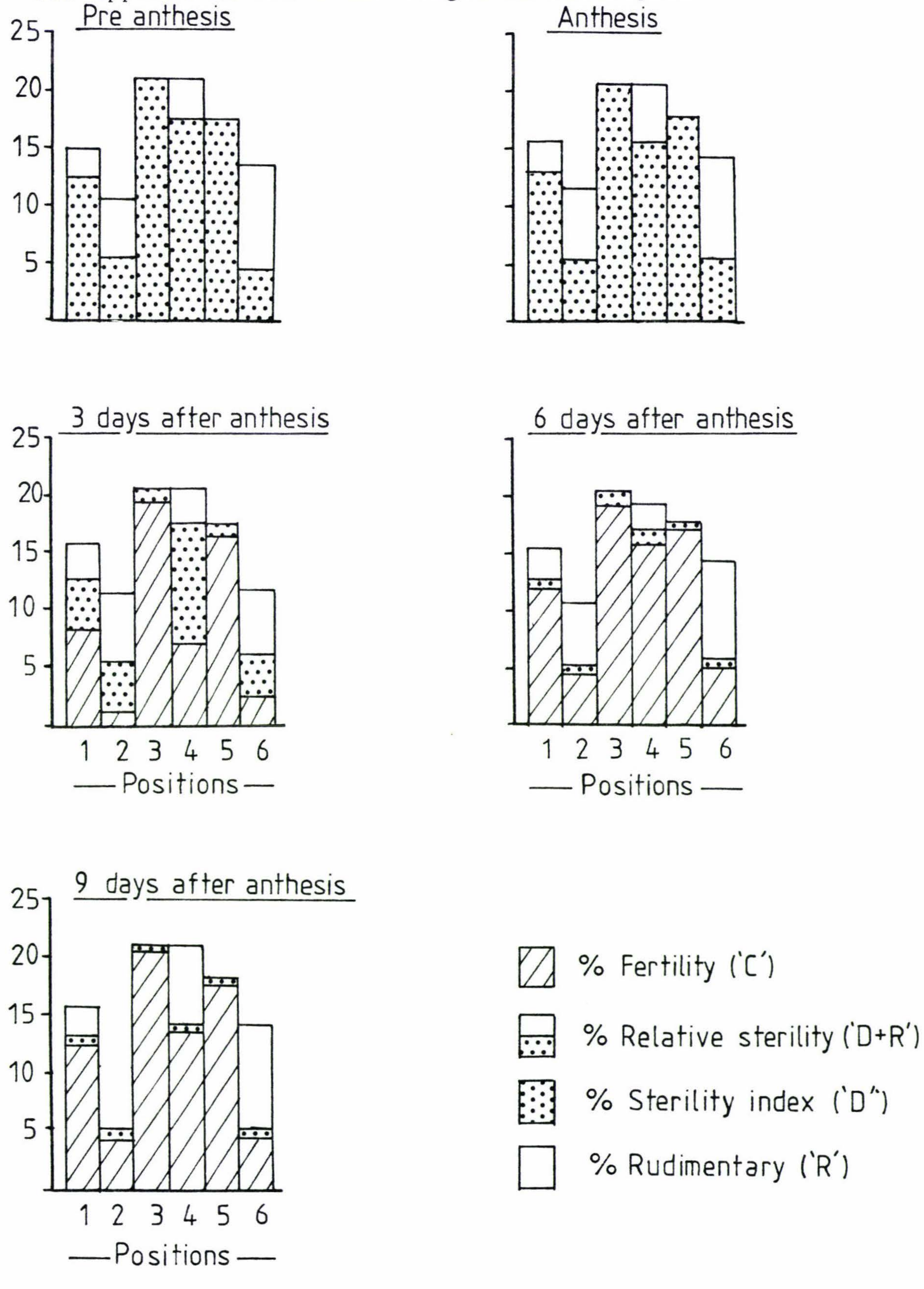
Position 2 (consisting of the third and fourth florets from the base in all spikelets in the bottom 1/3 of the head)

Position 6 (consisting of the third and fourth florets from the base in all spikelets in the upper 1/3 of the head)

This order of distribution of fertility within the spike remained the same for all treatments except for treatments which received a -4^{o}C stress at the pre-anthesis or anthesis stages of plant development (Figure 19). These latter treatments had absolute sterility in all positions at the final harvest, 45 days after anthesis. For these treatments at earlier harvests taken 10 to 25 days after anthesis low levels of fertility were recorded at positions 3 and 5 only (Appendices 25 and 26). The order of positions from highest to lowest fertility was similar in both primary and secondary heads. However, the total percentage of fertile ovules in each position was less in secondary compared to primary heads (Appendices 25 and 26). There was a trend for the top and central position containing two basal florets (positions 3 and 5) to be areas of higher potential fertility compared to positions containing distal florets (positions 2, 4 and 6, Figure 18 and 19).

The -4^{o}C temperature stress treatment produced more than 90% relative sterility when plants were stressed pre-anthesis. In this treatment the % of sterile ovules in all 6 positions was significantly higher than in all other treatments. The ranking of positions from highest to lowest sterility followed the order 3, 4, 5, 1, 6 and 2. For the rest of the treatments at all temperatures, positions 1, 3 and 5 (which included the two basal florets only) had a lower percent sterility compared to that of positions 2, 4 and 6

FIGURE 19: Percentage of fertility and sterility in 6 positions within the primary head at final harvest (45 days after anthesis) when a $-4^{o}C$ temperature stress was applied at different stages of development.



(which included terminal and 'R' type florets Appendices 27, 28, 31 and 32, Figures 18 and 19). However, if 'D' type ovules only are considered the occurrence of sterility in the 6 positions was negligible (less than 8%) in all +3^{o}C and -2^{o}C treatments and for -4^{o}C treatments stressed at 6 to 9 days after anthesis (Figures 18, 19 and Appendices 29 and 30).

4.2.2 Ovule Development

The effects of temperature stress applied at different stages of plant growth may affect the ovule development process and cause an ovule to become sterile or fertile. In order to gain some understanding of the mechanisms in operation during ovule development the effects of temperature stress applied at different stages of plant growth on the type and numbers of ovules present are described. Furthermore attempts were made to determine the morphological and the anatomical pathways of early seed development in both temperature stressed and unstressed wheat plants during the period from 0 to 10 days after anthesis.

In order to identify developmental phases, the ovules were grouped into 'A', 'B', 'C', 'D' and 'E' and 'R' categories. 'A' is an ovule prior to fertilisation, the ovule being of normal size with an active stigma (Plate 17a). At a later stage when the ovule had swollen and assumed a bilobed and conical shape with withered stigmas, the ovule was classified as 'B' (Plates 17b and 18). When this 'B' stage developed further the ovule became elongated in a cylindrical fashion, typical of a normal caryopsis, and was categorised as 'C' (Plate 17c). If ovule types 'A' or 'B' did not develop into 'C' and eventually the ovule died, then this ovule was classed as a 'D'. The 'D' type ovule was shrivelled, shrunken, misshapen and greatly reduced in size (Plate 17d). If the ovule had already been swollen and thereafter became misshapen or only partially swollen, distorted and conical in shape it was classified as 'E'.

PLATE 17: Ovule categories used to distinguish different stages of early grain development in wheat.

From left A - normal, unfertilised ovule before anthesis
B - conical shaped, swollen ovule 1-3 days after anthesis
C - cylindrical shaped, normal caryopsis
D - shrunken, shrivelled, sterile ovule

PLATE 18: Enlarged view of conical shaped, swollen 'B' type ovules in wheat.

Finally, ovules which had not developed perfectly and t floral structures were incomplete, were classified as ' (Plate 19). The tiny basal spikelets in which florets not developed were also classified as 'R' (Plate 19).

The occurence of these different categories of ovule ty per head in different treatments were analysed to exami the effects of temperature stress applied at different of plant growth on ovule development.

(i) Percentage of Ovule Types per Head

Raw data, treatment means and details of differences bet treatment means for the percentages of ovule types at th first and second harvest (5 and 10 days after anthesis) both primary and secondary heads are presented in Appenc 33 and 34. Figures 20, 21, 22 and 23 also show the numb of ovule types per head for different treatments 5 and 1 days after anthesis.

The composition of different ovule types per head from p stressed at $-4^{o}C$ pre-anthesis, at anthesis or 3 days aft anthesis was significantly different from the composotic ovule types in the remaining treatments. Heads from all $+3^{o}C$ and $-2^{o}C$ treatments exhibited a similar compositior ovule types (mainly 'C's'), whereas in the $-4^{o}C$ temperat stress treatments the percentage of ovule types changed according to the stage of plant development at which the stress had been applied. For example, a $-4^{o}C$ temperatu stress applied at 1 day before or 1 day after anthesis produced the maximum percentage of 'D' type ovules when plants were sampled 10 days after anthesis (Figures 22 a However, when a $-4^{o}C$ temperature stress was applied at 6 9 days after anthesis 'C' type ovules were the main type found (Figures 21 and 23).

'A' type ovules were found at harvest 1 only, 5 days aft anthesis (Figures 20 and 22). 'E' type ovules occurred low numbers in most treatments at 5 days after anthesis

PLATE 19: Top row: 'R' type rudimentary terminal wheat floret, lacking either male or female structures or both.

Bottom row: 'R' rudimentary basal spikelets.

FIGURE 20: The percentage of ovule types present per primary head at 5 days after anthesis.

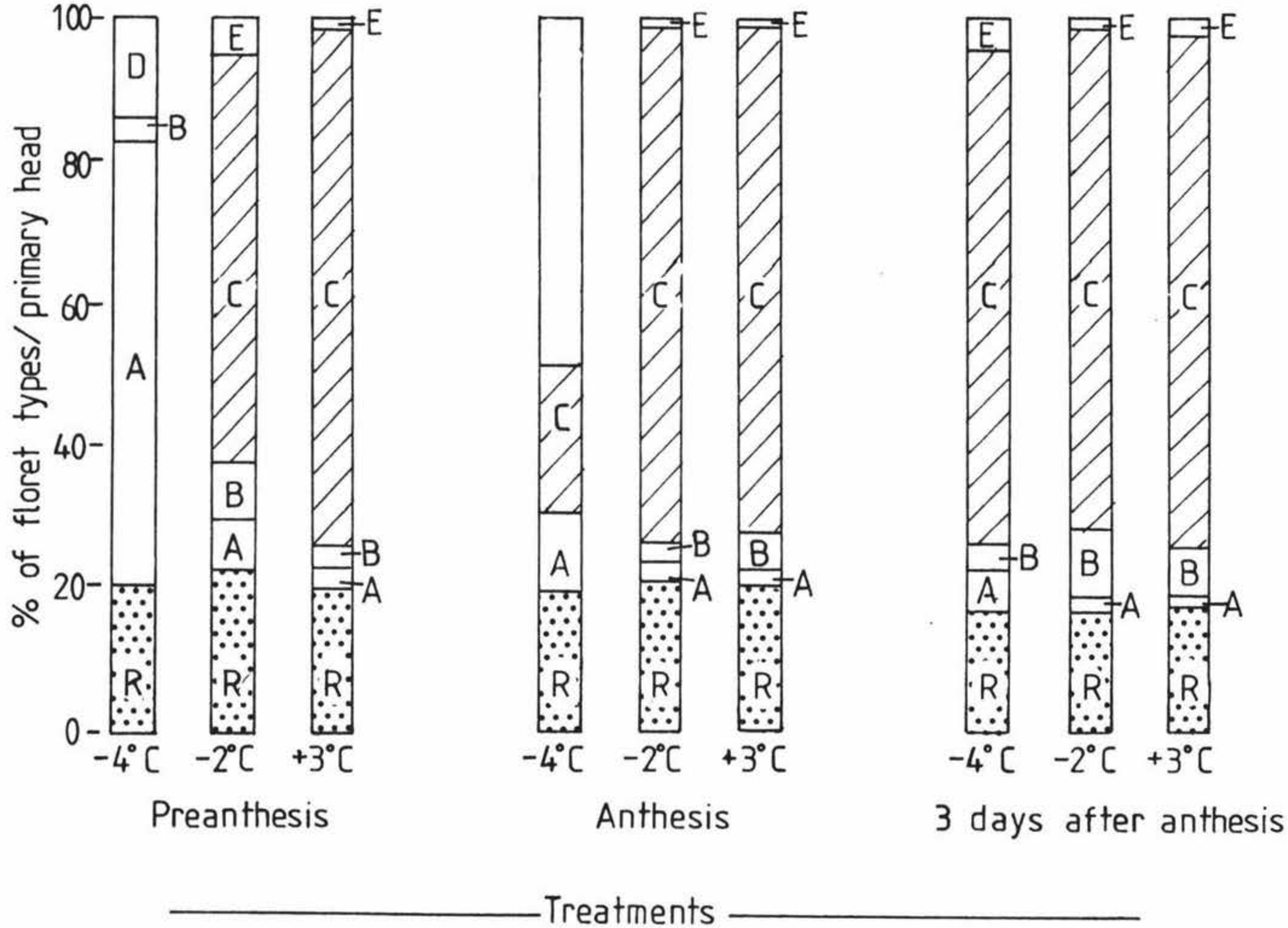


FIGURE 21: The percentage of ovule types present per primary head at 10 days after anthesis.

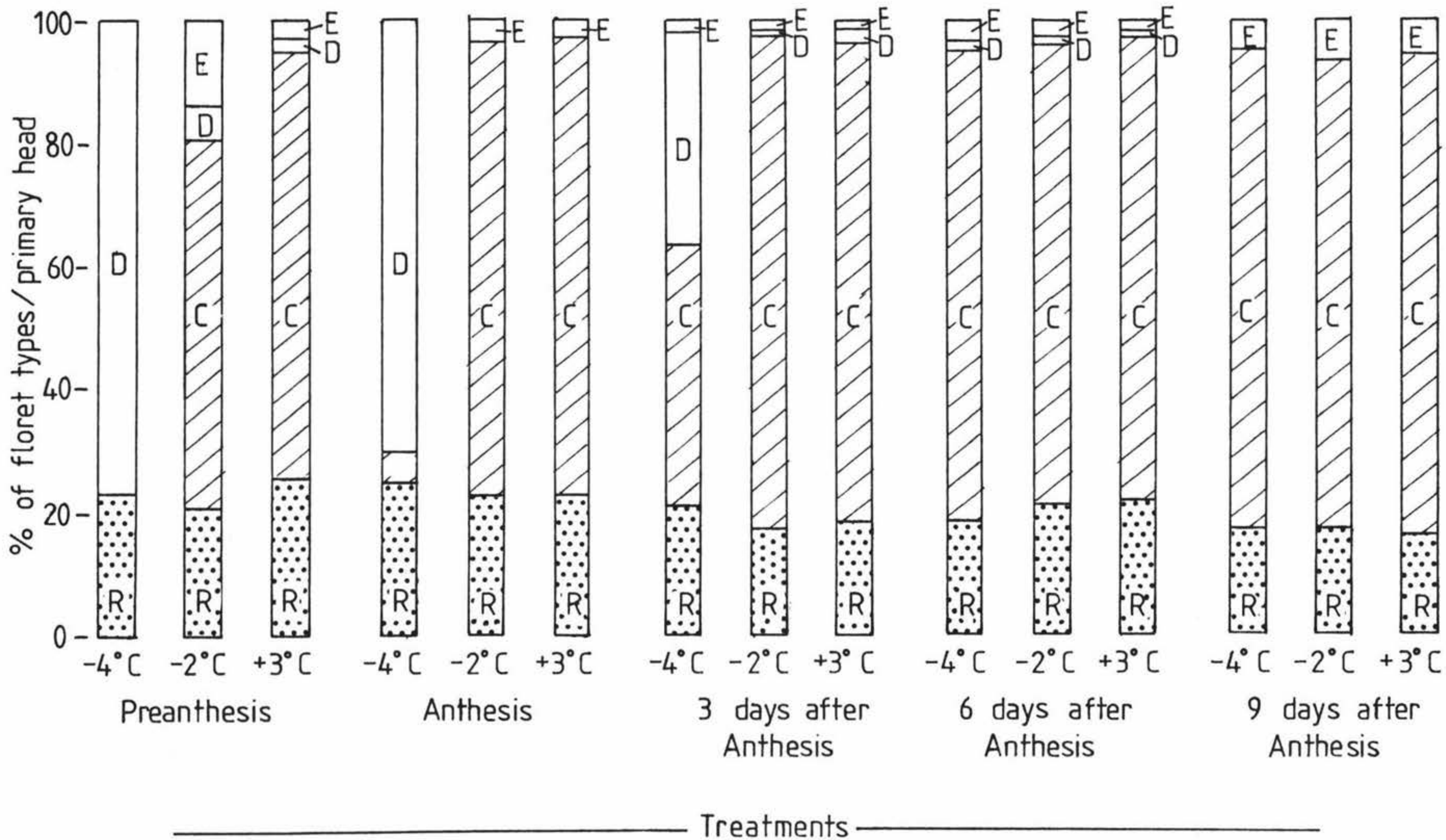


FIGURE 22: The percentage of ovule types present per secondary head at 5 days after anthesis.

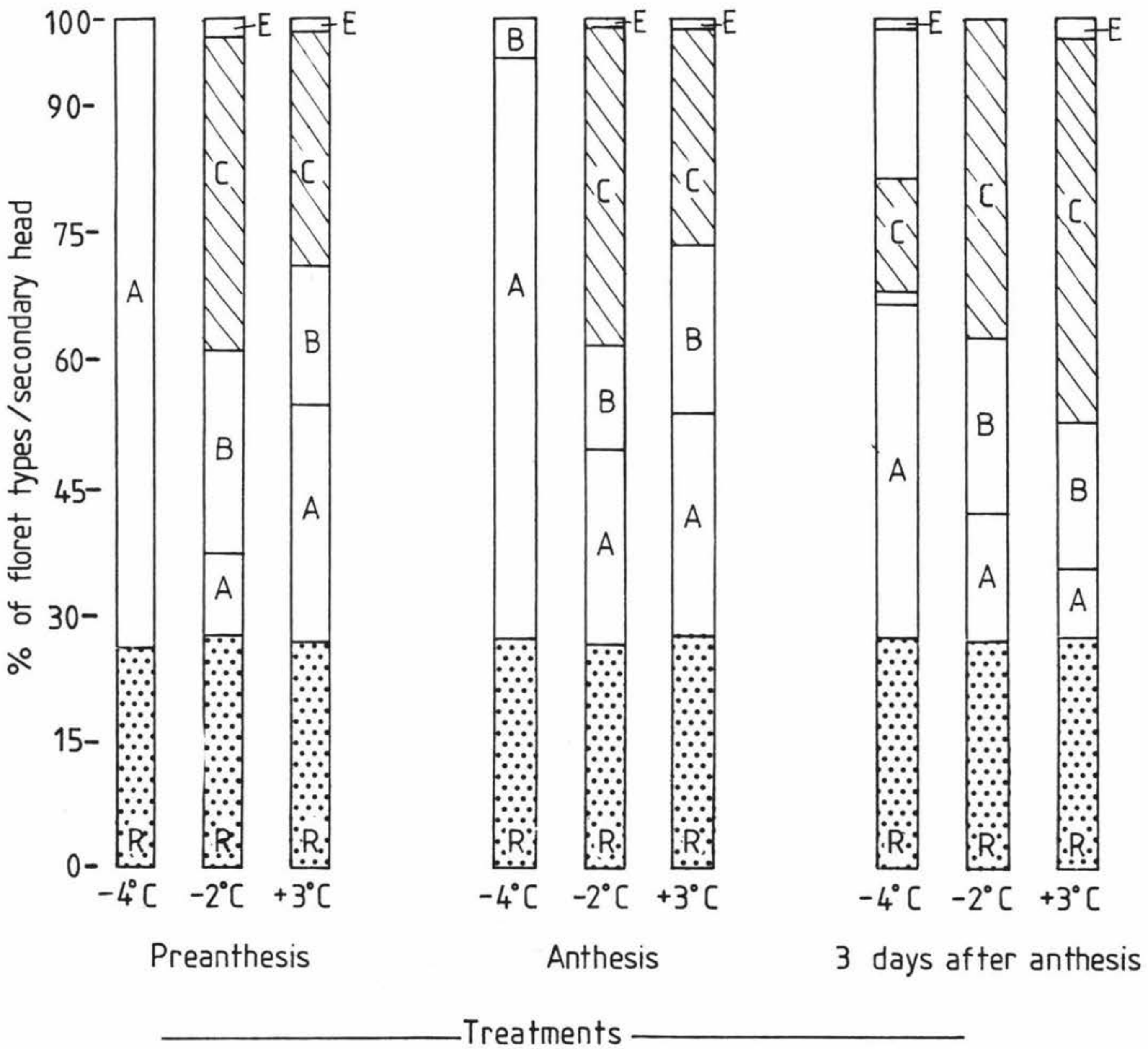
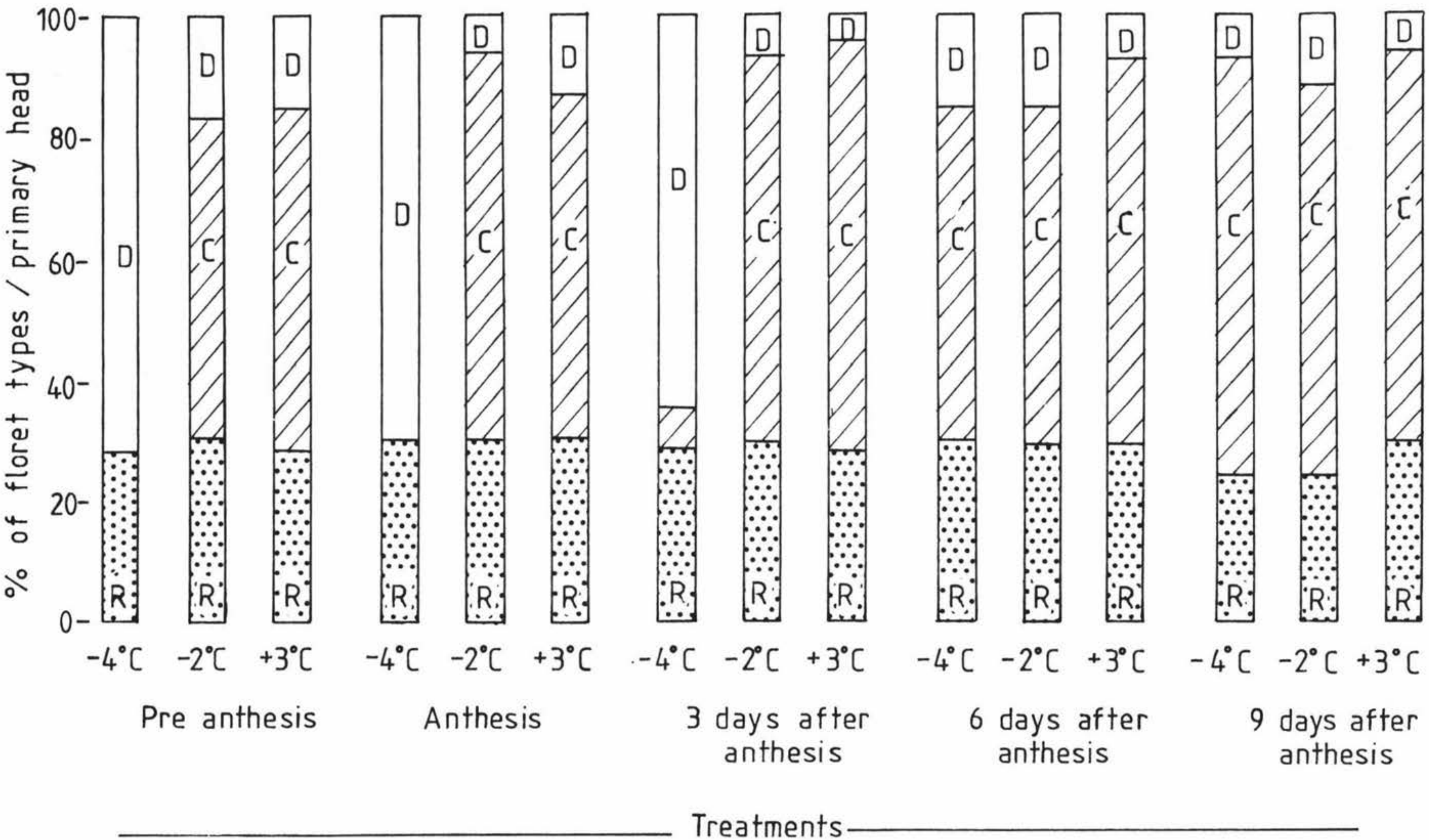


FIGURE 23: The percentage of ovule types present per secondary head at 10 days after anthesis.



and by 10 days after anthesis were not present (Appendices 33 and 34).

An important feature of ovule development in the $-2^{o}C$ temperature stress treatments was that a higher percentage of 'B' type of ovules occurred on secondary heads 5 days after anthesis when the temperature stress was applied at pre-anthesis, anthesis or 3 days after anthesis (Appendices 33 and 34). At later harvests 'B' type ovules were not present in any significant quantity (less than 4%) and presumably had mainly developed into 'C' (i.e. normal grains) in later harvests in all the $+3^{o}C$ and $-2^{o}C$ treatments. Ovules classed as rudimentary 'R' type ovules in general occurred in similar percentages 16-25% for primary and 26-33% for secondary heads in all treatments (Figures 20, 21, 22, 23 and Appendices 23 and 24).

(ii) Percentage Distribution of Different Types of Ovules within a Seedhead

The wheat seedhead was divided into 6 positions (Methods Section 3.3.3) to determine the percentage of different types of ovules present in different parts of the head. Raw data and treatment means for the % of 'A' and 'B' type ovules present in each position are given in Appendices 35 and 36. Percentages of 'C', 'D' and 'R' type ovules have been presented earlier in Appendices 25, 26, 29 and 30. 'A' type ovules only occurred at harvest 1 and the maximum percentages of A's occurred when a $-4^{o}C$ treatment was applied at 1 day before first anthesis. The percentage of A's ranged from a maximum of 15.7 to a minimum of 5.6% for positions 4 (florets 3 and 4 from the base in the centre 1/3 of the head) and 6 (florets 3 and 4 from the base in the top 1/3 of the head) respectively. At later harvests, from 10 to 45 days after anthesis, most of these positions were occupied by 'D' type ovules. It was also of interest that positions of highest potential fertility (3, 4, 5) had the greatest percentage of B type ovules in secondary heads. At later harvests these positions were usually filled with normal grains, i.e. 'C' type ovules.

Rudimentary ovules occurred in a similar distribution in all treatments (Appendixes 31 and 32). They occurred in the distal florets of spikelets (positions 2, 4 and 6) or in tiny, basal spikelets (position 1) and their distribution was similar at all harvests in all treatments.

(iii) Ovule Anatomy

Microtome sectioning was carried out in representative specimens of floret types A, B, C and D as described in Materials and Methods Section 3.3.7.

In a typical ovule type 'A', two large antipodal cells are found (Plate 20). Though a number of sections were cut the egg apparatus, synergids, or polar nuclei structures were not detected. This is possibly due to the occurence of these organs in different planes and because of problems in orientating ovules in the wax to cut them in the desired plane and the tearing of tissues. Few complete serial sections of whole ovules were obtained (Methods Section 3.3.7). The plane of sectioning determined the structures found.

Because of the difficulty experienced in obtaining sections of 'A' type ovules which showed all of the essential structures in wheat a mature embryo sac prior to fertilisation as depicted by Hoshikawa (1960) is shown in Plate 21.

In the ovule type 'B' collected from control plants an approximately 6-celled embryo was identified (Plate 22) while in 'B' ovules collected from $-2^{o}C$ treatments, no embryo sturctures were found in spite of many serial sections being cut and examined. Developing liquid endosperm was clearly identified in the 'B' ovules from control plants (Plate 23). Endosperm development was also identified in some of the other 'B' ovules collected from the treatment $-2^{o}C$.

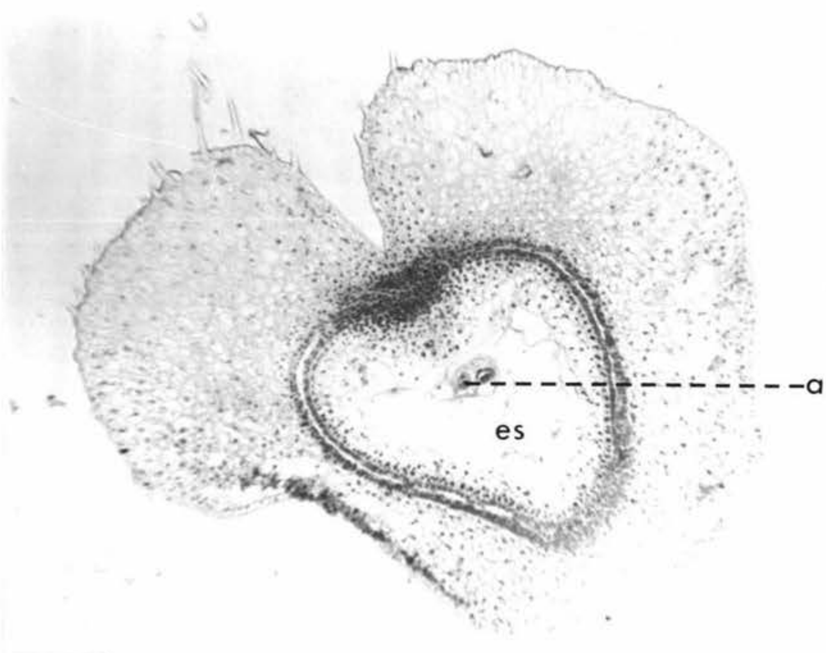


PLATE 20: Ovule type 'A' showing two antipodal cells (a) in the embryo sac (es)
(Treatment control +3^{o}C) (Magn x 40)

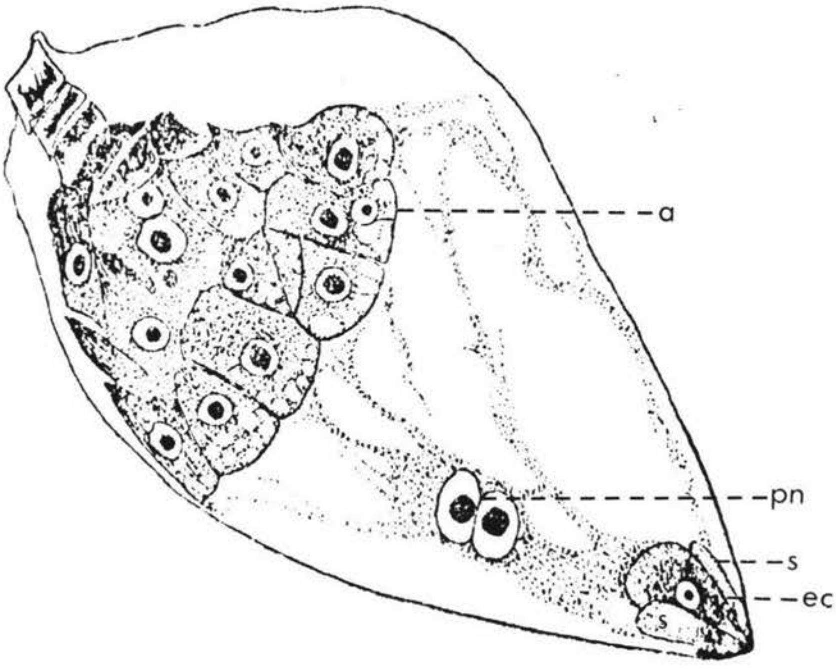


PLATE 21: A mature embryo sac, prior to fertilisation showing egg cell (ec), synergidae (s) polar nuclei (pn) and large antipodal cells (a)

(From Hoshikawa 1960)

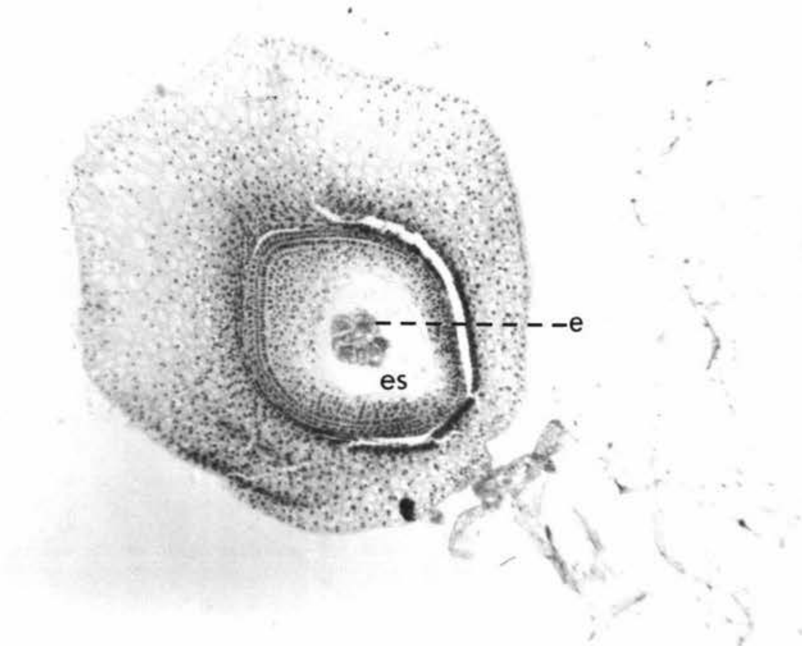


PLATE 22: Ovule type 'B', embryo sac (es) with about a 6-celled embryo (e)
(Treatment control + $3^{o}C$) (Magn x 40)

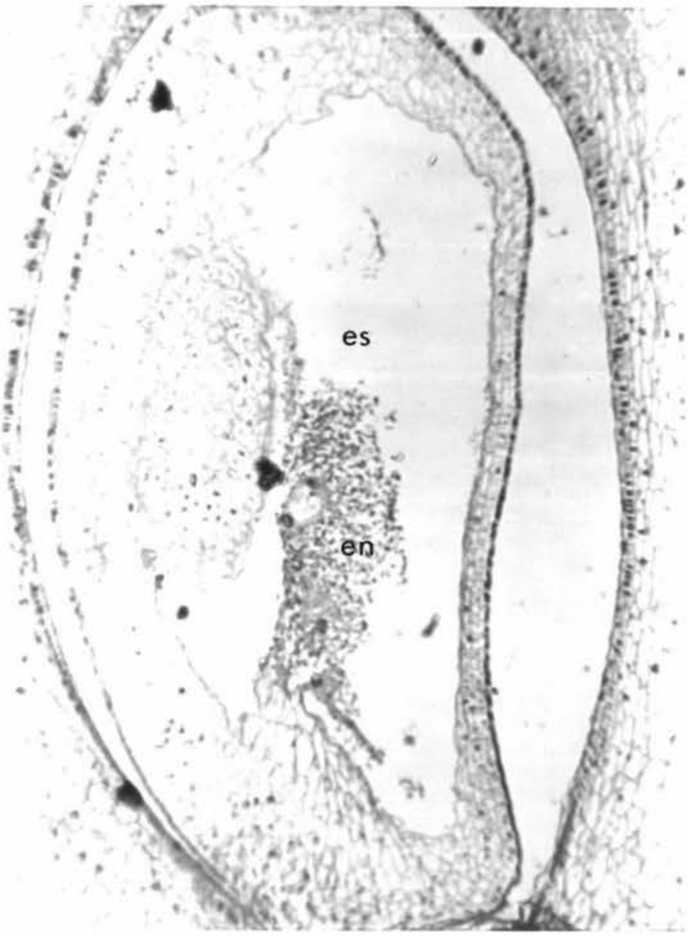


PLATE 23: Ovule type 'B' showing liquid endosperm (en) developing in the embryo sac (es) (Magn x 40) (Treatment control + $3^{o}C$).

In 'B' type ovules collected from the temperature treatment $-2^{o}C$ (Plate 24) the structures inside the ovule were not identified but an inverted T shaped ovule structure was clearly visible. This is similar in shape and size to the 'B' type ovule identified in ryegrass by Hill (1971). The dense vertical column of tissue may or may not be organically connected to the ovule.

Plate 25 shows a 'C' type ovule cut in a dorsoventral plane, in which the endosperm had developed well but liquid portions in the endosperm are still present. The embryo structure seems to have just begun differentiation. In another case, a 'D' type ovule collected from the $-4^{o}C$ temperature stress treatment clearly shows the unidentifiable shrivelled and shrunken structure typical of this category (Plate 26).

PLATE 24: An inverted T shaped ovule. The vertical column of dorsal tissue may or may not be organically connected to the ovule.
(Treatment $-2^{o}C$) (Magn x 40)

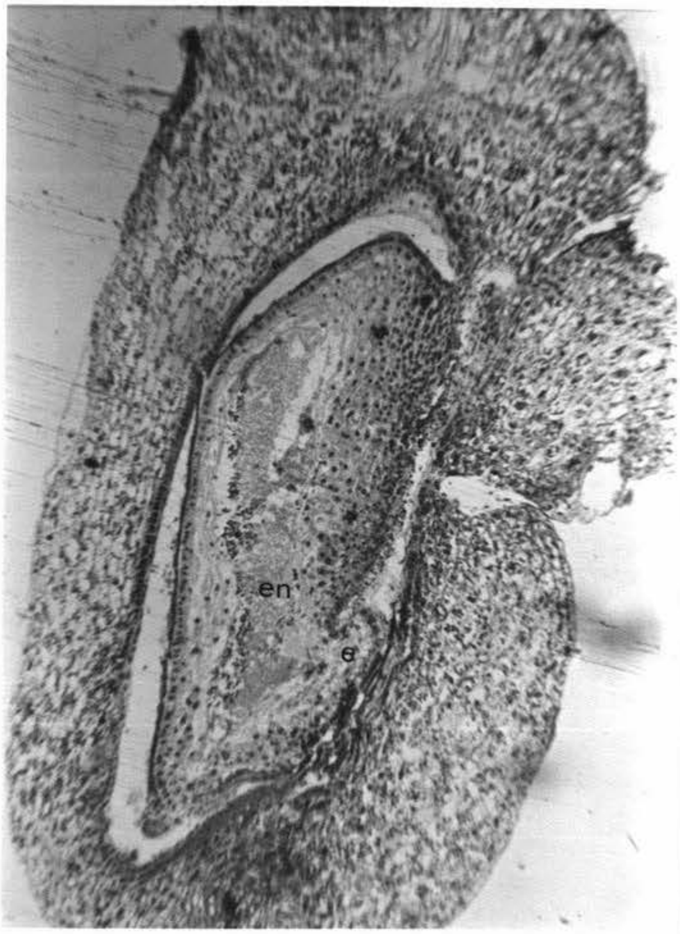


PLATE 25: Ovule type 'C'. Well developed liquid endosperm (en) and embryo (e)
(Dorsoventral section)
(Treatment control +3°C) (magn x 40)

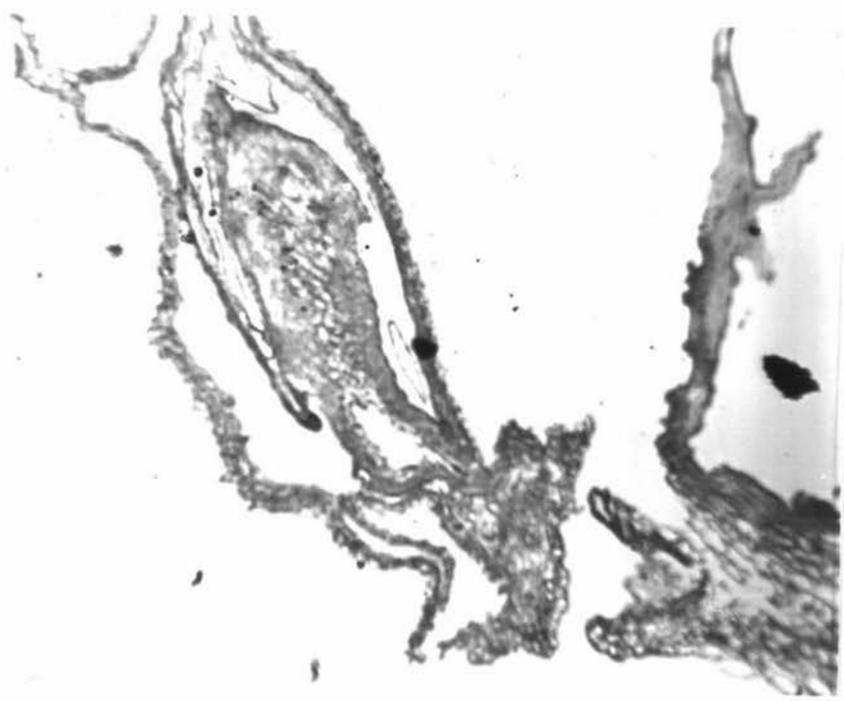


PLATE 26: Ovule type 'D' shrivelled and shrunken structures unidentifiable collapsed ovule. (Treatment -4^{o}C) (magn x 40)

5. DISCUSSION

Temperature stress has been shown to have a profound effect on grain number, yield and quality in Karamu wheat. In this experiment grain weight per ear and germination were significantly reduced by exposing plants for 6 hours to a -4°C frost. Although absence of a response to -2°C or +3°C temperature exposure may suggest that this wheat cultivator has some degree of resistance to frost damage, it is necessary to consider that the treatments used in the controlled temperature rooms may not necessarily reflect field conditions precisely. In a natural field environment, other factors such as humidity, wind speed, light and moisture may well influence the effect of extreme temperature. Furthermore, the temperatures in the pre-and post-temperature stress 'conditioning' periods in the current work were gradually lowered from and raised to 10°C over 6 and 4 hours, respectively before and after the stress treatment. Sudden changes in temperature are likely to be more damaging than a more gradual transition to and from the stress temperature (Langer and Olugbemi 1970; Single 1975). Therefore the amount of pre-chilling or post-chilling may be of major importance in determining the amount of field injury. Olugbemi (1968) found a -2.2°C temperature stress at anthesis produced more that 50% sterile florets in Hilgendorf 61 wheat. Different genetic and conditioning factors are likely to be associated with the above plant responses.

The basic factors which contribute directly to seed-yielding ability in grasses and cereals are the number of seedheads produced per plant, the number of florets produced per seed-head, the proportion of florets which set seed and individual seed weight.

Most investigators agree that seed 'set' (floret fertility) is of prime importance in seed yield in the Gramineae and that it is a component which shows a surprising degree of heritable variation (Burton and De Vane 1953; Cowan 1955; Bean 1972; Langer 1978; Griffiths, Lewis and Bean 1980). Bean (1972) reported a heritability value of 0.51 for floret fertility in S.170 tall fescue material, while other authors (Neilson and Kalton 1959; Knowles and Baenziger 1962) have stressed the importance of selecting highly fertile plants for improving seed yield. Bean (1972) has therefore emphasised that seed-yielding ability should be increased through an improvement in the efficiency of the reproductive system, where efficiency can be defined as the percentage of florets which produce seeds and the size of which these seeds develop, rather than by an increase in the size of the reproductive system by selection for increased numbers of seedheads and larger seedhead size.

In addition to the above factors, which contribute directly to seed yield, breeding can also provide the means of improving cultivar characters which limit yield indirectly; such as susceptibility to low temperature injury, loding and disease susceptibility.

In the current work the lowest temperature stress treatment of $-4^{o}C$ caused a significant disruption of normal seed setting and development in different ways, depending on the stage of plant and ovule development when the stress was applied. Among the stages of development tested in the current work, the only significant effects on grain number (seed setting), yield and quality occurred in the temperature stress treatment of $-4^{o}C$. Seed number, yield and quality were high and similar when temperatues of $-2^{o}C$ and $+3^{o}C$ were applied at any stage of plant development.

Ovules were classified into 6 groups for assessment of seed development. (A = apparently not fertilised, B = swollen, conical shaped, C = developing, D = shrunken, E = shrunken, reduced conical shape, R = rudimentary) as described earlier. Microtome sectioning of ovules was carried out to try to determine the morphological pathways of early seed development in both temperature stressed and unstressed wheat plants. A detailed examination of these effects showed there were four main categories of response to the different treatments.

1. <u>High sterility - nil seed formation and development category</u>

A temperature stress of $-4^{\circ}C$ applied 1 day before anthesis or 1 day after anthesis in the primary head resulted in a highly significant reduction in seed number, seed yield and components of yield as well as a substantial increase in percentage sterility of ovules. One hundred seed weight, seed yield per plant, germination and viable seed yield were virtually nil in the above treatments (i.e. $-4^{\circ}C$ applied at pre-anthesis and anthesis). Seed number was low and ranged from 0 to 12 seeds/head. The percentage sterility in terms of relative sterility (percentage 'D + R') and sterility index (percentage 'D' ovule types) was approximately 100% and 80% respectively. The majority of 'B' type ovules present 5 days after anthesis became 'D' types by 10 days after anthesis.

The number of rudimentary ('R' type) ovules present was similar in all treatments. For example the percentage of 'R' type ovules present 45 days after anthesis ranged from 18-24% and 26-32% in primary and secondary heads respectively.

The findings indicate that temperature below a critical point at about the time the anthers are visible induces floret sterility presumably by damaging certain reproductive organs, although there was no indication which organs were most susceptible to low temperature stress. However it has been shown in Russian Wild Rye that the main effect of low temperature at another extrusion involves the shrivelling of the anthers and pollen mortality, while high temperature damages pistillate tissue (Dotzenko 1967). This supports the theory that 'A' type ovules direct become 'D' type ovules within 5 days of the imposition of a $-4^{\circ}C$ temperature stress because of damage to male organs and the disruption of pollination and fertilisation processes so that no seed is set.

Olugbemi's (1968) study on the effect of temperature stresses of -2.2 up to $40^{\circ}C$ on wheat plants at different stages of development, (from pre-anthesis to grain development) suggested that complete floret sterility on a seedhead was seldom a feature of temperature injury. He indicated that each floret reacted independently to temperature stress. In the current work, presumably as a result of the more extreme temperature stress of $-4^{\circ}C$ applied, almost all florets were killed at the time of stress and no further seed development occurred after the stress period. In addition, a detailed examination of individual spikelets, florets and floret positions showed that when sterility was high it was distributed throughout the spike. All 6 positions studied had near total sterility when a $-4^{\circ}C$ stress was applied at 1 day before or 1 day after anthesis. In these treatments it seemed that all florets were equally susceptible to a $-4^{\circ}C$ temperature injury.

2. Partial seed formation but insignificant seed development category

When a temperature stress of $-4^{\circ}C$ was applied 3 days after anthesis percent fertility increased to a maximum of approximately 50% for primary and 5% for secondary heads by the final harvest, 45 days after anthesis. Although significant seed numbers occurred in this treatment, there was little increase in 100 seed weight germination and yield per plant after the stress had been applied. Presumably freezing injury had caused cessation of normal seed development processes as suggested by Single (1975).

In plants stressed 3 days after anthesis at -4^{O}C large numbers of 'C' and 'D' type ovules were found in the first harvest, 5 days after anthesis. The probable pathway to fertility was from ovule types A to B to C. A number of pathways leading to ovule sterility seem likely i.e. A to D, A to B to D, or A to B to C to D. Ovule development often proceeded rapidly and the intermediate stages were often not observed at the 5 day sampling period.

The 'C' type ovules which were found in this category tended to be most abundant in the 2 basal florets of the central and top portions of the head. This means in this category, ovules in the head reacted independently to temperature stress as also observed by Langer and Olugbemi (1970), the resultant ovule type produced depending on its stage of development when it was exposed to stress.

3. Near maximum seed formation but insignificant seed development category

At later stages of development, 6 or 9 days after anthesis, a -4^{O}C temperature stress did not affect the attainment of maximum seed number or percentage fertility which were near the maximum level recorded in the experiment. However, there was little increase in 100 seed weight, yield per plant, germination and viable seed yield in these treatments. The majority of ovules had developed to the 'C' stage before the stress was applied in these treatments. The distribution of 'C' type ovules within the head was similar to that described in Category 4 below. It is likely that freezing injury caused cessation of normal seed development processes from the time the low temperature stress was applied as found by Single (1975).

4. Normal seed formation and development category

When plants were stressed at -2^{O}C or +3^{O}C at any stage of development there was no significant effect on seed formation and development.

Ovules had already formed seed by the first harvest and continued normal development up to the final harvest, 45 days after anthesis. A similar pathway to successful seed development is evident in the work of Hill (1971, 1980) in ryegrass. However, it is interesting to note that the numbers of 'B' type ovules were significantly higher in the temperature stress treatment of -2^{o}C applied at 1 or 3 days after the first signs of anthesis (approximately 20% of the florets were 'B' ovules in secondary heads 5 days after anthesis). It may be concluded that the change from 'B' to 'C' was faster in the +3^{o}C treatments compared to -2^{o}C stress treatments. Few category 'B' ovules were observed in -4^{0}C treatments. This may be due to rapid development to a 'D' stage when a severe stress of -4^{o}C is applied to a 'A'.

It has been shown that under unfavourable conditions inlcuding certain low temperature situations the existence of 'B's' may become prolonged (Hill 1971). This may mean there is every possibility of abnormal ovule development, although in the present study the results do not show significant numbers of 'B' type ovules being aborted.

Hill (1971, 1980) has shown that the florets in the stage 'B' consist of an inverted T-shaped ovary, which can remain in an apparently quiescent stage for up to 3 weeks in ryegrass crops. Subsequently these ovules either resume further growth or collapse. He further suggested that the ability to develop seed or become a collapsed ovule may be associated with the length of the dormancy period of the zygote in many species.

In wheat, the normal dormancy period is reasonably short (16-18 hours) which suggests the change of seed development is likely to be much higher than in other species with a longer zygotic resting stage. The current results suggest that a temperature stress of -2^{o}C applied at anthesis or 3 days after anthesis may extend the dormancy period. Pope (1942) has shown that cell division in the zygote does not occur until 3 days after pollination in barley at $5^{o}C$. It is therefore suggested that low temperature prolongs the 'resting period' of the zygote which may mean that if this 'B' stage is sensitive to temperature stress there is more chance of disruption of seed set.

Further detailed embryology work (using light and the electron microscope) is needed to resolve the gaps in our knowledge of effects of low temperature stress on early seed development and ovule structure. Frequent sampling of wheat crops (since the zygote resting stage is relatively short) from early anthesis would be necessary to ensure adequate detection of 'B' type florets and the structural changes occurring with these ovules.

It is evident that in all the $-2^{o}C$ and $+3^{o}C$ treatments the effects on ovules were transient and reversible (e.g. super-cooling) and produced no significant effects on fertility, seed yield and components of yield.

The potential for yield was also regulated in that temperature had a marked effect on the number and location of florets which set grains and hence on the potential number of sites for grain development. Temperature also influenced seed development and grain filling and hence the expression of yield potential.

In general, the two basal florets set and filled more grains compared to the more distal florets in all $-2^{o}C$ and $+3^{o}C$ treatments. Similar results have been obtained by Barnard (1955) and by Warrington et al (1977) with Australian wheat cultivars.

The 3 basal florets which have direct vascular connection to the rachis are likely to have priority in assimlate supply compared to the distal florets which are connected by a subvascular system to the rachis (Hanif and Langer 1972).

The central part of the head although the site of highest potential fertility was most affected by a -4°C temperature stress in the current work and by high temperature in work conducted by Warrington et al (1977).

In Karamu wheat the distal third of the seedhead was found to be more fertile than the basal third of the head. However, Warrington et al (1977) found the reverse to be true in Gamenya wheat grown at 20/25 to 15/10°C. Different numbers and locations of florets per spikelet and numbers of tiny, basal sterile spikelets per head between Karamu and Gamenya are possible causes of these differences.

The 4 response categories already described clearly show that once a -4°C stress was applied, little or no further development in seed number and/or seed weight occurred. Other workers have provided details of the likely mechanisms in operation during frost injury in wheat. Many early workers (Gregory and Beeson 1926; Butler 1948; Livingston and Swinbank 1950) have found poor seed yield and quality when plants were damaged by frost. More detailed work by later workers such as Single (1961, 1964, 1966, 1975) and Langer and Olugbemi (1970) have shown that spikelets which are frozen fail to develop further and give an indication of the stage of development reached prior to the damaging frost. Single (1964) has also shown that until its emergence, the seedhead is protected from frost injury by the leaf sheath. Reproductive tissues of the developing wheat seedhead however are most susceptible to damage by freezing and depend upon supercooling (i.e. a situation where at subzero temperatures the water in the tissues remains liquid and not solid) to Escape injury at subzero temperatures (Single and Marcellos

1974). In the $-2^{o}C$ and $+3^{o}C$ treatments in the current work, presumably supercooling and cooling processes respectively as described by Marcellos & Single (1979) were in operation so that little or no freezing of water in cell tissues occurred and consequently no irreversible damage to seed formation, development and yield occurred. Other workers have found that a temperature of $-2.2^{o}C$ applied for 3 hours to 'Hilgendorf 61' wheat at early anthesis or at anthesis significantly reduced the percentage of normal spikelets by more than 50% with all florets sterile (Langer and Olugbemi 1970). Similarly Livingston and Swinbank (1950) found that a temperature stress of $-4^{o}C$ or $-2^{o}C$ when applied to 'Pawnee' wheat for 6 hours at anthesis produced 64.2 and 8.4% sterile florets per head respectively. This indicates different tolerances between cultivars to freezing injury. The different effects recorded may also be due to the different conditioning influences and definitions of sterility used. However, as long as crystallisation of internal moisture is not induced by contact with nuclei, seedheads may endure long periods at temperatures of $-5^{o}C$ or below without damage (Single 1964). There is some variation between cultivars in their degree of frost tolerance. Single and Marcellos (1974) found 17 cultivars could be ranked in order according to their reaction in terms of spikelet survival to freezing temperatures of $-3^{o}C$.

Differences in conditioning environments used appears to alter the degree of 'hardness', or resistance of plants to low temperature stress conditions. Langer and Olugbemi (1970) found significantly less sterility in plants which received a period of low temperature conditioning at $+7^{o}C$ compared to $+15.5^{o}C$ exposure before a $-2.2^{o}C$ frost.

Uniform definitions and measurements of sterility (including an assessment of fertility and sterility in all florets present) and temperature conditioning treatments may help to facilitate comparison of results obtained in different experiments. Such an approach may also help in an understanding of the dynamics of floret fertility and sterility within and between seedheads in stressed and non-stressed plants. Problems arise in terms of ease of identifying and distinguishing 'imperfect', 'rudimentary' and intermediate floret types during seed setting and development. Often detailed floret dissection and microscopic examination is needed to accurately discern different floret types. The floret classified as 'imperfect' is morphologically complete except that the stamens are reduced or absent. A proportion of these imperfect florets may set grain whereas this is not so in rudimentary florets (Barnard 1955). Barnard (1964) has classed florets as rudimentary when reduced palea and gynaecial structures are formed.

In order to obtain a complete description of the fertility potential of different wheat cultivars it appears that emphasis should be placed on the total number of fertile florets and all other types present per seedhead rather than solely on the total number of florets or spikelets per head as an index of grain yield and fertility. The seed development of the fertile florets must also be considered, since a high percentage of florets must be effectively pollinated, fertilised and develop seed of maximum weight and germination capacity to obtain the full yield potential of any crop.

The reduction in total seed yield by frost is influenced by changes in two main components of seed yield - seed number and seed weight. Seed number is the first stage in utilisation of yield potential through the processes of ovule development or seed set while increases in seed weight can only occur after seed formation through the process of seed development. In the case of a high degree of unsuccessful seed formation in the first stage, it is obvious that total seed yield will be reduced due to the presence of large numbers of sterile florets. However, even if the first stage i.e. seed formation is successful it does not assure the attainment of high seed yield. Successful utilisation of the yield potential i.e. seed development is a necessary step to obtain maximum seed yield and viable seed yield.

Studies of the mechanisms by which low temperature sress affects ovule development may also be useful in explaining the mechanism of frost injury causing an ovule to become sterile. This could help physiologists and plant breeders to overcome such problems. Langer and Olugbemi (1970) suggested there may be a critical stage of reproductive development, probably of quite short duration, when florets were most susceptible to low temperature injury and the florets passing through this susceptible stage are most likely to become sterile. The high percent sterility at -4^{o}C temperature applied at pre-anthesis or anthesis suggests that the most critical stage as mentioned by Langer and Olugbemi (1970) appears to be from 1 day before up to 3 days after anthesis in Karamu wheat. The severity of temperature stress may also influence numbers and location of sterile ovules within the head.

The current work has produced results with practical implications for wheat production.

The experiment has shown that substantial disruption to normal seed development resulting in low seed yields can occur when Karamu wheat plants are exposed to a -4^{o}C temperature stress for 6 hours at any stage from 1 day before anthesis up to 9 days after anthesis. The different stages of plant development used in the current work had little importance when temperature stress was severe. The -4^{o}C temperature stress applied from 1 day before anthesis up to 3 days after anthesis is reduced seed yield by decreasing seed number while in plants stressed at later stages of growth (6 or 9 days after anthesis) yield was reduced by disruption of seed development. The study also provides preliminary information on the mechanisms in operation and an understanding of the effects of low temperature stress on pathways of ovule development and on seed development and yield in Karamu wheat.

Single (1968 & 1975) has suggested that breeding for frost resistance and earlier flowering may offer one of the most promising avenues for yield improvement. Furthermore, it may be worthwhile to consider the structure of the wheat plant as well as its inherent resistance to low temperature stress. In monoculms compared to multiculms if a period of low temperature stress occurs during the shorter single flowering period losses may be greater, since there is no capacity to form secondary tillers. However, there is some capacity for compensation within the seedheads of monoculms (Donald 1979).

Alterations in the time of sowing may make it possible for farmers to avoid producing cereal crops that flower during the times when the incidence of frosts are most likely. In practice this is often not possible since, for example, soil moisture levels may cause an unavoidable delay in planting wheatlands.

Frost resistance, earliniess of flowering and sowing time are factors which may enable new wheat cultivars to be grown in the plains (Tarai) and hills of Nepal.

The results suggest that while anthesis, pollination and seed set are essential pre-requisites to seed production low temperature stress conditions may cause considerable disruption of these processes and also cause alterations in the number (fertility), weight and germination capacity of seeds during the processes of seed development. It may be possible to estimate the degree of frost injury before final harvest by examining ovule types and development.

A sound knowlege of the physiological processes underlying seed production (especially during early seed development) in both temperature stressed and unstressed wheat plants is needed to provide a logical basis for the development of cultivars with increased frost resistance, fertility and yield.

6. CONCLUSION

The results in the present study suggest that the lowest temperature reached determined the nature and severity of temperature injury in Karamu wheat when plants were stressed at one day before anthesis up to 9 days after anthesis. Florets about one day before the first signs of anthesis up to a few days after anthesis were most susceptible to temperature injury when exposed to a $-4^{o}C$ temperature stress. Temperature stress treatments of $+3^{o}C$ and $-2^{o}C$ for 6 hours had no significant effects on seed set, yield and germination at any stage of plant development. Since only one cultivar was tested, the results of this experiment cannot be presumed to apply to all wheat cultivars. However, this and other work reported elsewhere indicates that all the major wheat cultivars are most sensitive to frost injury at anthesis and that significant floret sterility and yield reduction may occur at temperatures of $-2^{o}C$ to $-4^{o}C$ and below (Single 1964; Livingston and Swinbank 1965; Olugbemi 1968; Single 1968; Single and Marcellos 1974; Single 1975). It was evident in this experiment that florets in any part of the seedhead could be injured and further development curtailed. Distinct changes in ovule morphology and anatomy also occurred so that shrunken empty ovules were evident within a few days of lethal low temperature stress.

Since there is an absence of highly resistant spring wheat cultivars to low temperature injury and a limited possibility in breeding for this character, practices that lead to escape from injury seem to be the obvious short term alternative. Such practises include selection of early or late planting time(s) and of early maturing cultivars with a short flowering phase during which seedheads are most susceptible.

In the long term the accumulation of a detailed understanding of the physiological processes which occur in low temperature stressed and unstressed plants during anthesis and early seed development may help to provide a basis for breeding and producing wheat cultivars with increased frost resistance and fertility at anthesis, the most susceptible stage of plant development.

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KEY TO APPENDICES

(a) GENERAL

HARVEST 1 =	Harvest at	5	days	after	anthesis
HARVEST 2 =	" "	10	"	"	"
HARVEST 3 =	" "	15	"	"	"
HARVEST 4 =	" "	20	"	"	"
HARVEST 5 =	" "	25	"	"	"
HARVEST 6 =	" "	45	"	"	"

S_1 = Stage of plant development at stress, 1 day before anthesis (pre anthesis)

S_2 = Stage of plant development at stress, 1 day after anthesis (anthesis)

S_3 = Stage of plant development at stress, 3 days after anthesis

S_4 = Stage of plant development at stress, 6 days after anthesis

S_5 = Stage of plant development at stress, 9 days after anthesis

T_1 = Temperature stress of $-4^{o}C$

T_2 = Temperature stress of $-2^{o}C$

T_3 = Temperature stress of $+3^{o}C$

(b) RAW DATA AND TREATMENT MEANS

Firstly, three replicates of the raw data are presented in the columns 1, 2 and 3 in each appendix, thereafter the treatment means are presented. For example: -

In Appendices 1 - 24 and 33 - 34

ST Means = Treatment means

In the Appendices 25 - 32 and 35 - 36
TSHV Means = Treatment means

Data in the columns 1, 2 and 3 of the treatment means in Appendices 1 to 24 and 33 to 34 refer to the results for temperature treatments of -4°C, -2°C and +3°C, respectively.

(c) STATISTICAL ANALYSES

Duncan's New Multiple Range Test was used to examine the differences between treatment means.

In Appendices 1 - 16 means with different subscripts in the Upper Case indicate Significant differences at a $P<0.05$ due to the different stages of plant development only within any one temperature treatment. However, means with different subscripts in the lower case indicate significant differences at $P<0.05$ due to different stress temperatures only within any one stage of plant development.

Means in Appendices 17 to 24 and 33 to 34 with different subscripts in the lower case are significantly different at $P<0.05$ within any one harvest.

(d) OVULE POSITION DATA AND ANALYSES

The distribution of different types of ovules in 6 positions within the head are presented in Appendices 25 to 32 and 35 to 36. Raw data are represented by the following symbols.

HB VB = Position 1 (consisting of the two basal ovules in all spikelets and/or the tiny basal spikelets in the lower 1/3 of the head).

HB VM = Position 3 (consisting of the 2 basal ovules in all spikelets in the central 1/3 of the head).

HB VT = Position 5 (consisting of the two basal ovules in all spikelets in the upper 1/3 of the head.

HT VB = Position 2 (consisting of the third and fourth ovules from the base in all spikelets in the bottom 1/3 of the head).

HT VM = Position 4 (consisting of the third and fourth ovules from the base in all the spikelets in the central 1/3 of the head).

HT VT = Position 6 (consisting of the third and fourth ovules from the base in all spikelets in the upper 1/3 of the head).

Treatment means for ovule positions are presented in tables under the heading of TSHV means. In such tables data in the columns headed; B, M and T the treatment means refer to the results for positions VB, VM and VT. Therefore;

HB B = Position 1 (as above)
HB M = Position 3 (as above)
HB T = Position 5 (as above)
T B = Position 2 (as above)
T M = Position 4 (as above)
T T = Position 6 (as above)

Duncan's New Multiple Range Test was used to examine differences between different means. Different subscripts in the lower case indicate significant differences at $P<0.05$ between the 6 positions within the head in each treatment only.

APPENDIX 1: WEIGHT OF 100 SEEDS PER PLANT IN GRAMS = 100 PP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.123750	0.128571	0.110302
S1	T3	0.130914	0.118385	0.129972
S2	T1	0.043476	0.057406	0.041175
S2	T2	0.073400	0.161635	0.081543
S2	T3	0.082113	0.068514	0.048288
S3	T1	0.070253	0.062303	0.062091
S3	T2	0.086666	0.123250	0.120553
S3	T3	0.124605	0.131908	0.123313

ST MEANS

	1	2	3
S1	0.000000 Aa+	0.120874 Ab	0.126424 Bb
2	0.047353 Ba	0.105526 Ab	0.066305 Ac
3	0.064882 Ba	0.110156 Ab	0.126609 Bb

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.36419	0.40628	0.30814
S1	T3	0.32097	0.44579	0.48478
S2	T1	0.06664	0.03200	0.03332
S2	T2	0.30970	0.31947	0.35161
S2	T3	0.41130	0.30615	0.27450
S3	T1	0.05192	0.05065	0.04792
S3	T2	0.29933	0.47306	0.29642
S3	T3	0.33145	0.33630	0.34960
S4	T1	0.17178	0.13433	0.11622
S4	T2	0.53392	0.40935	0.42549
S4	T3	0.44231	0.23980	0.50935
S5	T1	0.22598	0.24632	0.25386
S5	T2	0.29280	0.41061	0.35755
S5	T3	0.32115	0.35697	0.31503

ST MEANS

	1	2	3
S1	0.00000 Aa	0.35954 Ab	0.41718 Ab
2	0.04399 ABa	0.32693 Ab	0.35065 Ab
3	0.05016 ABa	0.35644 Ab	0.33912 Ab
4	0.14073 Ba	0.47625 Bb	0.39716 Ab
5	0.24205 Ca	0.35365 Ab	0.33105 Aab

+ The meaning of subscripts in all appendices is described in the key to appendices.

APPENDIX 1 CONTINUED:

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA
====

S1	T1	0.00000	0.00000	0.03448
S1	T2	0.84429	1.04967	0.96321
S1	T3	0.88035	0.97534	0.76850
S2	T1	0.00000	0.03333	0.03750
S2	T2	0.84484	0.72180	0.72244
S2	T3	0.95250	0.80327	0.83656
S3	T1	0.04341	0.05401	0.04156
S3	T2	1.01403	0.97614	0.77778
S3	T3	0.84890	1.02486	0.87080
S4	T1	0.13381	0.08878	0.12616
S4	T2	0.89149	0.84261	1.00186
S4	T3	1.03375	0.98076	1.05316
S5	T1	0.19101	0.21711	0.19963
S5	T2	0.74868	0.82425	0.84418
S5	T3	0.94483	0.93547	0.89123

ST MEANS
========

	1	2	3
S1	0.01149 Aa	0.95239 Cb	0.87473 Ab
2	0.02361 Aa	0.76303 Ab	0.86411 Ab
3	0.04633 Aa	0.92265 BCb	0.91482 ABb
4	0.11625 ABa	0.91199 BCb	1.02256 Bb
5	0.20258 Ba	0.80570 ABb	0.92384 ABb

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA
====

S1	T1	0.0000	0.0000	0.0000
S1	T2	1.9725	1.6705	1.9546
S1	T3	1.7574	1.9214	1.9753
S2	T1	0.0357	0.0333	0.2739
S2	T2	1.7453	1.5988	1.8525
S2	T3	1.9316	1.6864	1.6534
S3	T1	0.0462	0.0319	0.0436
S3	T2	1.6858	1.4765	1.5625
S3	T3	1.6695	1.6899	1.4609
S4	T1	0.1745	0.1686	0.1713
S4	T2	2.1961	2.0728	2.0959
S4	T3	2.1077	2.1175	2.3517
S5	T1	0.1859	0.1889	0.1717
S5	T2	1.4553	1.4250	1.5967
S5	T3	1.6309	1.4537	1.6145

ST MEANS
========

	1	2	3
S1	0.0000 Aa	1.9326 Cb	1.8847 Bb
2	0.1143 ABa	1.7322 ABb	1.8244 Bb
3	0.0406 ABa	1.5816 ABb	1.6068 Ab
4	0.1715 ABa	2.1216 Db	2.1923 Cb
5	0.1822 BBa	1.4923 Ab	1.5604 Ab

APPENDIX 1 CONTINEUD

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA
====

S1	T1	0.0000	3.3655	0.0000
S1	T2	2.8766	3.2247	2.9705
S1	T3	3.1365	2.6859	3.0319
S2	T1	0.0000	2.2293	0.0296
S2	T2	2.4742	2.7234	2.5741
S2	T3	2.7264	2.4965	2.6020
S3	T1	0.0336	0.0361	0.0347
S3	T2	2.6165	2.7965	2.7516
S3	T3	2.9770	2.5009	2.7247
S4	T1	0.1092	0.1016	0.0992
S4	T2	2.7487	2.7274	2.8142
S4	T3	2.8731	3.1195	3.0493
S5	T1	0.1825	0.2278	0.2013
S5	T2	2.5783	2.4171	2.7522
S5	T3	2.5480	6.9673	3.0491

ST MEANS
========

	1		2		3	
S1	1.1218	Aa	3.0239	Ab	2.9515	Ab
2	0.7530	Aa	2.5906	Ab	2.6083	Ab
3	0.0348	Aa	2.7215	Ab	2.7342	Ab
4	0.1034	Aa	2.7634	Ab	3.0139	Ab
5	0.2039	Aa	2.5825	Ab	4.1882	Ab

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : 100PP

DATA
====

S1	T1	0.0000	3.7793	0.0000
S1	T2	4.7508	4.6446	4.9016
S1	T3	4.9313	4.8709	5.6488
S2	T1	0.0000	0.0000	0.0000
S2	T2	4.7257	4.8678	4.8169
S2	T3	4.9859	4.9309	4.8748
S3	T1	0.0396	0.0302	0.0324
S3	T2	4.6215	4.4883	4.1971
S3	T3	4.9449	5.0117	4.8141
S4	T1	0.0980	0.0990	0.1011
S4	T2	4.8371	4.4702	4.9421
S4	T3	4.7568	4.6408	4.9034
S5	T1	0.0796	0.0882	0.0711
S5	T2	4.6656	4.5528	4.1992
S5	T3	4.7823	4.9086	5.0319

ST MEANS
========

	1		2		3	
S1	1.2598	Ba	4.7657	Ab	5.1504	Ab
2	0.0000	Aa	4.8035	Ab	4.9306	Ab
3	0.0341	Aa	4.4356	Ab	4.9236	Ab
4	0.0994	Aa	4.7498	Ab	4.7670	Ab
5	0.0796	Aa	4.4725	Ab	4.9076	Ab

APPENDIX 2: WEIGHT OF 100 SEEDS PER PRIMARY HEAD IN GRAMS = 100P

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.16349	0.16481	0.12917
S1	T3	0.19150	0.14400	0.18247
S2	T1	0.04348	0.05741	0.04118
S2	T2	0.11000	0.29452	0.11397
S2	T3	0.09548	0.09574	0.03655
S3	T1	0.07244	0.07114	0.06615
S3	T2	0.08687	0.15714	0.14326
S3	T3	0.15973	0.18163	0.15400

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.15249 Ab	0.17266 Eb
2	0.04735 Aa	0.17283 Ab	0.07593 Ea
3	0.06991 Aa	0.12909 Aa	0.16512 Eb

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.59270	0.56376	0.48120
S1	T3	0.54672	0.68979	0.74076
S2	T1	0.06664	0.03200	0.03332
S2	T2	0.53521	0.49313	0.55142
S2	T3	0.61319	0.60069	0.54310
S3	T1	0.05698	0.05614	0.05135
S3	T2	0.47325	0.57849	0.50476
S3	T3	0.53395	0.55364	0.56745
S4	T1	0.29529	0.22345	0.16977
S4	T2	0.77058	0.72708	0.72058
S4	T3	0.70000	0.67161	0.75000
S5	T1	0.41062	0.41192	0.34333
S5	T2	0.50463	0.56892	0.57742
S5	T3	0.56751	0.54000	0.53117

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.54589 Ab	0.65909 BCc
2	0.04399 Aa	0.52659 Ab	0.58566 ABb
3	0.05482 Aa	0.51883 Ab	0.55168 Ab
4	0.22950 Ba	0.73942 Bb	0.70720 Cb
5	0.38862 Ba	0.55032 Ab	0.54623 Ab

APPENDIX 2: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA

S1	T1	0.00000	0.00000	0.03448
S1	T2	1.34719	1.47672	1.34100
S1	T3	1.32679	1.32142	1.19361
S2	T1	0.00000	0.03333	0.03750
S2	T2	1.29285	1.19436	1.25734
S2	T3	1.27792	1.29072	1.19121
S3	T1	0.04341	0.06915	0.04156
S3	T2	1.40945	1.35614	1.30902
S3	T3	1.31974	1.45332	1.19511
S4	T1	0.16643	0.17105	0.17391
S4	T2	1.46727	1.22291	1.24666
S4	T3	1.36741	1.41156	1.42234
S5	T1	0.34838	0.34214	0.33710
S5	T2	1.10251	1.19799	1.17809
S5	T3	1.33333	1.41570	1.33986

ST MEANS

	1	2	3
S1	0.01149 Aa	1.38830 Cb	1.28061 Ab
2	0.02361 Aa	1.24818 ABb	1.25328 Ab
3	0.05137 Aa	1.35154 BCb	1.32273 ABb
4	0.17047 Ba	1.31228 BCb	1.40044 Bb
5	0.34254 Ca	1.15953 Ab	1.36296 ABc

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	2.4588	2.2585	2.4466
S1	T3	2.3676	2.5567	2.3731
S2	T1	0.0357	0.0333	0.0242
S2	T2	2.3489	2.1231	2.2688
S2	T3	2.5000	2.2608	2.3152
S3	T1	0.0462	0.0348	0.0407
S3	T2	2.3960	2.1141	2.0197
S3	T3	2.1436	2.1529	1.9396
S4	T1	0.3217	0.3656	0.3130
S4	T2	2.5417	2.5180	2.6078
S4	T3	2.7615	2.6200	2.7484
S5	T1	0.3497	0.3717	0.3114
S5	T2	1.7420	1.3463	2.1029
S5	T3	2.0876	2.1274	2.9241

ST MEANS

	1	2	3
S1	0.0000 Aa	2.3880 BCb	2.4325 BCb
2	0.0311 ABa	2.2469 BCb	2.3567 BCb
3	0.0432 ABa	2.1706 Bb	2.0767 Ab
4	0.3334 Ba	2.5553 Cb	2.7100 Cb
5	0.3443 Ba	1.7304 Ab	2.3797 ABb

Appendix 2: Continued

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	3.4626	3.5365	3.4558
S1	T3	3.5180	3.4030	3.6612
S2	T1	0.0000	0.0000	0.0296
S2	T2	2.8601	3.1338	2.9953
S2	T3	3.1966	2.9120	3.0954
S3	T1	0.0358	0.0404	0.0366
S3	T2	3.0019	3.0736	3.1497
S3	T3	3.5344	3.2237	3.2739
S4	T1	0.1646	0.1563	0.1685
S4	T2	3.1666	3.0887	3.4145
S4	T3	3.5797	3.4456	3.4646
S5	T1	0.3294	0.3842	0.4463
S5	T2	3.0401	3.0222	3.4835
S5	T3	3.1819	3.1129	3.3049

ST MEANS

	1		2		3	
S1	0.0000	Aa	3.4850	Cb	3.5274	Cb
2	0.0099	Aa	2.9964	Ab	3.0680	Ab
3	0.0376	Aa	3.0751	ABb	3.3440	BCc
4	0.1631	Aa	3.2233	Bb	3.4966	Cc
5	0.3866	Ba	3.1819	ABb	3.1999	ABb

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : 100P

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	4.5335	4.2983	4.9897
S1	T3	5.2415	4.4470	5.0666
S2	T1	0.0000	0.0000	0.0000
S2	T2	4.6014	4.3133	4.8576
S2	T3	5.6511	4.7722	4.9038
S3	T1	0.0467	0.0371	0.0397
S3	T2	4.2165	3.8727	4.4707
S3	T3	4.7557	4.6337	4.7216
S4	T1	0.1620	0.1709	0.1631
S4	T2	4.8046	4.5191	4.7398
S4	T3	4.6073	4.2363	5.0061
S5	T1	0.1351	0.1589	0.1693
S5	T2	4.4353	4.6313	3.4820
S5	T3	4.7542	4.7337	4.8385

ST MEANS

	1		2		3	
S1	0.0000	Ab	4.6072	Ab	4.9164	Ab
2	0.0000	Ab	4.5908	Ab	5.1090	Ab
3	0.0412	Ab	4.1866	Ab	4.7703	Ab
4	0.1654	Ab	4.6879	Ab	4.6166	Ab
5	0.1544	Ab	4.1829	Ab	4.7755	Ab

APPENDIX 3: WEIGHT OF 100 SEEDS PER SECONDARY HEAD IN GRAMS = 100S

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.097938	0.087368	0.084057
S1	T3	0.088584	0.085713	0.092018
S2	T1	0.000000	0.000000	0.000000
S2	T2	0.054822	0.048837	0.054321
S2	T3	0.059340	0.053515	0.059864
S3	T1	0.061288	0.030952	0.039129
S3	T2	0.086511	0.098706	0.091963
S3	T3	0.093452	0.096078	0.097159

ST MEANS

	1	2	3
S1	0.000000 Aa	0.089787 Bb	0.088772 Bb
2	0.000000 Aa	0.052660 Ab	0.057573 Ab
3	0.043790 Ba	0.092394 Bb	0.095563 Bb

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.28612	0.33571	0.25486
S1	T3	0.24733	0.35589	0.37273
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.23947	0.24860	0.27933
S2	T3	0.35339	0.28724	0.18260
S3	T1	0.02778	0.03500	0.03636
S3	T2	0.23823	0.42546	0.23369
S3	T3	0.26268	0.25645	0.26778
S4	T1	0.11889	0.10103	0.09693
S4	T2	0.44687	0.35190	0.32290
S4	T3	0.34728	0.05127	0.42396
S5	T1	0.14720	0.18473	0.20541
S5	T2	0.23940	0.33599	0.27402
S5	T3	0.23576	0.26123	0.24183

ST MEANS

	1	2	3
S1	0.00000 Aa	0.29223 Ab	0.32531 Ab
2	0.00000 Aa	0.25580 Ab	0.27441 Ab
3	0.03305 Aa	0.29913 Ab	0.26230 Ab
4	0.10562 ABa	0.37389 Ab	0.27417 Ab
5	0.17911 Ba	0.28313 Aa	0.24627 Aa

APPENDIX 3: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.68393	0.81712	0.87496
S1	T3	0.75362	0.86523	0.58795
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.76442	0.61015	0.58227
S2	T3	0.83879	0.67016	0.72294
S3	T1	0.00000	0.03871	0.00000
S3	T2	0.87535	0.85965	0.58010
S3	T3	0.70983	0.91739	0.79471
S4	T1	0.09926	0.05535	0.09516
S4	T2	0.68915	0.69735	0.92782
S4	T3	0.93012	0.86768	0.92966
S5	T1	0.13022	0.14231	0.14160
S5	T2	0.59785	0.69911	0.74386
S5	T3	0.82909	0.79211	0.74641

ST MEANS

	1	2	3
S1	0.00000 Aa	0.79200 Ab	0.73560 Ab
2	0.00000 Aa	0.65228 Ab	0.74397 Ab
3	0.01290 Aa	0.77170 Ab	0.80731 ABb
4	0.08326 Aa	0.77144 Ab	0.90922 Bb
5	0.13811 Aa	0.68027 Ab	0.78920 ABb

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	1.8135	1.7563	1.8060
S1	T3	1.6038	1.7545	1.8615
S2	T1	0.0000	0.0000	0.9076
S2	T2	1.6109	1.4782	1.7379
S2	T3	1.7261	1.7543	1.4994
S3	T1	0.0000	0.0244	0.0320
S3	T2	1.4753	1.3357	1.4444
S3	T3	1.5220	1.5284	1.3201
S4	T1	0.1208	0.1175	0.1275
S4	T2	2.0971	1.9793	1.9594
S4	T3	1.9575	1.9589	2.2144
S5	T1	0.1266	0.1286	0.1242
S5	T2	1.3556	1.4486	1.4788
S5	T3	1.5134	1.2720	1.2994

ST MEANS

	1	2	3
S1	0.0000 A	1.7919 BC	1.7400 B
2	0.3025 B	1.6090 AB	1.6599 B
3	0.0188 AB	1.4185 A	1.4569 AB
4	0.1219 AB	2.0119 C	2.0436 C
5	0.1265 AB	1.4276 A	1.3616 A

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA
====

S1	T1	0.0000	3.3655	0.0000
S1	T2	2.7274	3.1352	2.8403
S1	T3	3.0042	2.4609	2.8292
S2	T1	0.0000	2.2293	0.0000
S2	T2	2.3340	2.6074	2.4169
S2	T3	2.6058	2.3606	2.3899
S3	T1	0.0217	0.0299	0.0250
S3	T2	2.5068	2.7236	2.6494
S3	T3	2.8437	2.2947	2.5460
S4	T1	0.0752	0.0732	0.0586
S4	T2	2.6284	2.6284	2.6365
S4	T3	2.6514	3.0201	2.8982
S5	T1	0.1337	0.1536	0.1334
S5	T2	2.4073	2.1332	2.5391
S5	T3	2.3438	13.0388	2.9733

ST MEANS
========

	1	2	3
S1	1.1218 Aa	2.9009 Aa	2.7648 Aa
2	0.7431 Aa	2.4527 Aa	2.4521 Aa
3	0.0255 Aa	2.6266 Aa	2.5631 Aa
4	0.0690 Aa	2.6311 Aa	2.8566 Aa
5	0.1402 Aa	2.3599 Aa	6.1167 Bb

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : 100S

DATA
====

S1	T1	0.0000	3.7793	0.0000
S1	T2	4.8200	4.7108	4.8813
S1	T3	4.8415	5.0037	5.7851
S2	T1	0.0000	0.0000	0.0000
S2	T2	4.7603	5.0314	4.8060
S2	T3	4.7767	4.9924	4.8643
S3	T1	0.0286	0.0200	0.0220
S3	T2	4.7578	4.6806	4.1375
S3	T3	5.0142	5.0607	4.8447
S4	T1	0.0702	0.0677	0.0608
S4	T2	4.8473	4.4527	4.9921
S4	T3	4.8020	4.7760	4.8754
S5	T1	0.0650	0.0577	0.0413
S5	T2	4.7258	4.5261	4.4403
S5	T3	4.7901	4.9467	5.0803

ST MEANS
========

	1	2	3
S1	1.2598 Ba	4.8040 Ab	5.2101 Ab
2	0.0000 Aa	4.8659 Ab	4.8778 Ab
3	0.0235 Aa	4.5253 Ab	4.9732 Ab
4	0.0663 Aa	4.7640 Ab	4.8178 Ab
5	0.0547 Aa	4.5640 Ab	4.9390 Ab

APPENDIX 4: SEED NUMBER PER PLANT = SNOP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	106.667	67.667	55.000
S1	T3	124.000	74.333	122.333
S2	T1	7.667	18.000	11.333
S2	T2	99.000	106.000	99.333
S2	T3	82.000	132.333	97.333
S3	T1	52.667	63.667	51.000
S3	T2	125.000	133.333	84.333
S3	T3	105.667	117.000	108.667

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SN

ST MEANS

	1	2	3
S1	0.000 Aa	76.444Ab	106.889Ab
2	12.333 Aa	101.444ABb	103.889Ab
3	55.778 Ba	114.222Bb	110.444Ab

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA

S1	T1	0.00	0.00	0.00
S1	T2	125.67	146.67	188.33
S1	T3	165.33	182.00	142.33
S2	T1	1.00	8.33	1.00
S2	T2	199.33	150.67	175.67
S2	T3	215.33	192.00	151.67
S3	T1	34.67	51.33	32.00
S3	T2	199.67	184.33	242.00
S3	T3	213.00	187.33	206.33
S4	T1	189.00	177.67	162.33
S4	T2	189.67	153.33	219.67
S4	T3	184.33	170.00	196.00
S5	T1	178.33	185.67	142.33
S5	T2	250.00	154.00	187.67
S5	T3	203.33	165.00	224.00

ST MEANS

	1	2	3
S1	0.00 Aa	154.22 Ab	163.22 Ab
2	3.44 Aa	175.22 ABb	186.33 Ab
3	39.33 Aa	208.67 Bb	202.22 Ab
4	176.33 Ba	187.56 ABa	183.44 Aa
5	168.78 Ba	197.22 ABa	197.44 Aa

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA
====

S1	T1	0.00	0.00	9.67
S1	T2	172.33	150.33	244.67
S1	T3	230.67	193.33	157.67
S2	T1	0.00	7.00	2.67
S2	T2	245.33	247.67	218.33
S2	T3	186.67	234.67	203.33
S3	T1	43.00	62.33	25.67
S3	T2	190.00	226.33	177.00
S3	T3	237.00	249.33	287.67
S4	T1	92.67	175.33	136.33
S4	T2	207.67	173.67	215.33
S4	T3	185.67	235.67	226.33
S5	T1	148.33	124.67	179.00
S5	T2	177.33	199.33	197.67
S5	T3	248.33	203.00	209.00

ST MEANS
=========

	1	2	3
S1	3.22 Aa	189.11 Ab	193.89 Ab
2	3.22 Aa	237.11 Ab	208.22 Ab
3	43.67 Aa	197.78 Ab	258.00 Bc
4	134.78 Ba	198.89 Ab	215.89 ABb
5	150.67 Ba	191.44 AAb	220.11 ABb

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA
====

S1	T1	0.00	0.00	0.00
S1	T2	190.67	233.00	194.00
S1	T3	240.33	214.67	217.33
S2	T1	4.67	2.00	15.33
S2	T2	261.67	278.00	242.33
S2	T3	172.00	186.33	266.67
S3	T1	44.00	53.33	55.00
S3	T2	183.67	274.67	232.00
S3	T3	196.67	202.33	233.33
S4	T1	201.00	254.00	228.67
S4	T2	233.33	288.00	242.33
S4	T3	287.33	215.33	211.33
S5	T1	196.67	204.33	218.00
S5	T2	218.33	218.33	300.00
S5	T3	275.33	240.00	199.33

ST MEANS
=========

	1	2	3
S1	0.00 Aa	205.89 Ab	224.11 Ab
2	7.33 Aa	260.67 Ab	208.33 Ab
3	50.78 Aa	230.11 Ab	210.78 Ab
4	227.89 Ba	254.56 Ab	238.00 Ab
5	206.33 Ba	245.56 Ab	238.22 Ab

APPENDIX 4: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA

S1	T1	0.00	1.00	0.00
S1	T2	254.67	233.00	160.67
S1	T3	200.67	187.00	194.33
S2	T1	0.00	5.67	9.00
S2	T2	191.33	214.67	157.00
S2	T3	245.00	190.67	146.33
S3	T1	48.67	63.67	32.67
S3	T2	240.67	267.33	282.33
S3	T3	263.67	228.33	187.33
S4	T1	141.00	162.67	131.67
S4	T2	250.67	248.00	220.33
S4	T3	185.67	197.00	205.00
S5	T1	217.67	144.00	225.67
S5	T2	193.67	150.33	215.67
S5	T3	197.00	97.00	234.67

ST MEANS

	1	2	3
S1	0.33Aa	216.11Ab	194.00Ab
2	4.89Aa	187.67Ab	194.00Ab
3	48.33Aa	263.44Bb	226.44Ab
4	145.11Ba	239.67Ab	195.89Aa
5	195.78Ba	186.56Aa	176.22Aa

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNOP

DATA

S1	T1	0.00	21.00	0.00
S1	T2	193.00	243.00	243.33
S1	T3	228.67	211.00	232.00
S2	T1	0.00	0.00	0.00
S2	T2	212.67	229.67	238.00
S2	T3	177.00	163.67	164.33
S3	T1	65.67	54.00	80.33
S3	T2	223.67	200.33	306.00
S3	T3	207.67	251.33	198.33
S4	T1	183.00	163.00	119.33
S4	T2	209.33	184.67	248.67
S4	T3	235.33	194.33	252.00
S5	T1	150.33	180.33	215.33
S5	T2	246.33	193.33	206.67
S5	T3	233.33	304.33	211.33

ST MEANS

	1	2	3
S1	7.00Aa	226.44Ab	223.69 Bb
2	0.00Aa	226.78Ab	168.33 Ac
3	66.67Ba	243.33Ab	219.11 Bb
4	155.11Ca	214.22Ab	227.22 Bb
5	182.00Ca	215.44Aab	249.67 Bb

APPENDIX 5: SEED NUMBER PER PRIMARY HEAD = SNP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	42.000	36.000	32.000
S1	T3	51.000	41.667	51.333
S2	T1	7.667	18.000	11.333
S2	T2	33.333	48.667	45.333
S2	T3	51.667	47.000	48.333
S3	T1	42.333	49.667	43.333
S3	T2	53.333	56.000	47.000
S3	T3	49.667	49.000	50.000

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	0.000 Aa	36.667 Ab	48.000 Ac
2	12.333 Ba	42.444 Ab	49.000 Ab
3	45.111 Ca	52.111 Ba	49.556 Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	32.000	46.000	44.333
S1	T3	40.667	49.000	43.333
S2	T1	1.000	8.333	1.000
S2	T2	47.333	43.667	46.667
S2	T3	48.000	48.333	38.667
S3	T1	28.667	38.000	24.667
S3	T2	52.333	57.333	56.000
S3	T3	54.000	50.333	56.333
S4	T1	56.667	48.333	43.000
S4	T2	51.000	48.000	56.667
S4	T3	49.667	51.667	51.333
S5	T1	53.333	50.333	50.000
S5	T2	50.333	49.333	51.667
S5	T3	52.333	56.667	56.667

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	0.000 Aa	40.778 Ab	44.333 Ab
2	3.444 Aa	45.889 ABb	45.000 Ab
3	30.444 Ba	55.222 Cb	53.556 Bb
4	49.333 Ca	51.889 BCa	50.889 ABa
5	51.222 Ca	50.444 BCa	55.222 Ba

APPENDIX 5: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	9.667
S1	T2	41.667	53.000	46.333
S1	T3	51.000	46.667	47.000
S2	T1	0.000	7.000	2.667
S2	T2	37.333	47.333	45.333
S2	T3	48.333	50.333	49.333
S3	T1	43.000	31.333	25.667
S3	T2	49.333	55.333	48.000
S3	T3	54.000	50.000	54.667
S4	T1	47.667	50.667	53.667
S4	T2	54.000	48.000	50.000
S4	T3	44.000	49.000	56.667
S5	T1	41.333	46.667	53.000
S5	T2	53.000	50.000	45.667
S5	T3	57.000	46.667	51.000

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	3.222 Aa	47.000 Ab	48.222 Ab
2	3.222 Aa	43.333 Ab	49.333 Ab
3	33.333 Ba	50.889 Ab	52.889 Ab
4	50.667 Ca	50.667 Aa	49.889 Aa
5	47.000 Ca	49.556 Aa	51.556 Aa

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	47.000	53.000	45.000
S1	T3	48.333	44.667	48.333
S2	T1	4.667	2.000	11.000
S2	T2	47.667	52.000	52.333
S2	T3	45.667	49.333	50.333
S3	T1	44.000	38.333	38.333
S3	T2	42.000	49.667	55.667
S3	T3	46.667	52.333	53.000
S4	T1	53.667	52.333	54.000
S4	T2	52.000	50.000	51.000
S4	T3	53.667	51.667	54.333
S5	T1	52.333	50.667	55.333
S5	T2	56.333	50.333	56.667
S5	T3	56.333	51.000	38.667

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	0.000 Aa	48.333 Ab	47.111 Ab
2	5.889 Aa	50.667 Ab	48.444 Ab
3	40.222 Ba	49.111 Ab	50.667 Ab
4	53.333 Ca	51.000 Aa	53.222 Aa
5	52.778 Ca	54.444 Aa	48.667 Aa

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	51.667	52.000	34.000
S1	T3	51.667	44.667	47.333
S2	T1	0.000	0.000	9.000
S2	T2	51.000	47.333	42.667
S2	T3	50.000	47.000	44.000
S3	T1	41.000	38.000	27.333
S3	T2	53.333	55.667	57.667
S3	T3	49.333	50.667	46.000
S4	T1	53.667	55.667	48.667
S4	T2	56.000	53.333	50.333
S4	T3	44.333	46.000	54.667
S5	T1	54.333	46.333	49.000
S5	T2	52.333	48.000	48.667
S5	T3	48.000	59.333	53.667

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	0.000 Aa	45.889 Ab	47.889 Ab
2	3.000 Aa	47.000 Ab	47.000 Ab
3	35.444 Ba	55.556 Bb	48.667 Ab
4	52.667 Ca	53.222 Aa	48.333 Aa
5	49.889 Ca	49.667 Aa	53.667 Aa

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	46.667	39.000	45.667
S1	T3	51.333	50.333	44.000
S2	T1	0.000	0.000	0.000
S2	T2	46.333	52.333	50.333
S2	T3	42.333	45.667	44.000
S3	T1	40.000	32.333	47.000
S3	T2	56.333	47.667	54.667
S3	T3	55.667	54.333	49.333
S4	T1	55.333	49.333	47.000
S4	T2	50.000	48.667	49.333
S4	T3	54.667	48.667	54.000
S5	T1	31.333	54.333	50.000
S5	T2	51.000	49.000	52.000
S5	T3	51.000	54.333	42.333

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNP

ST MEANS

	1	2	3
S1	0.000 Aa	43.778 Ab	48.556 ABb
2	0.000 Aa	49.667 ABb	44.000 Ab
3	39.778 Ba	52.889 Bb	53.111 Bb
4	50.556 Ba	49.333 ABa	52.444 ABa
5	45.222 Ca	50.667 ABa	49.222 ABa

APPENDIX 6: SEED NUMBER PER SECONDARY HEAD = SNPS

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA
====

S1	T1	0.0000	0.0000	0.0000
S1	T2	14.9231	7.9167	4.6000
S1	T3	12.1667	8.9091	16.3846
S2	T1	0.0000	0.0000	0.0000
S2	T2	12.3125	13.2308	11.5714
S2	T3	6.0667	18.2857	12.2500
S3	T1	3.1000	3.5000	1.9167
S3	T2	14.3333	15.4667	8.6154
S3	T3	15.2727	18.5455	11.7333

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNPS

ST MEANS
========

	1	2	3
S1	0.0000 Aa	9.1466 Ab	12.4868 Ab
2	0.0000 Aa	12.3716 Ab	12.2008 Ab
3	2.8389 Aa	12.8051 Ab	15.1838 Ab

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA
====

S1	T1	0.000	0.000	0.000
S1	T2	23.417	28.000	28.800
S1	T3	28.759	33.250	29.700
S2	T1	0.000	0.000	0.000
S2	T2	32.571	29.182	32.250
S2	T3	38.615	30.786	26.077
S3	T1	2.000	2.500	2.200
S3	T2	36.833	23.813	37.200
S3	T3	36.692	27.400	32.143
S4	T1	22.056	27.714	23.867
S4	T2	23.111	26.333	34.929
S4	T3	26.933	32.273	36.167
S5	T1	28.846	29.000	27.700
S5	T2	39.933	26.167	31.385
S5	T3	32.357	32.500	33.467

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNPS

ST MEANS
========

	1	2	3
S1	0.000Aa	26.739 Ab	30.573 Ab
2	0.000Aa	31.334 Ab	31.826 Ab
3	2.233Aa	32.615 Ab	32.078 Ab
4	24.546Ba	28.124 Ab	31.791 Ab
5	28.515Ba	32.495 Aa	32.775 Aa

APPENDIX 6: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA
====

S1	T1	0.000	0.000	0.000
S1	T2	32.667	24.333	37.188
S1	T3	38.500	33.846	30.182
S2	T1	0.000	0.000	0.000
S2	T2	56.727	31.632	37.071
S2	T3	34.583	32.529	38.500
S3	T1	0.000	8.455	0.000
S3	T2	35.167	39.462	29.769
S3	T3	34.313	39.867	38.833
S4	T1	12.273	28.769	24.800
S4	T2	46.100	29.000	35.429
S4	T3	32.692	37.333	36.357
S5	T1	26.750	29.250	25.200
S5	T2	31.083	44.800	30.400
S5	T3	41.000	36.077	36.462

ST MEANS
========

	1	2	3
S1	0.000 Aa	31.396 Ab	34.176 Ab
2	0.000 Aa	41.810 Ab	35.204 Ab
3	2.818 Aa	34.799 Ab	37.671 Ab
4	21.947 Ba	36.843 Ab	35.461 Ab
5	27.067 Ba	35.428 AAb	37.846 Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA
====

S1	T1	0.000	0.000	0.000
S1	T2	35.917	30.000	31.929
S1	T3	33.882	26.333	36.214
S2	T1	0.000	0.000	0.867
S2	T2	37.765	37.667	38.000
S2	T3	31.583	34.250	36.056
S3	T1	0.000	2.813	4.167
S3	T2	32.692	42.188	37.786
S3	T3	34.615	34.615	38.643
S4	T1	29.467	28.810	30.824
S4	T2	38.857	35.700	35.875
S4	T3	41.235	37.769	36.231
S5	T1	27.063	30.733	32.533
S5	T2	34.714	36.000	40.556
S5	T3	41.063	35.438	34.429

ST MEANS
========

	1	2	3
S1	0.000 Aa	32.615 Ab	32.810 Ab
2	0.289 Aa	37.810 Bb	33.963 ABb
3	2.326 Aa	37.555 Bb	35.958 ABb
4	29.700 Ba	36.811 ABb	38.412 Bb
5	30.110 Ba	37.090 ABb	36.976 ABb

APPENDIX 6: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA

S1	T1	0.000	0.231	0.000
S1	T2	40.600	33.938	29.231
S1	T3	31.929	35.583	33.923
S2	T1	0.000	1.214	0.000
S2	T2	38.273	33.467	28.583
S2	T3	39.000	28.733	27.909
S3	T1	1.769	5.133	1.231
S3	T2	37.467	39.688	42.125
S3	T3	37.824	35.533	38.545
S4	T1	23.818	24.692	17.786
S4	T2	38.933	38.933	34.000
S4	T3	28.267	30.200	37.583
S5	T1	35.000	26.636	40.769
S5	T2	35.333	27.909	35.786
S5	T3	31.929	8.071	28.579

ST MEANS

	1	2	3
S1	0.077 Aa	34.589 Ab	33.812 Ab
2	0.405 Aa	33.441 Ab	31.861 Ab
3	2.711 Aa	39.760 Ab	37.301 Ab
4	22.099 Ba	37.239 Ab	32.017 Ab
5	34.135 Cb	33.009 Ab	22.800 Ba

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNPS

DATA

S1	T1	0.000	7.000	0.000
S1	T2	36.583	36.000	32.944
S1	T3	40.923	40.167	31.333
S2	T1	0.000	0.000	0.000
S2	T2	33.267	35.467	35.188
S2	T3	31.077	29.500	32.818
S3	T1	5.133	5.000	7.692
S3	T2	38.615	30.533	39.684
S3	T3	35.077	36.938	34.365
S4	T1	31.917	31.000	27.125
S4	T2	39.833	40.800	35.176
S4	T3	36.133	33.615	37.125
S5	T1	27.462	25.200	41.333
S5	T2	34.471	36.063	30.933
S5	T3	34.188	37.500	36.214

ST MEANS

	1	2	3
S1	2.333 Aa	35.176 Ab	37.474 Ab
2	0.000 Aa	34.640 Ab	31.132 Ab
3	5.942 Aa	36.278 Ab	35.466 Ab
4	30.014 Ba	38.603 Ab	35.625 AAb
5	31.332 Ba	33.829 Aa	35.967 Aa

APPENDIX 7: PERCENTAGE GERMINATION OF SEEDS FROM PRIMARY HEADS = PNG

DATA

HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.00000	0.00000	0.00000
S1	T2	3.00000	0.00000	0.00000
S1	T3	0.00000	0.00000	0.00000
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.00000	0.00000	0.00000
S2	T3	0.00000	0.00000	0.00000
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.00000	0.00000	0.00000
S3	T3	0.00000	0.00000	0.00000

ST MEANS

	1		2		3	
S1	0.00000	Aa	1.00000	Aa	0.00000	Aa
2	0.00000	Aa	0.00000	Aa	0.00000	Aa
3	0.00000	Aa	0.00000	Aa	0.00000	Aa

DATA

HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.000	0.000	0.000
S1	T2	53.000	38.000	45.000
S1	T3	40.000	28.000	55.000
S2	T1	0.000	0.000	0.000
S2	T2	54.000	35.000	44.000
S2	T3	46.000	38.000	22.000
S3	T1	0.000	0.000	0.000
S3	T2	34.000	39.000	50.000
S3	T3	70.000	64.000	77.000
S4	T1	0.000	0.000	0.000
S4	T2	61.000	50.000	51.000
S4	T3	46.000	45.000	73.000
S5	T1	0.000	0.000	0.000
S5	T2	31.000	46.000	48.000
S5	T3	45.000	31.000	41.000

ST MEANS

	1		2		3	
S1	0.000	Aa	45.333	Ab	41.000	ABb
2	0.000	Aa	44.333	Ab	35.333	Ab
3	0.000	Aa	41.000	Ab	70.333	Bb
4	0.000	Aa	54.000	Ab	54.667	Cb
5	0.000	Aa	41.667	Ab	39.000	Ab

APPENDIX 7: CONTINUED

DATA HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.000	0.000	0.000
S1	T2	95.000	98.000	97.000
S1	T3	100.000	98.000	96.000
S2	T1	0.000	0.000	0.000
S2	T2	91.000	97.000	96.000
S2	T3	99.000	95.000	98.000
S3	T1	0.000	0.000	0.000
S3	T2	100.000	100.000	97.000
S3	T3	100.000	97.000	96.000
S4	T1	0.000	0.000	0.000
S4	T2	96.000	99.000	84.000
S4	T3	95.000	100.000	97.000
S5	T1	0.000	0.000	0.000
S5	T2	96.000	96.000	94.000
S5	T3	96.000	96.000	97.000

ST MEANS

	1	2	3
S1	0.000 Aa	96.667 Ab	98.000 Ab
2	0.000 Aa	94.667 Ab	97.333 Ab
3	0.000 Aa	99.000 Bb	97.667 Ab
4	0.000 Aa	93.000 Ab	97.333 Ac
5	0.000 Aa	95.333 Ab	96.333 Ab

DATA HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.000	0.000	0.000
S1	T2	100.000	100.000	100.000
S1	T3	100.000	99.000	97.000
S2	T1	0.000	0.000	0.000
S2	T2	97.000	98.000	98.000
S2	T3	99.000	97.000	99.000
S3	T1	0.000	0.000	0.000
S3	T2	100.000	97.000	98.000
S3	T3	100.000	99.000	99.000
S4	T1	0.000	0.000	0.000
S4	T2	98.000	98.000	78.000
S4	T3	98.000	98.000	100.000
S5	T1	0.000	0.000	0.000
S5	T2	95.000	98.000	96.000
S5	T3	98.000	97.000	98.000

ST MEANS

	1	2	3
S1	0.000 Aa	100.000 Bb	98.667 Ab
2	0.000 Aa	97.667 Bb	98.333 Ab
3	0.000 Aa	98.333 Bb	99.333 Ab
4	0.000 Aa	91.333 Ab	98.667 ACb
5	0.000 Aa	96.333 ABb	97.667 Ab

APPENDIX 7: CONTINUED

DATA

HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.000	0.000	0.000
S1	T2	95.000	95.000	93.000
S1	T3	98.000	66.000	98.000
S2	T1	0.000	0.000	0.000
S2	T2	89.000	98.000	92.000
S2	T3	97.000	98.000	96.000
S3	T1	0.000	0.000	0.000
S3	T2	82.000	98.000	91.000
S3	T3	96.000	99.000	99.000
S4	T1	0.000	0.000	0.000
S4	T2	93.000	97.000	94.000
S4	T3	98.000	97.000	97.000
S5	T1	0.000	0.000	0.000
S5	T2	95.000	97.000	97.000
S5	T3	96.000	97.000	97.000

ST MEANS

	1	2	3
S1	0.000 Aa	94.333 Ab	94.000 Ab
2	0.000 Aa	93.000 Ab	97.000 Ab
3	0.000 Aa	90.333 Ab	98.000 Ab
4	0.000 Aa	94.667 Ab	97.333 Ab
5	0.000 Aa	96.333 Bb	96.667 Ab

DATA

HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : PNG

S1	T1	0.000	0.000	0.000
S1	T2	97.000	99.000	95.000
S1	T3	99.000	79.000	95.000
S2	T1	0.000	0.000	0.000
S2	T2	100.000	92.000	97.000
S2	T3	100.000	97.000	100.000
S3	T1	0.000	0.000	0.000
S3	T2	96.000	97.000	96.000
S3	T3	97.000	100.000	100.000
S4	T1	0.000	0.000	0.000
S4	T2	98.000	97.000	99.000
S4	T3	100.000	67.000	98.000
S5	T1	0.000	0.000	0.000
S5	T2	97.000	99.000	90.000
S5	T3	98.000	96.000	100.000

ST MEANS

	1	2	3
S1	0.000 Aa	97.000 Ab	91.000 Ab
2	0.000 Aa	96.333 Ab	99.000 Ab
3	0.000 Aa	96.333 Ab	99.000 Ab
4	0.000 Aa	98.000 Ab	88.333 Ab
5	0.000 Aa	95.333 Ab	98.000 Ab

APPENDIX 8: PERCENTAGE GERMINATION OF SEEDS FROM SECONDARY HEADS = SNG

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.00000	0.00000	0.00000
S1	T3	3.00000	0.00000	0.00000
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.00000	0.00000	0.00000
S2	T3	0.00000	0.00000	0.00000
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.00000	0.00000	0.00000
S3	T3	0.00000	0.00000	0.00000

ST MEANS SNG

	1	2	3
S1	0.00000 Aa	0.00000 Aa	1.00000 Aa
2	0.00000 Aa	0.00000 Aa	0.00000 Aa
3	0.00000 Aa	0.00000 Aa	0.00000 Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA

S1	T1	0.000	0.000	0.000
S1	T2	24.000	36.000	18.000
S1	T3	18.000	40.000	41.000
S2	T1	0.000	0.000	0.000
S2	T2	19.000	17.000	15.000
S2	T3	39.000	27.000	16.000
S3	T1	0.000	0.000	0.000
S3	T2	26.000	25.000	17.000
S3	T3	27.000	11.000	18.000
S4	T1	0.000	0.000	0.000
S4	T2	26.000	20.000	20.000
S4	T3	36.000	22.000	50.000
S5	T1	0.000	0.000	0.000
S5	T2	22.000	20.000	35.000
S5	T3	30.000	42.000	25.000

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : SNG

ST MEANS

	1	2	3
S1	0.000 Aa	26.000 Ab	33.000 Bb
2	0.000 Aa	17.000 Ab	27.333 ABb
3	0.000 Aa	22.667 Ab	18.667 Ab
4	0.000 Aa	22.000 Ab	36.000 Bb
5	0.000 Aa	25.667 Ab	32.333 Bb

APPENDIX 8: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA
====

S1	T1	0.000	0.000	0.000
S1	T2	89.000	87.000	86.000
S1	T3	73.000	88.000	70.000
S2	T1	0.000	0.000	0.000
S2	T2	78.000	75.000	80.000
S2	T3	68.000	71.000	76.000
S3	T1	0.000	0.000	0.000
S3	T2	85.000	95.000	65.000
S3	T3	77.000	65.000	63.000
S4	T1	0.000	0.000	0.000
S4	T2	80.000	68.000	86.000
S4	T3	82.000	70.000	87.000
S5	T1	0.000	0.000	0.000
S5	T2	44.000	55.000	50.000
S5	T3	69.000	60.000	50.000

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : SNG

ST MEANS
========

	1	2	3
S1	0.000 Aa	87.333 Ab	77.000 Ab
2	0.000 Aa	77.667 Ab	71.667 Ab
3	0.000 Aa	81.667 Ab	61.667 Ab
4	0.000 Aa	78.000 Ab	79.667 Ab
5	0.000 Aa	49.667 Bb	59.667 Bb

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA
====

S1	T1	0.000	0.000	0.000
S1	T2	98.000	98.000	96.000
S1	T3	86.000	95.000	99.000
S2	T1	0.000	0.000	0.000
S2	T2	100.000	94.000	93.000
S2	T3	98.000	95.000	94.000
S3	T1	0.000	0.000	0.000
S3	T2	97.000	81.000	86.000
S3	T3	97.000	92.000	90.000
S4	T1	0.000	0.000	0.000
S4	T2	96.000	96.000	90.000
S4	T3	97.000	97.000	98.000
S5	T1	0.000	0.000	0.000
S5	T2	95.000	90.000	94.000
S5	T3	95.000	90.000	88.000

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : SNG

ST MEANS
========

	1	2	3
S1	0.000Aa	96.667 Bb	93.333 Ab
2	0.000Aa	95.667 Bb	95.667 Ab
3	0.000Aa	88.000 Ab	93.000 Ab
4	0.000Aa	94.000 ABb	97.333 Ab
5	0.000Aa	93.000 ABb	91.000 Ab

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA

S1	T1	0.000	0.000	0.000
S1	T2	95.000	96.000	98.000
S1	T3	97.000	99.000	99.000
S2	T1	0.000	0.000	0.000
S2	T2	96.000	98.000	98.000
S2	T3	98.000	98.000	97.000
S3	T1	0.000	0.000	0.000
S3	T2	98.000	99.000	98.000
S3	T3	98.000	95.000	97.000
S4	T1	0.000	0.000	0.000
S4	T2	99.000	99.000	98.000
S4	T3	97.000	97.000	100.000
S5	T1	0.000	0.000	0.000
S5	T2	97.000	98.000	99.000
S5	T3	98.000	99.000	99.000

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : SNG

ST MEANS

	1	2	3
S1	0.000 Aa	96.333 Ab	98.333 Bb
2	0.000 Aa	97.333 ABb	97.667 Ab
3	0.000 Aa	98.333 Bb	96.667 Ab
4	0.000 Aa	98.667 Bb	98.000 Ab
5	0.000 Aa	98.000 Bb	98.667 Bb

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNG

DATA

S1	T1	0.000	100.000	0.000
S1	T2	98.000	97.000	98.000
S1	T3	90.000	99.000	98.000
S2	T1	0.000	0.000	0.000
S2	T2	99.000	96.000	97.000
S2	T3	98.000	99.000	99.000
S3	T1	0.000	0.000	0.000
S3	T2	96.000	99.000	98.000
S3	T3	95.000	99.000	97.000
S4	T1	0.000	0.000	0.000
S4	T2	96.000	94.000	100.000
S4	T3	99.000	88.000	67.000
S5	T1	0.000	0.000	0.000
S5	T2	100.000	99.000	97.000
S5	T3	100.000	99.000	99.000

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : SNG

ST MEANS

	1	2	3
S1	33.333 Ba	97.667 Ab	95.667 Ab
2	0.000 Aa	97.333 Ab	98.667 Ab
3	0.000 Aa	97.667 Ab	97.000 Ab
4	0.000 Aa	96.667 Ab	91.333 Ab
5	0.000 Aa	98.667 Ab	99.333 Ab

APPENDIX 9: TOTAL SEED YIELD PER PLANT IN GRAMS = TYP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA
====

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.132000	0.087000	0.060667
S1	T3	0.162333	0.088000	0.159000
S2	T1	0.003333	0.010333	0.004667
S2	T2	0.072667	0.171333	0.081000
S2	T3	0.067333	0.090667	0.047000
S3	T1	0.037000	0.039667	0.031667
S3	T2	0.108333	0.164333	0.101667
S3	T3	0.131667	0.154333	0.134000

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : TYP

ST MEANS
========

	1	2	3
S1	0.000000 Aa	0.093222 Ab	0.136444 Bb
2	0.006111 Aa	0.108333 Ab	0.068333 Ab
3	0.036111 Aa	0.124778 Ab	0.140000 Bb

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.45767	0.60400	0.58033
S1	T3	0.53067	0.81133	0.69000
S2	T1	0.00067	0.00267	0.00033
S2	T2	0.61733	0.40133	0.61767
S2	T3	0.88567	0.70300	0.41633
S3	T1	0.01800	0.02600	0.01533
S3	T2	0.59867	0.87200	0.71733
S3	T3	0.70600	0.63000	0.72133
S4	T1	0.32467	0.23867	0.18867
S4	T2	1.01267	0.71967	0.93467
S4	T3	0.81533	0.40767	0.99833
S5	T1	0.40300	0.45733	0.36133
S5	T2	0.73200	0.63233	0.67100
S5	T3	0.65300	0.50900	0.70567

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.54733 Ab	0.67733 Ab
2	0.00122 Aa	0.57211 Ab	0.66833 Ab
3	0.01978 Aa	0.72933 ABb	0.68578 Ab
4	0.25067 Ba	0.88900 Bb	0.74044 Ab
5	0.40722 Ba	0.67844 ABb	0.64922 Ab

APPENDIX 9: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA
====

S1	T1	0.0000	0.0000	0.0033
S1	T2	1.4550	1.5780	2.3567
S1	T3	2.0307	1.6857	1.2117
S2	T1	0.0000	0.0023	0.0010
S2	T2	2.0727	1.7877	1.5773
S2	T3	1.7780	1.8850	1.7010
S3	T1	0.0187	0.0337	0.0107
S3	T2	1.9267	2.2093	1.3767
S3	T3	2.0117	2.5553	2.5050
S4	T1	0.1240	0.1557	0.1720
S4	T2	1.8513	1.4633	2.1573
S4	T3	1.9193	2.3113	2.3837
S5	T1	0.2833	0.2707	0.3573
S5	T2	1.3277	1.6430	1.6687
S5	T3	2.3463	1.8990	1.8627

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : TYP

ST MEANS
========

	1	2	3
S1	0.0011 Aa	1.7966 Ab	1.7093 Ab
2	0.0011 Aa	1.8126 Ab	1.7860 ABb
3	0.0210 Aa	1.8376 Ab	2.3573 Cb
4	0.1506 Aa	1.8240 Ab	2.2048 BCb
5	0.3038 Aa	1.5464 Ab	2.0360 ABc

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA
====

S1	T1	0.0000	0.0000	0.0000
S1	T2	3.7610	[illegible].3583	3.7920
S1	T3	4.2237	[illegible].1247	4.2930
S2	T1	0.0017	0.0007	0.0420
S2	T2	4.5670	[illegible].4447	4.4893
S2	T3	3.3223	[illegible].5187	4.4090
S3	T1	0.0203	0.0170	0.0240
S3	T2	3.0963	[illegible].0553	3.6713
S3	T3	3.2833	[illegible].4193	3.4087
S4	T1	0.3507	0.4283	0.3917
S4	T2	5.1243	[illegible].9697	5.0790
S4	T3	6.0560	[illegible].5597	4.9700
S5	T1	0.3657	0.3860	0.3743
S5	T2	3.1773	[illegible].1113	4.7900
S5	T3	4.4903	[illegible].4890	3.2183

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : TYP

ST MEANS
========

	1	2	3
S1	0.0000 Aa	3.9704 ABb	4.2138 Bb
2	0.0148 Aa	4.5003 Bb	3.7500 ABc
3	0.0204 Aa	3.6077 Ab	3.3704 Ab
4	0.3902 Aa	5.3910 Cb	5.1952 Cb
5	0.3753 Aa	3.6929 Ab	3.7326 ABb

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA

S1	T1	0.0000	0.0337	0.0000
S1	T2	7.3257	7.5137	4.7727
S1	T3	6.2940	5.0227	5.8920
S2	T1	0.0000	0.1263	0.0027
S2	T2	4.7340	5.8463	4.0413
S2	T3	6.6797	4.7600	3.8077
S3	T1	0.0163	0.0230	0.0113
S3	T2	6.2970	7.4760	7.7687
S3	T3	7.8493	5.7103	5.1043
S4	T1	0.1540	0.1653	0.1307
S4	T2	6.8900	6.7640	6.2007
S4	T3	5.3343	6.1453	6.2510
S5	T1	0.3973	0.3280	0.4543
S5	T2	4.9933	3.6337	5.9357
S5	T3	5.0197	6.7583	7.1553

ST MEANS

	1	2	3
S1	0.0112 Aa	6.5373 Bb	5.7362 Ab
2	0.0430 Aa	4.8739 Ab	5.0824 Ab
3	0.0169 Aa	7.1806 Bb	6.2213 Ab
4	0.1500 Aa	6.6182 Bb	5.9102 Ab
5	0.3932 Aa	4.8542 Ab	6.3111 Ab

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : TYP

DATA

S1	T1	0.0000	0.7937	0.0000
S1	T2	9.1690	11.2863	11.9273
S1	T3	11.2763	10.2777	13.1053
S2	T1	0.0000	0.0000	0.0000
S2	T2	10.0500	11.1797	11.4643
S2	T3	8.8250	8.0703	8.0110
S3	T1	0.0260	0.0163	0.0260
S3	T2	10.3367	8.9917	12.8430
S3	T3	10.2690	12.5960	9.5480
S4	T1	0.1793	0.1613	0.1207
S4	T2	10.1257	8.2550	12.2893
S4	T3	11.1943	9.0187	12.3567
S5	T1	0.1197	0.1590	0.1530
S5	T2	11.4930	8.6020	8.6783
S5	T3	11.1587	14.9387	10.6340

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : TYP

ST MEANS

	1	2	3
S1	0.2646 Aa	10.7942Ab	11.5531Bb
2	0.0000 Aa	10.8980Ac	8.3021Ab
3	0.0228 Aa	10.7238Ab	10.8043Bb
4	0.1538 Aa	10.2233Ab	10.8566Bb
5	0.1439 Aa	9.6578Ab	12.2438Bc

APPENDIX 10: TOTAL SEED YIELD PER PRIMARY HEAD IN GRAMS - YPPH

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.068667	0.059333	0.041333
S1	T3	0.097667	0.060000	0.093667
S2	T1	0.003333	0.010333	0.004667
S2	T2	0.036667	0.143333	0.051667
S2	T3	0.049333	0.045000	0.017667
S3	T1	0.030667	0.035333	0.028667
S3	T2	0.046333	0.086000	0.067333
S3	T3	0.079333	0.089000	0.077000

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : YPPH

ST MEANS

	1	2	3
S1	0.000000 Aa	0.056444 Ab	0.083778 Bb
2	0.006111 Aa	0.077222 Ab	0.037333 Aa
3	0.031556 Aa	0.067222 Aab	0.081778 Bb

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.18967	0.25933	0.21333
S1	T3	0.22233	0.33800	0.32100
S2	T1	0.00067	0.00267	0.00033
S2	T2	0.25333	0.21533	0.25733
S2	T3	0.29433	0.29033	0.21000
S3	T1	0.01633	0.02133	0.01267
S3	T2	0.24767	0.33167	0.28267
S3	T3	0.28833	0.27867	0.31967
S4	T1	0.16733	0.10800	0.07300
S4	T2	0.39300	0.34900	0.40833
S4	T3	0.34767	0.34700	0.38500
S5	T1	0.21900	0.20733	0.17167
S5	T2	0.25400	0.28067	0.29833
S5	T3	0.29700	0.30600	0.30100

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : YPPH

ST MEANS

	1	2	3
S1	0.00000 Aa	0.22078 Ab	0.29378 Ac
2	0.00122 Aa	0.24200 ABb	0.26469 Ab
3	0.01678 Aa	0.28733 Bb	0.29556 Ab
4	0.11611 Ba	0.38344 Cb	0.35989 Bb
5	0.19933 Ba	0.27767 Bb	0.30133 Ab

APPENDIX 10: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.00000	0.00000	0.00333
S1	T2	0.56133	0.76267	0.62133
S1	T3	0.67667	0.61667	0.56100
S2	T1	0.00000	0.00233	0.00100
S2	T2	0.48267	0.56533	0.57000
S2	T3	0.61767	0.64967	0.58767
S3	T1	0.01867	0.02167	0.01067
S3	T2	0.69533	0.73933	0.62833
S3	T3	0.71267	0.72667	0.65333
S4	T1	0.07933	0.06667	0.09333
S4	T2	0.79233	0.58700	0.62333
S4	T3	0.60167	0.69167	0.80600
S5	T1	0.14400	0.15967	0.17867
S5	T2	0.58433	0.59900	0.53800
S5	T3	0.76000	0.60067	0.68333

ST MEANS

	1	2	3
S1	0.00111 Aa	0.65511 BCb	0.61811 Ab
2	0.00111 Aa	0.53933 Ab	0.61833 Ab
3	0.01700 Aa	0.68767 Cb	0.69756 Ab
4	0.08644 ABc	0.66756 BCb	0.69978 Ab
5	0.16078 Ba	0.57378 ABb	0.70133 Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	1.15567	1.19700	1.10100
S1	T3	1.14433	1.14200	1.14700
S2	T1	0.00167	0.00067	0.00267
S2	T2	1.11967	1.10400	1.18733
S2	T3	1.14167	1.11533	1.16533
S3	T1	0.02033	0.01333	0.01867
S3	T2	1.00633	1.05000	1.12433
S3	T3	1.00033	1.12667	1.02800
S4	T1	0.17267	0.19133	0.16900
S4	T2	1.32167	1.25900	1.33000
S4	T3	1.48200	1.35367	1.49333
S5	T1	0.18300	0.18833	0.17233
S5	T2	0.98133	0.67767	1.19167
S5	T3	1.17600	1.08500	1.13067

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : YPPH

ST MEANS

	1	2	3
S1	0.00000 Ab	1.15122 Bb	1.14444 Ab
2	0.00167 Ab	1.13700 Bb	1.14078 Ab
3	0.01744 Ab	1.06022 ABb	1.05167 Ab
4	0.17767 Bb	1.30356 Cb	1.44300 Ab
5	0.18122 Bb	0.95022 Ab	1.13056 Ab

APPENDIX 10: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	1.7890	1.8390	1.1750
S1	T3	1.8177	1.5200	1.7330
S2	T1	0.0000	0.0000	0.0027
S2	T2	1.4587	1.4833	1.2780
S2	T3	1.5983	1.3687	1.3620
S3	T1	0.0147	0.0153	0.0100
S3	T2	1.6010	1.7110	1.8163
S3	T3	1.7437	1.6333	1.5060
S4	T1	0.0883	0.0870	0.0820
S4	T2	1.7733	1.6473	1.7187
S4	T3	1.5870	1.5850	1.8940
S5	T1	0.1790	0.1780	0.2187
S5	T2	1.5910	1.4507	1.6953
S5	T3	1.5273	1.8470	1.7737

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : YPPH

ST MEANS

	1	2	3
S1	0.0000 Aa	1.6010 ABb	1.6902 ABb
2	0.0009 Aa	1.4067 Ab	1.4430 Ab
3	0.0133 Aa	1.7094 Bb	1.6277 ABb
4	0.0858 Aa	1.7131 Bb	1.6887 ABb
5	0.1919 Aa	1.5790 ABb	1.7160 Bb

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : YPPH

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	2.1157	1.6763	2.2787
S1	T3	2.6907	2.2383	2.2293
S2	T1	0.0000	0.0000	0.0000
S2	T2	2.1320	2.2573	2.4450
S2	T3	2.3923	2.1793	2.1577
S3	T1	0.0187	0.0120	0.0187
S3	T2	2.3753	1.8460	2.4440
S3	T3	2.6473	2.6263	2.3293
S4	T1	0.0897	0.0843	0.0767
S4	T2	2.4023	2.1993	2.3383
S4	T3	2.5187	2.0617	2.7033
S5	T1	0.0423	0.0863	0.0847
S5	T2	2.2620	2.2693	1.8107
S5	T3	2.4247	2.5720	2.0483

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : YPPH

ST MEANS

	1	2	3
S1	0.0000 Aa	2.0236 Ab	2.3861 Ac
2	0.0000 Aa	2.2781 Ab	2.2431 Ab
3	0.0164 Aa	2.2218 Ab	2.5343 Ab
4	0.0836 Aa	2.3133 Ab	2.4279 Ab
5	0.0711 Aa	2.1140 Ab	2.3483 Ab

APPENDIX 11: TOTAL SEED YIELD PER SECONDARY HEAD IN GRAMS = YPS

DATA HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : YPS

S1	T1	0.0000000	0.0000000	0.0000000
S1	T2	0.0146154	0.0069167	0.0038667
S1	T3	0.0107778	0.0076364	0.0150769
S2	T1	0.0000000	0.0000000	0.0000000
S2	T2	0.0067500	0.0064615	0.0062857
S2	T3	0.0036000	0.0097857	0.0073333
S3	T1	0.0019000	0.0010833	0.0007500
S3	T2	0.0124000	0.0152667	0.0079231
S3	T3	0.0142727	0.0176182	0.0114000

ST MEANS

	1	2	3	
S1	0.0000000	0.0084662	0.0111637	Ab
2	0.0000000	0.0064991	0.0069063	ABb
3	0.0012444	0.0118632	0.0144970	Bb

DATA HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : YPS

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.067000	0.094000	0.073400
S1	T3	0.071154	0.118333	0.110700
S2	T1	0.000000	0.000000	0.000000
S2	T2	0.078000	0.072545	0.090083
S2	T3	0.136462	0.088429	0.047615
S3	T1	0.000556	0.000875	0.000800
S3	T2	0.087750	0.101313	0.086933
S3	T3	0.096335	0.070267	0.086071
S4	T1	0.026222	0.028000	0.023133
S4	T2	0.103278	0.092667	0.112786
S4	T3	0.093533	0.016545	0.153333
S5	T1	0.042462	0.053571	0.056900
S5	T2	0.095600	0.087917	0.086000
S5	T3	0.076236	0.084900	0.080933

ST MEANS

	1		2		3	
S1	0.000000	Aa	0.078133	Ab	0.100062	Ab
2	0.000000	Aa	0.080210	Ab	0.090835	Ab
3	0.000744	Aa	0.091999	Ab	0.084241	Ab
4	0.025785	ABa	0.102910	Ab	0.087804	Ab
5	0.050978	Ba	0.089839	Aa	0.080706	Aa

APPENDIX 11: CONTINUED

DATA HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : YPS

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.22342	0.19883	0.32538
S1	T3	0.29014	0.29285	0.17745
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.43364	0.19300	0.21586
S2	T3	0.29008	0.21800	0.27833
S3	T1	0.00000	0.00327	0.00000
S3	T2	0.30783	0.33923	0.17269
S3	T3	0.24356	0.36573	0.30861
S4	T1	0.01218	0.01592	0.02360
S4	T2	0.31770	0.20223	0.32871
S4	T3	0.30408	0.32393	0.33807
S5	T1	0.03483	0.04163	0.03573
S5	T2	0.18583	0.31320	0.22613
S5	T3	0.33993	0.28577	0.27215

ST MEANS

	1	2	3
S1	0.00000 Aa	0.24921 Ab	0.25348 Ab
2	0.00000 Aa	0.28083 Ab	0.26214 Ab
3	0.00109 Aa	0.27325 Ab	0.30597 Ab
4	0.01723 Aa	0.28288 Ab	0.32203 Ab
5	0.03740 Aa	0.24172 Ab	0.29928 Ab

DATA HARVEST 4 ANALYSIS OF YIELD. AND GERMINATION : YPS

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.65133	0.52689	0.57664
S1	T3	0.54341	0.49711	0.67414
S2	T1	0.00000	0.00000	0.00787
S2	T2	0.60835	0.55678	0.66040
S2	T3	0.54517	0.60083	0.54061
S3	T1	0.00000	0.00069	0.00133
S3	T2	0.48231	0.56350	0.54579
S3	T3	0.52635	0.52908	0.51014
S4	T1	0.03560	0.03386	0.03929
S4	T2	0.81486	0.70660	0.70294
S4	T3	0.80718	0.73985	0.80231
S5	T1	0.03425	0.03953	0.04040
S5	T2	0.47057	0.52150	0.59972
S5	T3	0.62144	0.45075	0.44736

ST MEANS

	1	2	3
S1	0.00000 Aa	0.58496 Ab	0.57156 Ab
2	0.00262 Aa	0.60851 Ab	0.56220 Ab
3	0.00067 Aa	0.53053 Ab	0.52202 Ab
4	0.03625 Aa	0.74146 Ab	0.78311 Ab
5	0.03806 Aa	0.53060 Ab	0.50651 Ab

APPENDIX 11: CONTINUED

DATA

HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : YPS

S1	T1	0.00000	0.00777	0.00000
S1	T2	1.10733	1.06400	0.83023
S1	T3	0.95921	0.87567	0.95977
S2	T1	0.00000	0.02707	0.00000
S2	T2	0.89327	0.87260	0.69083
S2	T3	1.01627	0.67827	0.66700
S3	T1	0.00038	0.00153	0.00031
S3	T2	0.93920	1.06094	1.11606
S3	T3	1.07747	0.81540	0.98136
S4	T1	0.01791	0.01808	0.01043
S4	T2	1.02333	1.02333	0.89640
S4	T3	0.74947	0.91207	1.08925
S5	T1	0.04679	0.04091	0.05438
S5	T2	0.85058	0.59536	0.90864
S5	T3	0.74836	1.05243	0.84974

ST MEANS

	1	2	3
S1	0.00259 Aa	1.00052 BCb	0.93155 Ab
2	0.00902 Aa	0.81890 ABb	0.78718 Ab
3	0.00074 Aa	1.04540 ABCb	0.95808 Ab
4	0.01547 Aa	0.98102 Ca	0.91693 Ab
5	0.04736 Aa	0.78486 Aa	0.88351 Ab

DATA

HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : YPS

S1	T1	0.0000	0.2646	0.0000
S1	T2	1.7633	1.6959	1.6061
S1	T3	1.9813	2.0098	1.8127
S2	T1	0.0000	0.0000	0.0000
S2	T2	1.5836	1.7345	1.6911
S2	T3	1.4845	1.4728	1.5964
S3	T1	0.0015	0.0010	0.0017
S3	T2	1.6372	1.4291	1.6419
S3	T3	1.7588	1.6693	1.6658
S4	T1	0.0224	0.0210	0.0165
S4	T2	1.9308	1.6167	1.7561
S4	T3	1.7351	1.6055	1.8100
S5	T1	0.0178	0.0145	0.0171
S5	T2	1.6290	1.6332	1.3735
S5	T3	1.6376	1.8550	1.8398

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : YPS

ST MEANS

	1	2	3
S1	0.0882 Aa	1.6891 ABb	1.9346 Cc
2	0.0000 Aa	1.6804 ABb	1.5179 Ab
3	0.0014 Aa	1.6361 Ab	1.7647 BCb
4	0.0200 Aa	1.8345 Bb	1.7169 Bb
5	0.0165 Aa	1.5452 Ab	1.7775 BCc

APPENDIX 12: PERCENTAGE CONTRIBUTION OF SEEDS FROM PRIMARY HEAD TO SEED YIELD PER PLANT = PERP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	51.629	67.424	67.027
S1	T3	59.796	67.416	58.542
S2	T1	76.923	91.176	82.353
S2	T2	49.774	83.172	63.008
S2	T3	72.195	49.091	36.806
S3	T1	80.702	86.885	87.755
S3	T2	42.378	53.226	65.584
S3	T3	59.799	57.296	57.037

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : PERP

ST MEANS

	1	2	3
S1	0.000Aa	62.027Bb	61.918 Bb
2	83.484Ab	65.318Aa	52.697 Aa
3	85.114Ab	53.729Aa	58.044 Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	41.352	42.865	36.697
S1	T3	41.818	41.609	46.454
S2	T1	40.000	72.727	25.000
S2	T2	40.970	44.644	41.595
S2	T3	33.195	41.241	50.319
S3	T1	85.965	79.012	77.551
S3	T2	41.301	37.992	39.350
S3	T3	40.783	44.163	44.255
S4	T1	51.382	45.063	38.489
S4	T2	38.770	48.427	43.641
S4	T3	42.589	84.910	38.526
S5	T1	54.208	45.236	47.378
S5	T2	34.652	44.316	44.395
S5	T3	45.413	51.864	42.594

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : PERP

ST MEANS

	1	2	3
S1	0.000Aa	40.305Ab	43.294Ab
2	45.909Ba	42.403Aa	41.565Aa
3	80.843Ca	39.548Aa	43.067Ab
4	44.978Ba	43.613Aa	55.342Aa
5	48.941Ba	41.121Aa	46.624Aa

APPENDIX 12: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	76.923
S1	T2	38.553	49.567	26.354
S1	T3	33.306	32.686	46.262
S2	T1	0.000	70.000	50.000
S2	T2	23.276	31.606	36.114
S2	T3	34.720	34.447	34.528
S3	T1	94.915	62.500	91.429
S3	T2	36.071	33.449	45.609
S3	T3	35.409	28.426	26.071
S4	T1	63.467	55.319	53.950
S4	T2	42.775	40.087	28.880
S4	T3	31.331	29.912	33.799
S5	T1	50.645	58.773	49.860
S5	T2	43.979	36.436	32.222
S5	T3	32.377	34.772	36.666

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : PERP

ST MEANS

	1	2	3
S1	25.641 Aa	38.158 Aa	37.418 Aa
2	40.000 ABa	30.332 Aa	34.565 Aa
3	82.948 Cb	38.376 Aa	29.969 Aa
4	57.579 BCa	37.247 Aa	31.681 Aa
5	53.093 ABa	37.545 Aa	34.605 Aa

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	30.719	27.458	29.027
S1	T3	27.087	27.680	26.712
S2	T1	62.500	40.000	6.202
S2	T2	24.511	24.833	26.442
S2	T3	34.353	31.689	26.425
S3	T1	95.313	74.074	74.667
S3	T2	32.490	25.885	30.616
S3	T3	30.438	32.940	30.150
S4	T1	49.100	44.565	43.039
S4	T2	25.787	21.086	26.181
S4	T3	24.468	29.681	30.041
S5	T1	49.909	48.665	45.915
S5	T2	30.876	21.774	24.873
S5	T3	26.184	31.089	35.121

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : PERP

ST MEANS

	1	2	3
S1	0.000 Aa	29.068 Ab	27.160 Ab
2	36.234 Ba	25.262 Aa	30.822 Aa
3	81.351 Cb	29.604 Aa	31.183 Aa
4	45.568 Bb	24.351 Aa	28.063 Aa
5	48.163 Bb	25.841 Aa	30.798 Aa

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	24.418	24.472	24.614
S1	T3	28.875	30.257	29.408
S2	T1	0.000	0.000	72.727
S2	T2	30.806	25.368	31.615
S2	T3	23.925	28.747	35.761
S3	T1	84.615	63.889	81.081
S3	T2	25.421	22.864	23.377
S3	T3	22.211	28.598	29.499
S4	T1	56.989	52.305	62.278
S4	T2	25.734	24.351	27.713
S4	T3	29.745	25.788	30.294
S5	T1	44.937	54.103	48.023
S5	T2	31.856	39.912	28.557
S5	T3	30.421	27.325	24.785

ST MEANS

	1	2	3
S1	0.000 Aa	24.501Ab	29.513Ab
2	24.242 Aa	29.263Aa	29.478Aa
3	76.523 Cb	23.894Aa	26.769Aa
4	57.191 BCb	25.933Aa	28.609Aa
5	49.021 Bb	33.442Aa	27.510Aa

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : PERP

DATA

S1	T1	0.000	0.000	0.000
S1	T2	23.072	14.851	19.103
S1	T3	23.859	21.776	17.010
S2	T1	0.000	0.000	0.000
S2	T2	21.212	20.190	21.325
S2	T3	27.106	27.001	26.930
S3	T1	69.136	69.231	69.136
S3	T2	22.977	20.528	19.028
S3	T3	25.777	20.849	24.393
S4	T1	49.723	51.951	63.014
S4	T2	23.723	26.639	19.026
S4	T3	22.497	22.857	21.876
S5	T1	35.083	53.958	54.978
S5	T2	19.680	25.779	20.862
S5	T3	21.727	17.216	19.260

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : PERP

ST MEANS

	1	2	3
S1	0.000 Aa	19.009 Ab	20.862 ABb
2	0.000 Aa	20.909 Ab	27.012 Bb
3	69.167 Bb	20.845 Aa	23.673 ABa
4	54.896 Cb	23.129 Aa	22.410 ABa
5	48.007 Db	22.107 Aa	19.401 Aa

APPENDIX 13: TOTAL VIABLE SEED YIELD PER PLANT IN GRAMS = TVYP

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA
====

S1	T1	.00000000	.00000000	.00000000
S1	T2	.00206000	.00000000	.00000000
S1	T3	.00194000	.00000000	.00000000
S2	T1	.00000000	.00000000	.00000000
S2	T2	.00000000	.00000000	.00000000
S2	T3	.00000000	.00000000	.00000000
S3	T1	.00000000	.00000000	.00000000
S3	T2	.00000000	.00000000	.00000000
S3	T3	.00000000	.00000000	.00000000

ST MEANS
========

	1	2	3
S1	.00000000Aa	.00068667Aa	.00064667Aa
2	.00000000Aa	.00000000Aa	.00000000Aa
3	.00000000Aa	.00000000Aa	.00000000Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.16484	0.22263	0.16206
S1	T3	0.14443	0.26397	0.32784
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.20596	0.12059	0.16728
S2	T3	0.36601	0.22175	0.07921
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.17547	0.26443	0.21523
S3	T3	0.31460	0.21699	0.31844
S4	T1	0.00000	0.00000	0.00000
S4	T2	0.40084	0.24863	0.31352
S4	T3	0.32829	0.16950	0.58772
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.18390	0.19944	0.27363
S5	T3	0.24045	0.21372	0.22458

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : TVYP

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.18318 ABb	0.25208 Ab
2	0.00000 Aa	0.16461 Ab	0.22232 Ab
3	0.00000 Aa	0.21838 ABb	0.28335 Ab
4	0.00000 Aa	0.32100 Bb	0.36183 Ab
5	0.00000 Aa	0.21899 ABb	0.22625 Ab

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	1.3286	1.4590	2.0951
S1	T3	1.6651	1.7211	0.9940
S2	T1	0.0000	0.0000	0.0000
S2	T2	1.6794	1.4651	1.3531
S2	T3	1.4005	1.4943	1.4220
S3	T1	0.0000	0.0000	0.0000
S3	T2	1.7420	2.1358	1.0959
S3	T3	1.7129	2.2592	2.1641
S4	T1	0.0000	0.0000	0.0000
S4	T2	1.6078	1.1770	1.8428
S4	T3	1.6521	1.8254	2.1544
S5	T1	0.0000	0.0000	0.0000
S5	T2	0.8880	1.1492	1.0711
S5	T3	1.8242	1.3772	1.2525

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : TVYP

ST MEANS

	1	2	3
S1	0.0000 Aa	1.6276 Ab	1.4601 Ab
2	0.0000 Aa	1.4992 Ab	1.4389 Ab
3	0.0000 Aa	1.6579 Ab	2.0454 Bb
4	0.0000 Aa	1.5426 Ab	1.8773 ABb
5	0.0000 Aa	1.0361 Bb	1.4846 Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	3.7089	4.2319	3.6844
S1	T3	3.7926	3.9641	4.2271
S2	T1	0.0000	0.0000	0.0000
S2	T2	4.5334	4.2221	4.2344
S2	T3	3.2673	3.3650	4.2027
S3	T1	0.0000	0.0000	0.0000
S3	T2	3.0336	3.4528	3.2923
S3	T3	3.2148	3.2247	3.1603
S4	T1	0.0000	0.0000	0.0000
S4	T2	4.9458	5.7561	4.4115
S4	T3	5.8891	4.4364	4.9005
S5	T1	0.0000	0.0000	0.0000
S5	T2	3.0185	2.8544	4.5264
S5	T3	4.3011	3.2161	2.9452

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : TVYP

ST MEANS

	1	2	3
S1	0.0000Aa	3.8750 ABb	3.9946 Bb
2	0.0000Aa	4.3300 BCb	3.6117 ABb
3	0.0000Aa	3.2596 Ab	3.1999 Ab
4	0.0000Aa	5.0378 Cb	5.0753 Cb
5	0.0000Aa	3.4664 Ab	3.4874 ABb

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA
====

S1	T1	0.0000	0.0000	0.0000
S1	T2	6.9594	7.1947	4.6185
S1	T3	6.1234	4.7748	5.8158
S2	T1	0.0000	0.0000	0.0000
S2	T2	4.4425	5.7294	3.8838
S2	T3	6.5301	4.6648	3.6798
S3	T1	0.0000	0.0000	0.0000
S3	T2	5.9149	7.3841	7.4662
S3	T3	7.6575	5.4902	4.9813
S4	T1	0.0000	0.0000	0.0000
S4	T2	6.7147	6.6634	6.0079
S4	T3	5.1902	5.9610	6.1942
S5	T1	0.0000	0.0000	0.0000
S5	T2	4.8117	3.5465	5.8424
S5	T3	4.6887	6.6538	7.0483

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : TVYP

ST MEANS
========

	1	2	3
S1	0.0000 Aa	6.2575 Ab	5.5713 Ab
2	0.0000 Aa	4.6853 Bb	4.9582 Ab
3	0.0000 Aa	6.9284 Ab	6.0430 Ab
4	0.0000 Aa	6.4620 Ab	5.7818 Ab
5	0.0000 Aa	4.7335 Bb	6.1969 Ac

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : TVYP

DATA
====

S1	T1	0.0000	0.7937	0.0000
S1	T2	8.9645	10.9813	11.6204
S1	T3	10.3909	9.7272	12.7763
S2	T1	0.0000	0.0000	0.0000
S2	T2	9.9708	10.6422	11.1204
S2	T3	8.6963	7.9460	7.9525
S3	T1	0.0000	0.0000	0.0000
S3	T2	9.9232	6.6648	12.5373
S3	T3	9.8085	12.4963	9.3314
S4	T1	0.0000	0.0000	0.0000
S4	T2	9.7687	7.6257	12.2659
S4	T3	11.1076	7.5035	11.0477
S5	T1	0.0000	0.0000	0.0000
S5	T2	11.4251	8.7140	8.2912
S5	T3	11.1102	14.7121	10.5461

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : TVYP

ST MEANS
========

	1	2	3
S1	0.2646 Aa	10.5221 Ab	10.9648 Bb
2	0.0000 Aa	10.5778 Ab	6.1983 Ab
3	0.0000 Aa	10.4418 Ab	10.5454 ABb
4	0.0000 Aa	9.9534 Ab	9.8862 Ab
5	0.0000 Aa	9.4768 Ab	12.1235 Bb

APPENDIX 14: TOTAL VIABLE SEED YIELD PER PRIMARY HEAD IN GRAMS = VYPH

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA

S1	T1	.00000000	.00000000	.00000000
S1	T2	.00206000	.00000000	.00000000
S1	T3	.00000000	.00000000	.00000000
S2	T1	.00000000	.00000000	.00000000
S2	T2	.00000000	.00000000	.00000000
S2	T3	.00000000	.00000000	.00000000
S3	T1	.00000000	.00000000	.00000000
S3	T2	.00000000	.00000000	.00000000
S3	T3	.00000000	.00000000	.00000000

ST MEANS

	1	2	3
S1	.00000000Aa	.00068667Aa	.00000000Aa
2	.00000000Aa	.00000000Aa	.00000000Aa
3	.00000000Aa	.00000000Aa	.00000000Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.100523	0.098547	0.096000
S1	T3	0.088933	0.094640	0.176550
S2	T1	0.000000	0.000000	0.000000
S2	T2	0.136800	0.075367	0.113227
S2	T3	0.135393	0.110327	0.046200
S3	T1	0.000000	0.000000	0.000000
S3	T2	0.084207	0.129350	0.141333
S3	T3	0.201833	0.176347	0.246143
S4	T1	0.000000	0.000000	0.000000
S4	T2	0.239730	0.174500	0.208250
S4	T3	0.159927	0.156150	0.281050
S5	T1	0.000000	0.000000	0.000000
S5	T2	0.078740	0.129107	0.143200
S5	T3	0.133650	0.094860	0.123410

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : VYPH

ST MEANS

	1	2	3
S1	0.000000Aa	0.098357Ab	0.120041 Ab
2	0.000000Aa	0.108464Ab	0.097307 Ab
3	0.000000 Aa	0.118297Ab	0.208774 Ab
4	0.000000 Aa	0.207493Bb	0.199042 Bb
5	0.000000 Aa	0.117016Ab	0.117307 Bb

APPENDIX 14: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.53327	0.76701	0.60269
S1	T3	0.67667	0.60433	0.53856
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.43923	0.54837	0.54720
S2	T3	0.61149	0.61718	0.57591
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.69533	0.73933	0.60948
S3	T3	0.71267	0.70487	0.62720
S4	T1	0.00000	0.00000	0.00000
S4	T2	0.76064	0.58113	0.52360
S4	T3	0.57158	0.69167	0.78162
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.56096	0.57504	0.50572
S5	T3	0.72960	0.63424	0.66283

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : VYPH

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.63432 BCb	0.60652 Ab
2	0.00000 Aa	0.51160 Ab	0.60153 Ab
3	0.00000 Aa	0.68138 Cb	0.68158 Ab
4	0.00000 Aa	0.62179 ABCb	0.68169 Ab
5	0.00000 Aa	0.54724 ABb	0.67556 Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	1.15567	1.19700	1.10100
S1	T3	1.14433	1.13058	1.11259
S2	T1	0.00000	0.00000	0.00000
S2	T2	1.08608	1.08192	1.16359
S2	T3	1.13025	1.00187	1.15368
S3	T1	0.00000	0.00000	0.00000
S3	T2	1.00633	1.01850	1.10185
S3	T3	1.00033	1.11540	1.01772
S4	T1	0.00000	0.00000	0.00000
S4	T2	1.29523	1.23382	1.03740
S4	T3	1.45236	1.32659	1.49333
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.93227	0.66411	1.14400
S5	T3	1.15248	1.05245	1.10605

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : VYPH

ST MEANS
========

	1	2	3
S1	0.00000 Aa	1.15122 Bb	1.12917 Ab
2	0.00000 Aa	1.11053 Bb	1.12193 Ab
3	0.00000 Aa	1.04223 ABb	1.04448 Ab
4	0.00000 Aa	1.16882 Bb	1.42410 Bc
5	0.00000 Aa	0.91346 Ab	1.10453 Ac

APPENDIX 14: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	1.6995	1.7470	1.0928
S1	T3	1.7813	1.3072	1.6983
S2	T1	0.0000	0.0000	0.0000
S2	T2	1.2982	1.4537	1.1758
S2	T3	1.5504	1.3413	1.3075
S3	T1	0.0000	0.0000	0.0000
S3	T2	1.3128	1.6768	1.6529
S3	T3	1.6739	1.6170	1.4909
S4	T1	0.0000	0.0000	0.0000
S4	T2	1.6492	1.5979	1.6155
S4	T3	1.5553	1.5374	1.8372
S5	T1	0.0000	0.0000	0.0000
S5	T2	1.5115	1.4071	1.6445
S5	T3	1.4662	1.7916	1.7205

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : VYPH

ST MEANS

	1	2	3
S1	0.0000ABa	1.5131Ab	1.5956 Ab
2	0.0000Aa	1.3092Ab	1.3997 Ab
3	0.0000ABa	1.5475Ab	1.5940 Ab
4	0.0000Ba	1.6209Ab	1.6433 Ab
5	0.0000ABa	1.5210Ab	1.6594 Ab

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : VYPH

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	2.0522	1.6596	2.1647
S1	T3	2.6638	1.7683	2.1179
S2	T1	0.0000	0.0000	0.0000
S2	T2	2.1320	2.0767	2.3716
S2	T3	2.3923	2.1140	2.1577
S3	T1	0.0000	0.0000	0.0000
S3	T2	2.2803	1.7906	2.3462
S3	T3	2.5679	2.0263	2.3293
S4	T1	0.0000	0.0000	0.0000
S4	T2	2.3543	2.1334	2.3150
S4	T3	2.5187	1.3813	2.6493
S5	T1	0.0000	0.0000	0.0000
S5	T2	2.1941	2.2466	1.6296
S5	T3	2.3762	2.4691	2.0483

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : VYPH

ST MEANS

	1	2	3
S1	0.0000 Aa	1.9588 Ab	2.1833Ab
2	0.0000 Aa	2.1935 Ab	2.2213Ab
3	0.0000 Aa	2.1391 Ab	2.5079Ab
4	0.0000 Aa	2.2675 Ab	2.1831 Ab
5	0.0000 Aa	2.0235 Ab	2.2979 Ab

APPENDIX 15: TOTAL VIABLE SEED YIELD PER SECONDARY HEAD IN GRAMS = VYPS

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA
====

S1	T1	.00000000	.00000000	.00000000
S1	T2	.00000000	.00000000	.00000000
S1	T3	.00032333	.00000000	.00000000
S2	T1	.00000000	.00000000	.00000000
S2	T2	.00000000	.00000000	.00000000
S2	T3	.00000000	.00000000	.00000000
S3	T1	.00000000	.00000000	.00000000
S3	T2	.00000000	.00000000	.00000000
S3	T3	.00000000	.00000000	.00000000

ST MEANS
========

	1	2	3
S1	.00000000Aa	00000000Aa	00010778Aa
2	.00000000Aa	00000000Aa	00000000Aa
3	.00000000Aa	00000000Aa	00000000Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA
====

S1	T1	0.000000	0.000000	0.000000
S1	T2	0.016080	0.033840	0.013212
S1	T3	0.012808	0.047333	0.045387
S2	T1	0.000000	0.000000	0.000000
S2	T2	0.014820	0.012333	0.013512
S2	T3	0.053220	0.023876	0.007618
S3	T1	0.000000	0.000000	0.000000
S3	T2	0.022815	0.025328	0.014779
S3	T3	0.026024	0.007729	0.015493
S4	T1	0.000000	0.000000	0.000000
S4	T2	0.026852	0.016533	0.022557
S4	T3	0.033672	0.003640	0.076667
S5	T1	0.000000	0.000000	0.000000
S5	T2	0.021032	0.017563	0.030100
S5	T3	0.022886	0.035658	0.020233

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : VYPS

ST MEANS
========

	1	2	3
S1	0.000000Aa	0.021044Aab	0.035176 Ab
2	0.000000Aa	0.013555Aab	0.028238 Ab
3	0.000000Aa	0.020974Aa	0.016415 Aa
4	0.000000Aa	0.022648Ab	0.037993 Ab
5	0.000000Aa	0.022905Ab	0.026259 Ab

APPENDIX 15: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.19884	0.17299	0.27982
S1	T3	0.21180	0.25770	0.12422
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.33824	0.14475	0.17269
S2	T3	0.19726	0.15478	0.21153
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.26166	0.32227	0.11225
S3	T3	0.18754	0.31087	0.25615
S4	T1	0.00000	0.00000	0.00000
S4	T2	0.25416	0.13752	0.28269
S4	T3	0.24934	0.22675	0.29412
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.08177	0.17226	0.11307
S5	T3	0.23455	0.17146	0.13608

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : VYPS

ST MEANS
========

	1	2	3
S1	0.00000Aa	0.21722ABb	0.19791Ab
2	0.00000Aa	0.21856ABb	0.18786Ab
3	0.00000Aa	0.23206Bb	0.25152Ab
4	0.00000Aa	0.22479Bb	0.25674Ab
5	0.00000Aa	0.12236Ab	0.18070Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA
====

S1	T1	0.00000	0.00000	0.00000
S1	T2	0.63831	0.50581	0.55358
S1	T3	0.46733	0.47226	0.66740
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.60835	0.52337	0.61417
S2	T3	0.53426	0.57079	0.50817
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.46784	0.45644	0.46938
S3	T3	0.51104	0.46675	0.45913
S4	T1	0.00000	0.00000	0.00000
S4	T2	0.78226	0.67834	0.63264
S4	T3	0.78296	0.71765	0.78626
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.44704	0.46935	0.56374
S5	T3	0.59037	0.40568	0.39367

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : VYPS

ST MEANS
========

	1	2	3
S1	0.00000 Aa	0.56590 Bb	0.53506 Ab
2	0.00000 Aa	0.56197 Bb	0.53774 Ab
3	0.00000 Aa	0.46455 Ab	0.48564 Ab
4	0.00000 Aa	0.69775 Bb	0.76229 Bb
5	0.00000 Aa	0.49338 ABb	0.46324 Ab

APPENDIX 15: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA

S1	T1	0.00000	0.00000	0.00000
S1	T2	1.05197	1.02144	0.81363
S1	T3	0.93044	0.86691	0.95017
S2	T1	0.00000	0.00000	0.00000
S2	T2	0.85754	0.85515	0.67702
S2	T3	0.99594	0.60470	0.64699
S3	T1	0.00000	0.00000	0.00000
S3	T2	0.92042	1.07013	1.09374
S3	T3	1.05592	0.77463	0.95192
S4	T1	0.00000	0.00000	0.00000
S4	T2	1.01310	1.01310	0.87647
S4	T3	0.72698	0.80470	1.08925
S5	T1	0.00000	0.00000	0.00000
S5	T2	0.82507	0.50346	0.89956
S5	T3	0.73339	1.04190	0.84124

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : VYPS

ST MEANS

	1	2	3
S1	0.00000 Aa	0.96234 ABb	0.91564 Ab
2	0.00000 Aa	0.79657 Ab	0.76921 Ab
3	0.00000 Aa	1.02810 Bb	0.92749 Ab
4	0.00000 Aa	0.96822 ABb	0.90031 Ab
5	0.00000 Aa	0.76936 Ab	0.87218 Ab

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : VYPS

DATA

S1	T1	0.0000	0.2646	0.0000
S1	T2	1.7281	1.6450	1.5759
S1	T3	1.7832	1.9897	1.7764
S2	T1	0.0000	0.0000	0.0000
S2	T2	1.5678	1.7131	1.6404
S2	T3	1.4548	1.4580	1.5804
S3	T1	0.0000	0.0000	0.0000
S3	T2	1.7637	1.4148	1.6091
S3	T3	1.6709	1.8506	1.6159
S4	T1	0.0000	0.0000	0.0000
S4	T2	1.8536	1.7077	1.7561
S4	T3	1.7178	1.4128	1.5747
S5	T1	0.0000	0.0000	0.0000
S5	T2	1.6290	1.6168	1.3323
S5	T3	1.6376	1.6365	1.8214

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : VYPS

ST MEANS

	1	2	3
S1	0.0882 Aa	1.6497 ABb	1.8498 Cb
2	0.0000 Aa	1.6404 ABb	1.4977 Ab
3	0.0000 Aa	1.5959 ABb	1.7125 BCb
4	0.0000 Aa	1.7725 Bb	1.5604 ABb
5	0.0000 Aa	1.5261 Ab	1.7652 Cc

APPENDIX 16: PERCENTAGE CONTRIBUTION OF PRIMARY HEAD TO VIABLE SEED YIELD PER PLANT = PVYPH

TEDDYBEAR : HARVEST 1 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.0000	0.0000	0.0000
S1	T2	67.3203	0.0000	0.0000
S1	T3	0.0000	0.0000	0.0000
S2	T1	0.0000	0.0000	0.0000
S2	T2	0.0000	0.0000	0.0000
S2	T3	0.0000	0.0000	0.0000
S3	T1	0.0000	0.0000	0.0000
S3	T2	0.0000	0.0000	0.0000
S3	T3	0.0000	0.0000	0.0000

ST MEANS

	1	2	3
S1	0.0000 Aa	22.4401 Aa	0.0000 Aa
2	0.0000 Aa	0.0000 Aa	0.0000 Aa
3	0.0000 Aa	0.0000 Aa	0.0000 Aa

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.000	0.000	0.000
S1	T2	60.613	44.067	58.874
S1	T3	61.151	33.210	53.689
S2	T1	0.000	0.000	0.000
S2	T2	66.100	61.986	67.286
S2	T3	36.891	49.530	57.596
S3	T1	0.000	0.000	0.000
S3	T2	47.718	48.732	65.364
S3	T3	63.952	61.813	77.054
S4	T1	0.000	0.000	0.000
S4	T2	59.658	69.903	66.213
S4	T3	48.568	91.585	47.739
S5	T1	0.000	0.000	0.000
S5	T2	42.585	64.412	52.142
S5	T3	55.353	44.178	54.709

TEDDYBEAR : HARVEST 2 ANALYSIS OF YIELD AND GERMINATION : PVYPH

ST MEANS

	1	2	3
S1	0.000 Aa	54.518 Ab	49.350 Ab
2	0.000 Aa	65.124 Ab	48.006 Ab
3	0.000 Aa	53.938 Ab	74.273 Bb
4	0.000 Aa	65.258 Ab	62.631 ABb
5	0.000 Aa	53.046 Ab	51.413 Ab

APPENDIX 16: CONTINUED

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.000	0.000	0.000
S1	T2	40.106	52.537	28.753
S1	T3	40.614	35.094	54.125
S2	T1	0.000	0.000	0.000
S2	T2	26.138	37.403	40.412
S2	T3	43.631	41.276	40.470
S3	T1	0.000	0.000	0.000
S3	T2	39.894	34.599	55.564
S3	T3	41.582	31.186	28.969
S4	T1	0.000	0.000	0.000
S4	T2	47.279	49.330	28.397
S4	T3	34.577	37.870	36.273
S5	T1	0.000	0.000	0.000
S5	T2	63.098	49.993	47.173
S5	T3	39.974	46.018	52.879

TEDDYBEAR : HARVEST 3 ANALYSIS OF YIELD AND GERMINATION : PVYPH

ST MEANS

	1	2	3
S1	0.000Aa	40.466Ab	43.278Ab
2	0.000Aa	34.651Ab	41.792Ab
3	0.000Aa	43.352Ab	33.912Ab
4	0.000Aa	41.669Ab	36.240Ab
5	0.000Aa	53.421Bb	46.290Ab

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.000	0.000	0.000
S1	T2	31.151	28.279	29.875
S1	T3	30.165	28.513	26.314
S2	T1	0.000	0.000	0.000
S2	T2	23.952	25.619	27.473
S2	T3	34.582	32.141	27.444
S3	T1	0.000	0.000	0.000
S3	T2	33.162	29.489	33.458
S3	T3	31.106	34.579	32.193
S4	T1	0.000	0.000	0.000
S4	T2	26.183	21.431	23.510
S4	T3	24.657	29.896	30.467
S5	T1	0.000	0.000	0.000
S5	T2	30.875	23.258	25.268
S5	T3	26.789	32.715	37.610

TEDDYBEAR : HARVEST 4 ANALYSIS OF YIELD AND GERMINATION : PVYPH

ST MEANS

	1	2	3
S1	0.000 Aa	29.768 BCb	28.331 Ab
2	0.000 Aa	25.681 ABb	31.369 Ac
3	0.000 Aa	32.036 Cb	32.626 Ab
4	0.000 Aa	23.708 Ab	28.340 Ab
5	0.000 Aa	26.467 ABb	32.371 Ac

APPENDIX 16: CONTINUED

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.000	0.000	0.000
S1	T2	24.417	24.279	23.655
S1	T3	29.086	27.371	29.197
S2	T1	0.000	0.000	0.000
S2	T2	29.216	25.368	30.265
S2	T3	23.739	28.747	35.523
S3	T1	0.000	0.000	0.000
S3	T2	22.191	22.705	22.076
S3	T3	21.857	29.447	29.925
S4	T1	0.000	0.000	0.000
S4	T2	24.557	23.977	26.686
S4	T3	29.960	25.788	29.655
S5	T1	0.000	0.000	0.000
S5	T2	31.405	39.666	28.142
S5	T3	29.986	26.922	24.406

TEDDYBEAR : HARVEST 5 ANALYSIS OF YIELD AND GERMINATION : PVYPH

ST MEANS

	1	2	3
S1	0.000 Aa	24.117 Ab	28.551 Ab
2	0.000 Aa	28.283 Bb	29.336 Ab
3	0.000 Aa	22.324 Ab	27.076 Ab
4	0.000 Aa	25.140 Ab	28.467 Ab
5	0.000 Aa	33.071 Bb	27.105 Ab

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : PVYPH

DATA

S1	T1	0.000	0.000	0.000
S1	T2	22.890	15.111	18.627
S1	T3	25.633	18.177	16.575
S2	T1	0.000	0.000	0.000
S2	T2	21.380	19.512	21.325
S2	T3	27.506	26.601	27.129
S3	T1	0.000	0.000	0.000
S3	T2	22.977	20.197	18.713
S3	T3	26.178	21.015	24.960
S4	T1	0.000	0.000	0.000
S4	T2	24.098	27.257	18.871
S4	T3	22.673	18.407	23.978
S5	T1	0.000	0.000	0.000
S5	T2	19.203	25.779	19.652
S5	T3	21.385	16.782	19.417

TEDDYBEAR : HARVEST 6 ANALYSIS OF YIELD AND GERMINATION : PVYPH

ST MEANS

	1	2	3
S1	0.000Aa	18.876Ab	20.128 Ab
2	0.000Aa	20.739Ab	27.079 Bb
3	0.000Aa	20.629Ab	24.051 Bb
4	0.000Aa	23.409Ab	21.686 Ab
5	0.000Aa	21.545Ab	19.195 Ab

APPENDIX 17: PERCENTAGE OF FERTILITY (PERCENTAGE OF SEEDS "C" DEVELOPED FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER PRIMARY HEAD = RFIA

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	9.417	36.139	15.419
T1	S3	62.871	76.147	64.151
T2	S1	62.437	53.535	52.000
T2	S2	80.296	74.057	68.720
T2	S3	67.873	75.000	72.811
T3	S1	77.143	65.128	71.889
T3	S2	73.272	67.431	69.082
T3	S3	70.892	74.884	68.868

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RFIA

TS MEANS

	1	2	3
T1	0.000 a	20.325 b	67.723 d
2	55.991 a	74.358 d	71.895 d
3	71.387 d	69.928 d	71.548 d

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	2.000	9.302	3.902
T1	S3	39.691	52.511	36.190
T1	S4	82.949	73.853	72.936
T1	S5	75.728	80.769	77.320
T2	S1	46.829	76.042	54.630
T2	S2	75.491	69.307	74.737
T2	S3	75.362	81.279	62.160
T2	S4	70.233	75.369	60.088
T2	S5	73.684	75.122	79.426
T3	S1	63.959	74.038	70.313
T3	S2	73.430	74.384	68.063
T3	S3	81.106	75.598	77.679
T3	S4	75.926	76.852	67.619
T3	S5	77.778	77.679	76.316

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RFIA

TS MEANS

	1	2	3	4	5
T1	0.000 a	5.068 a	42.798 b	76.579 d	77.939 d
2	59.167 c	73.175 d	79.600 d	75.230 d	76.077 d
3	69.437 d	71.959 d	78.128 d	73.466 d	77.257 d

APPENDIX 17: CONTINUED

TEDDYBEAR : HARVEST 3; PRIMARY : RFIA

DATA

T1	S1	0.000	0.000	13.679
T1	S2	0.000	9.259	3.774
T1	S3	57.658	66.990	51.163
T1	S4	75.000	75.349	77.885
T1	S5	74.490	76.000	76.056
T2	S1	72.193	70.642	76.471
T2	S2	55.500	71.963	73.370
T2	S3	75.349	78.082	74.519
T2	S4	73.267	79.630	71.963
T2	S5	76.555	73.543	73.529
T3	S1	72.321	72.115	70.225
T3	S2	73.430	74.884	74.129
T3	S3	77.674	79.909	75.217
T3	S4	79.512	73.934	72.414
T3	S5	79.295	70.936	75.962

TS MEANS

	1	2	3	4	5
T1	4.560a	4.344a	58.604c	76.078cd	75.515cd
2	73.102cd	66.944c	75.903cd	74.953cd	74.542cd
3	71.554cd	74.148cd	77.600cd	75.287cd	75.398cd

TEDDYBEAR : HARVEST 4; PRIMARY : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	8.456	2.283	15.544
T1	S3	58.636	55.769	56.931
T1	S4	80.189	76.364	79.630
T1	S5	79.439	76.923	80.275
T2	S1	71.859	76.168	65.385
T2	S2	71.429	74.771	78.095
T2	S3	76.884	77.064	79.524
T2	S4	78.641	74.877	72.603
T2	S5	72.727	73.039	75.877
T3	S1	70.093	67.619	72.414
T3	S2	67.805	71.429	74.654
T3	S3	71.642	76.923	75.000
T3	S4	77.293	75.000	75.576
T3	S5	81.818	76.777	80.095

TEDDYBEAR : HARVEST 4; PRIMARY : RFIA

TS MEANS

	1	2	3	4	5
T1	0.000a	8.764b	57.112c	78.727f	78.879f
2	71.137de	74.705de	77.824f	75.373de	73.881de
3	70.042d	71.296de	74.522def	75.956ef	79.563f

APPENDIX 17: CONTINUED

TEDDYBEAR : HARVEST 5; PRIMARY : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	14.019
T1	S3	54.502	54.245	52.968
T1	S4	78.469	76.098	72.139
T1	S5	82.143	74.634	75.355
T2	S1	73.659	76.214	51.691
T2	S2	75.598	70.000	70.053
T2	S3	76.959	77.570	79.295
T2	S4	79.147	75.962	72.906
T2	S5	75.120	77.512	76.526
T3	S1	73.611	73.514	72.449
T3	S2	73.364	78.061	68.844
T3	S3	72.851	73.529	72.000
T3	S4	66.505	73.604	78.537
T3	S5	70.476	83.486	76.339

TEDDYBEAR : HARVEST 5; PRIMARY : RFIA

TS MEANS

	1	2	3	4	5
T1	0.000a	4.673a	53.905b	75.569cd	77.377d
2	67.188c	71.854cd	77.941d	76.005cd	76.386cd
3	73.191cd	73.423cd	72.793cd	72.882cd	76.767cd

TEDDYBEAR : HARVEST 6; PRIMARY : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	57.143	47.489	59.649
T1	S4	75.926	73.000	72.021
T1	S5	68.528	78.912	72.727
T2	S1	71.220	59.898	68.545
T2	S2	71.429	76.744	72.897
T2	S3	77.434	77.143	75.068
T2	S4	73.953	72.637	72.596
T2	S5	68.246	73.684	74.877
T3	S1	71.698	73.529	70.270
T3	S2	72.139	72.959	67.327
T3	S3	78.704	78.095	70.892
T3	S4	75.909	75.648	75.336
T3	S5	77.465	75.238	74.757

TEDDYBEAR : HARVEST 6; PRIMARY : RFIA

TS MEANS

	1	2	3	4	5
T1	0.000a	0.000a	54.760b	73.649d	73.389d
2	66.554c	73.690d	76.755d	73.062d	72.269cd
3	71.833cd	70.808cd	75.897d	75.631d	75.820d

APPENDIX 18: PERCENTAGE OF FERTILITY (PERCENTAGE OF SEEDS "C" DEVELOPED FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER SECONDARY HEAD = RFIA

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	14.851	18.436	12.435
T2	S1	43.678	41.401	26.257
T2	S2	29.825	31.658	52.747
T2	S3	32.653	44.878	34.171
T3	S1	15.263	47.980	20.635
T3	S2	41.905	35.921	9.375
T3	S3	50.273	49.738	38.144

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : RFIA

TS MEANS

	1	2	3
T1	0.000 a	0.000 a	15.241 ab
2	37.112 c	38.077 c	37.234 c
3	27.959 bc	29.034 bc	46.052 c

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : RFIA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	7.101	8.458	3.390
T1	S4	52.778	56.977	53.552
T1	S5	75.455	65.979	59.880
T2	S1	44.444	60.843	51.149
T2	S2	59.091	66.071	63.889
T2	S3	71.204	55.862	62.428
T2	S4	37.500	63.953	62.983
T2	S5	73.333	64.286	51.592
T3	S1	48.077	50.303	65.455
T3	S2	61.622	58.940	45.732
T3	S3	68.108	68.421	63.415
T3	S4	59.322	64.912	66.474
T3	S5	61.714	61.728	67.000

TS MEANS

	1	2	3	4	5
T1	0.000 a	0.000 a	6.316 a	54.435 bc	67.105 c
2	52.146 b	63.017 bc	63.165 bc	54.812 bc	63.070 bc
3	54.611 bc	55.431 bc	66.648 c	63.569 bc	63.481 bc

APPENDIX 18: CONTINUED

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : RFIA

DATA
====

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	0.000	14.525	0.000
T1	S4	38.776	63.636	43.784
T1	S5	63.855	67.039	44.379
T2	S1	70.938	62.651	64.130
T2	S2	70.690	63.910	64.615
T2	S3	65.169	61.446	62.500
T2	S4	62.353	56.647	66.359
T2	S5	63.687	62.428	64.000
T3	S1	69.945	60.119	58.788
T3	S2	61.491	65.405	56.395
T3	S3	61.350	61.017	68.229
T3	S4	64.481	65.574	61.538
T3	S5	74.211	67.039	66.667

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : RFIA

TS MEANS
=========

	1	2	3	4	5
T1	0.000 a	0.000a	4.842 a	48.732b	58.424bc
2	65.923 c	66.405c	63.038 c	61.787c	63.372c
3	62.951 c	61.097c	63.532 c	63.864c	69.305c

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : RFIA

DATA
====

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	7.692
T1	S3	0.000	9.730	0.000
T1	S4	48.588	67.630	48.387
T1	S5	67.598	66.111	64.130
T2	S1	63.889	55.346	63.187
T2	S2	61.957	67.317	64.045
T2	S3	62.353	70.952	75.500
T2	S4	65.426	65.426	63.333
T2	S5	64.205	62.353	61.714
T3	S1	54.658	47.977	69.588
T3	S2	59.627	68.586	63.536
T3	S3	64.021	61.622	61.017
T3	S4	63.776	63.128	59.756
T3	S5	66.851	65.244	59.574

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : RFIA

TS MEANS
=========

	1	2	3	4	5
T1	0.000 a	2.504 a	3.243 a	54.668 b	65.946 cd
2	60.807 bcd	64.440 bcd	69.602 d	64.728 bcd	62.757 bcd
3	57.408 c	63.917 bcd	62.220 bcd	62.220 bcd	63.890 bcd

APPENDIX 18: CONTINUED

TEDDYBEAR : HARVEST 5;SECONDARY TOTALS : RFIA

DATA

====

T1	S1	0.000	1.685	0.000
T1	S2	0.000	10.366	0.000
T1	S3	11.892	31.414	5.789
T1	S4	38.857	60.000	56.291
T1	S5	70.561	62.893	66.304
T2	S1	70.244	58.896	58.480
T2	S2	71.795	58.857	62.500
T2	S3	68.657	66.667	73.298
T2	S4	60.494	61.714	60.241
T2	S5	57.764	58.667	65.682
T3	S1	63.636	63.636	61.728
T3	S2	61.798	67.045	60.588
T3	S3	63.095	56.774	59.669
T3	S4	60.811	51.613	61.677
T3	S5	66.667	73.077	61.202

TS MEANS

=========

	1	2	3	4	5
T1	0.562a	3.455a	16.365b	51.716c	66.586d
2	62.540cd	64.384d	69.541d	60.616cd	60.771cd
3	63.000cd	63.144cd	59.846cd	58.033cd	66.982d

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : RFIA

DATA

====

T1	S1	0.000	15.847	0.000
T1	S2	0.000	0.000	0.000
T1	S3	0.000	3.465	3.465
T1	S4	58.152	61.376	61.236
T1	S5	44.231	62.694	60.674
T2	S1	56.140	62.500	53.571
T2	S2	59.887	64.773	64.211
T2	S3	58.696	61.078	65.455
T2	S4	58.824	57.143	60.335
T2	S5	66.505	64.205	61.017
T3	S1	69.101	60.843	68.254
T3	S2	70.455	57.047	62.921
T3	S3	65.426	64.921	59.302
T3	S4	62.755	58.788	50.704
T3	S5	64.171	65.641	65.922

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : RFIA

TS MEANS

=========

	1	2	3	4	5
T1	5.282a	0.000a	2.310a	60.255bc	55.866b
2	57.404bc	62.957bc	61.743bc	58.767bc	63.909bc
3	66.056c	63.474bc	63.216bc	57.416bc	65.245bc

APPENDIX 19: PERCENTAGE RELATIVE STERILITY (PERCENTAGE OF TOTAL STERILE OVULS "D + R" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER PRIMARY HEAD = RSAA

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RSAA

DATA
====

T1	S1	64.734	21.053	22.866
T1	S2	69.507	55.446	81.057
T1	S3	29.703	16.055	25.943
T2	S1	24.873	26.768	19.000
T2	S2	16.749	20.755	24.645
T2	S3	16.742	17.982	17.972
T3	S1	19.048	25.128	21.198
T3	S2	17.972	21.560	26.087
T3	S3	20.188	17.209	17.453

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RSAA

TS MEANS
========

	1	2	3
T1	36.224a	68.670b	23.900a
2	23.547a	20.716a	17.566a
3	21.791a	21.873a	18.283a

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RSAA

DATA
====

T1	S1	100.000	100.000	100.000
T1	S2	98.000	90.698	96.098
T1	S3	55.670	46.119	63.610
T1	S4	14.747	19.266	26.606
T1	S5	20.874	13.462	17.010
T2	S1	30.244	22.396	27.315
T2	S2	21.154	24.752	22.632
T2	S3	22.222	17.808	14.554
T2	S4	21.395	22.660	18.142
T2	S5	16.268	20.000	14.833
T3	S1	30.964	22.596	29.167
T3	S2	23.671	21.675	25.654
T3	S3	17.972	23.445	20.536
T3	S4	23.148	20.833	27.143
T3	S5	17.130	16.964	16.667

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RSAA

TS MEANS
========

	1	2	3	4	5
T1	100.000d	94.932d	55.199c	20.206ab	17.115a
2	26.652b	22.846ab	18.195a	20.732ab	17.033a
3	27.576b	23.667ab	20.651ab	23.708ab	16.920a

TEDDYBEAR : HARVEST 3; PRIMARY : RSAA

DATA
====

T1	S1	100.000	100.000	86.321
T1	S2	100.000	90.741	96.226
T1	S3	42.342	33.010	48.837
T1	S4	24.000	24.651	22.115
T1	S5	22.449	21.500	20.657
T2	S1	23.529	26.147	21.267
T2	S2	27.000	24.299	22.826
T2	S3	21.860	18.265	23.077
T2	S4	22.277	17.593	22.897
T2	S5	20.096	19.263	20.098
T3	S1	24.554	25.962	28.090
T3	S2	26.087	22.791	21.891
T3	S3	20.000	15.068	23.478
T3	S4	17.561	21.327	26.601
T3	S5	16.740	24.138	21.154

TS MEANS
=========

	1	2	3	4	5
T1	95.440c	95.656c	41.376b	23.589a	21.535a
2	23.648a	24.708a	21.067a	20.922a	19.825a
3	26.202a	23.569a	19.516a	21.630a	20.677a

TEDDYBEAR : HARVEST 4; PRIMARY : RSAA

DATA
====

T1	S1	100.000	100.000	100.000
T1	S2	91.534	97.717	84.456
T1	S3	41.364	44.231	43.069
T1	S4	18.868	21.818	18.519
T1	S5	17.757	17.788	16.055
T2	S1	23.116	21.495	24.038
T2	S2	24.885	20.642	20.952
T2	S3	21.106	19.266	18.095
T2	S4	17.476	23.153	22.374
T2	S5	22.010	22.059	18.860
T3	S1	26.168	26.190	26.108
T3	S2	28.790	25.238	22.581
T3	S3	26.368	21.154	22.170
T3	S4	19.214	18.519	18.894
T3	S5	14.833	19.431	17.536

TEDDYBEAR : HARVEST 4; PRIMARY : RSAA

TS MEANS
=========

	1	2	3	4	5
T1	100.000g	91.236f	42.868e	19.735ab	17.200a
2	22.883bcd	22.100bcd	19.469ab	21.001abc	20.976abc
3	26.156d	25.533cd	23.231bcb	18.876ab	17.266a

APPENDIX 19: CONTINUED

TEDDYBEAR : HARVEST 5; PRIMARY : RSAA

DATA
====

T1	S1	100.000	100.000	100.000
T1	S2	100.000	100.000	85.981
T1	S3	45.024	45.755	46.575
T1	S4	20.096	21.951	23.881
T1	S5	17.411	23.902	19.905
T2	S1	23.902	22.816	28.986
T2	S2	21.531	28.571	27.807
T2	S3	19.355	20.093	18.062
T2	S4	17.062	21.635	24.138
T2	S5	22.967	20.574	22.066
T3	S1	22.685	25.405	24.490
T3	S2	22.897	19.368	28.643
T3	S3	20.814	22.059	26.500
T3	S4	27.184	21.320	20.000
T3	S5	24.762	12.365	18.304

TEDDYBEAR : HARVEST 5; PRIMARY : RSAA

TS MEANS
========

	1	2	3	4	5
T1	100.000d	95.327d	45.765c	21.976ab	20.406ab
2	25.234ab	25.970b	19.170ab	20.945ab	21.869ab
3	24.193ab	23.643ab	23.124ab	22.835ab	18.484a

TEDDYBEAR : HARVEST 6; PRIMARY : RSAA

DATA
====

T1	S1	100.000	100.000	100.000
T1	S2	100.000	100.000	100.000
T1	S3	42.857	52.511	40.351
T1	S4	24.074	27.000	27.979
T1	S5	31.472	21.088	27.273
T2	S1	28.780	40.102	31.455
T2	S2	28.571	23.256	27.103
T2	S3	22.566	22.857	24.312
T2	S4	26.047	27.363	27.404
T2	S5	31.754	26.316	25.123
T3	S1	28.302	26.471	29.730
T3	S2	27.861	27.041	32.673
T3	S3	21.296	21.905	29.108
T3	S4	24.091	24.352	24.664
T3	S5	22.535	24.762	25.243

TEDDYBEAR : HARVEST 6; PRIMARY : RSAA

TS MEANS
========

	1	2	3	4	5
T1	100.000d	100.000d	45.240c	26.351a	26.611a
2	33.446b	26.310a	23.245a	26.938a	27.731ab
3	28.167ab	29.192ab	24.103a	24.369a	24.180a

APPENDIX 20: PERCENTAGE RELATIVE STERILITY (PERCENTAGE OF TOTAL STERILE OVULES "D + R" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER SECONDARY HEAD = RSAA

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : RSAA

DATA
====

T1	S1	31.720	20.796	25.606
T1	S2	28.788	27.273	30.579
T1	S3	41.534	53.073	40.415
T2	S1	31.034	31.847	21.788
T2	S2	26.901	24.121	30.220
T2	S3	28.571	25.366	28.141
T3	S1	31.053	18.687	31.746
T3	S2	23.810	29.353	31.875
T3	S3	28.962	28.796	27.835

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : RSAA

TS MEANS
========

	1	2	3
T1	26.108a	28.800a	45.024b
2	28.723a	27.080a	27.359a
3	27.162a	28.346a	28.531a

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : RSAA

DATA
====

T1	S1	100.000	100.000	100.000
T1	S2	100.000	100.000	100.000
T1	S3	92.899	91.542	96.610
T1	S4	47.222	43.023	46.448
T1	S5	24.545	34.021	40.120
T2	S1	55.556	39.157	48.851
T2	S2	40.909	33.929	36.111
T2	S3	28.796	44.138	37.572
T2	S4	62.500	36.047	37.017
T2	S5	26.667	35.714	48.408
T3	S1	51.923	49.697	34.545
T3	S2	38.378	41.060	54.268
T3	S3	31.892	31.579	36.585
T3	S4	40.678	35.088	33.526
T3	S5	38.286	38.272	33.000

TS MEANS
========

	1	2	3	4	5
T1	100.000 c	100.000 c	93.684c	45.565ab	32.895 a
2	47.854 b	36.983 ab	36.835ab	45.169ab	36.930 ab
3	45.359 ab	44.509 ab	33.332a	36.431ab	36.519 ab

APPENDIX 20: CONTINUED

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : RSAA

DATA

====

T1	S1	100.000	100.000	100.000
T1	S2	100.000	100.000	100.000
T1	S3	100.000	85.475	100.000
T1	S4	61.224	36.364	56.216
T1	S5	36.145	32.961	55.621
T2	S1	29.012	37.349	35.670
T2	S2	29.310	36.090	35.365
T2	S3	34.831	38.554	37.500
T2	S4	37.647	43.353	33.641
T2	S5	36.313	37.572	36.000
T3	S1	30.055	39.881	41.212
T3	S2	38.509	34.595	43.605
T3	S3	38.650	38.963	31.771
T3	S4	35.519	34.426	38.462
T3	S5	25.789	32.961	33.333

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : RSAA

TS MEANS

========

	1	2	3	4	5
T1	100.000c	100.000c	95.158c	51.268b	41.576b
2	34.077a	33.595a	36.962a	38.213a	36.628a
3	37.049a	38.903a	36.408a	36.136a	30.695a

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : RSAA

DATA

====

T1	S1	100.000	100.000	100.000
T1	S2	100.000	100.000	92.308
T1	S3	100.000	90.270	100.000
T1	S4	51.412	32.370	51.613
T1	S5	32.402	33.889	35.670
T2	S1	36.111	44.654	36.613
T2	S2	38.043	32.683	35.955
T2	S3	37.647	29.048	24.500
T2	S4	34.574	34.574	36.667
T2	S5	35.795	37.647	38.286
T3	S1	45.342	52.023	30.412
T3	S2	40.373	31.414	36.464
T3	S3	35.979	38.378	38.963
T3	S4	36.224	36.872	40.244
T3	S5	33.149	34.756	40.426

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : RSAA

TS MEANS

========

	1	2	3	4	5
T1	100.000d	97.436d	96.757d	45.152c	34.054 bc
2	39.193abc	35.560abc	30.398a	35.272abc	37.243 abc
3	42.592bc	36.053abc	37.700abc	37.760abc	36.110 abc

APPENDIX 20: CONTINUED

TEDDYBEAR : HARVEST 5;SECONDARY TOTALS : RSAA

DATA
====

T1	S1	100.000	98.315	100.000
T1	S2	100.000	89.634	100.000
T1	S3	88.108	68.586	94.211
T1	S4	61.143	40.000	43.709
T1	S5	29.439	37.107	33.696
T2	S1	29.756	41.104	41.520
T2	S2	28.205	41.143	37.500
T2	S3	31.343	33.333	26.702
T2	S4	39.506	38.286	39.759
T2	S5	42.236	41.333	34.118
T3	S1	36.364	36.364	38.272
T3	S2	38.202	32.955	39.412
T3	S3	36.905	43.226	40.331
T3	S4	39.189	48.387	38.323
T3	S5	33.333	26.923	38.798

TS MEANS
========

	1	2	3	4	5
T1	99.438d	96.545d	83.635c	48.284b	33.414 a
2	37.460ab	35.616a	30.459a	39.184ab	39.229 ab
3	37.000ab	36.856ab	40.154ab	41.967ab	33.018 a

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : RSAA

DATA
====

T1	S1	100.000	84.153	100.000
T1	S2	100.000	100.000	100.000
T1	S3	100.000	96.535	96.535
T1	S4	41.848	38.624	38.764
T1	S5	55.769	37.306	39.326
T2	S1	43.860	37.500	46.429
T2	S2	40.113	35.227	35.789
T2	S3	41.304	38.922	34.545
T2	S4	41.176	42.857	39.665
T2	S5	33.495	35.795	38.963
T3	S1	30.899	39.157	31.746
T3	S2	29.545	42.953	37.079
T3	S3	34.574	35.079	40.698
T3	S4	37.245	41.212	49.296
T3	S5	35.829	34.359	34.078

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : RSAA

TS MEANS
========

	1	2	3	4	5
T1	94.718c	100.000c	97.690c	39.745ab	44.134b
2	42.596ab	37.043ab	38.257ab	41.233ab	36.091ab
3	33.934a	36.526ab	36.784ab	42.584ab	34.755ab

APPENDIX 21: STERILITY INDEX (PERCENTAGE OF STERILE "D" OVULES FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER PRIMARY HEAD = RSA

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RSA

DATA
====

T1	S1	46.8599	0.0000	0.0000
T1	S2	52.4664	34.1584	59.0308
T1	S3	7.9208	0.0000	9.9057
T2	S1	0.0000	0.0000	0.0000
T2	S2	0.0000	0.0000	0.0000
T2	S3	0.0000	0.0000	0.0000
T3	S1	0.0000	0.0000	0.0000
T3	S2	0.0000	0.0000	0.0000
T3	S3	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : RSA

TS MEANS
========

	1	2	3
T1	15.6200a	48.5519b	5.9422a
2	0.0000a	0.0000a	0.0000a
3	0.0000a	0.0000a	0.0000a

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RSA

DATA
====

T1	S1	71.357	80.460	80.543
T1	S2	68.000	69.302	72.195
T1	S3	35.567	27.397	40.476
T1	S4	0.000	0.000	4.128
T1	S5	0.000	0.000	0.000
T2	S1	5.854	3.646	7.407
T2	S2	0.000	0.000	0.000
T2	S3	0.966	0.457	0.469
T2	S4	0.000	0.000	0.442
T2	S5	0.000	0.000	0.000
T3	S1	1.523	0.481	3.646
T3	S2	0.000	0.000	0.000
T3	S3	1.382	0.478	3.571
T3	S4	0.926	0.463	1.429
T3	S5	0.000	0.000	0.000

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : RSA

TS MEANS
========

	1	2	3	4	5
T1	77.453e	69.332d	34.480c	1.376ab	0.000a
2	5.636b	0.000a	0.631a	0.147a	0.000a
3	1.883ab	0.000a	1.811ab	0.939a	0.000a

APPENDIX 21: CONTINUED

TEDDYBEAR : HARVEST 3; PRIMARY : RSA

DATA
====

T1	S1	76.650	78.505	60.377
T1	S2	71.958	70.370	73.113
T1	S3	18.018	15.049	26.047
T1	S4	2.500	3.256	5.288
T1	S5	0.000	0.000	1.878
T2	S1	3.209	2.752	2.262
T2	S2	1.500	0.467	2.174
T2	S3	0.465	0.913	0.000
T2	S4	0.990	0.000	1.869
T2	S5	0.957	0.000	0.000
T3	S1	2.232	1.923	0.000
T3	S2	1.449	0.930	0.498
T3	S3	0.000	0.000	0.000
T3	S4	0.976	0.474	0.493
T3	S5	0.000	0.000	0.000

TEDDYBEAR : HARVEST 3; PRIMARY : RSA

TS MEANS
========

	1	2	3	4	5
T1	71.844 c	71.814c	19.704 b	3.681a	0.626 a
2	2.741 a	1.380a	0.459 a	0.953a	0.319 a
3	1.385 a	0.959a	0.000 a	0.647a	0.000 a

TEDDYBEAR : HARVEST 4; PRIMARY : RSA

DATA
====

T1	S1	74.879	77.714	78.947
T1	S2	66.667	72.603	58.549
T1	S3	17.273	20.673	19.307
T1	S4	0.000	0.455	0.000
T1	S5	1.402	0.481	1.835
T2	S1	0.000	0.467	0.962
T2	S2	0.000	0.000	0.476
T2	S3	1.508	0.917	0.476
T2	S4	0.000	0.000	0.913
T2	S5	0.478	0.490	1.316
T3	S1	3.738	4.286	1.970
T3	S2	1.951	0.476	1.382
T3	S3	1.493	1.923	0.472
T3	S4	2.620	0.463	0.461
T3	S5	0.957	0.474	0.948

TS MEANS
========

	1	2	3	4	5
T1	77.180d	65.940c	19.084d	0.152a	1.239a
2	0.476a	0.159a	0.967a	0.304a	0.761a
3	3.331a	1.270a	1.296a	1.181a	0.793a

APPENDIX 21: CONTINUED

TEDDYBEAR : HARVEST 5; PRIMARY : RSA

DATA
====

T1	S1	80.465	74.771	60.995
T1	S2	77.723	80.093	67.757
T1	S3	23.223	27.830	28.311
T1	S4	2.871	1.463	4.478
T1	S5	2.679	1.951	3.318
T2	S1	1.463	1.942	6.763
T2	S2	1.914	4.266	0.000
T2	S3	0.000	0.935	3.524
T2	S4	2.370	2.885	0.965
T2	S5	0.478	1.914	0.939
T3	S1	2.778	2.162	4.082
T3	S2	2.804	0.510	1.508
T3	S3	2.715	1.961	0.500
T3	S4	0.971	3.046	1.463
T3	S5	0.476	0.000	1.339

TS MEANS
========

	1	2	3	4	5
T1	78.744c	75.191c	26.454b	2.937a	2.649a
2	3.389a	2.067a	1.466a	2.080a	1.110a
3	3.007a	1.607a	1.725a	1.827a	0.605a

TEDDYBEAR : HARVEST 6; PRIMARY : RSA

DATA
====

T1	S1	79.381	76.585	62.297
T1	S2	79.000	76.289	78.325
T1	S3	25.346	29.680	22.368
T1	S4	5.093	4.000	7.254
T1	S5	6.091	4.082	1.515
T2	S1	10.732	17.766	13.146
T2	S2	4.926	4.651	5.140
T2	S3	4.867	2.381	6.422
T2	S4	4.136	4.478	9.135
T2	S5	6.635	6.699	3.941
T3	S1	8.019	4.412	10.135
T3	S2	4.975	7.143	2.970
T3	S3	4.167	1.905	9.390
T3	S4	6.364	3.627	3.587
T3	S5	1.878	3.810	4.854

TS MEANS
========

	1	2	3	4	5
T1	79.421d	77.871d	25.798c	5.449a	3.896a
2	13.881b	4.906a	4.557a	5.933a	5.758a
3	7.522a	5.029a	5.154a	4.526a	3.514a

APPENDIX 22: STERILITY INDEX (PERCENTAGE OF STERILE "D" OVULES FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER SECONDARY HEAD = RSA

TEDDYBEAR : HARVEST 1/SECONDARY TOTALS : RSA

DATA
====

T1	S1	0.0000	0.0000	0.0000
T1	S2	0.0000	0.0000	0.0000
T1	S3	14.8515	23.4637	11.3990
T2	S1	0.0000	0.0000	0.0000
T2	S2	0.0000	0.0000	0.0000
T2	S3	0.0000	0.0000	0.0000
T3	S1	0.0000	0.0000	0.0000
T3	S2	0.0000	0.0000	0.0000
T3	S3	0.0000	0.0000	0.0000

TS MEANS
========

	1	2	3
T1	0.0000 a	0.0000 a	16.5714 b
2	0.0000 a	0.0000 a	0.0000 a
3	0.0000 a	0.0000 a	0.0000 a

TEDDYBEAR : HARVEST 2/SECONDARY TOTALS : RSA

DATA
====

T1	S1	74.706	70.556	70.103
T1	S2	69.022	70.349	69.101
T1	S3	62.130	64.677	64.972
T1	S4	16.111	11.047	16.393
T1	S5	7.727	3.608	10.180
T2	S1	22.222	11.446	15.517
T2	S2	10.227	1.786	7.222
T2	S3	3.665	10.345	5.780
T2	S4	30.978	4.651	7.182
T2	S5	4.615	10.204	19.745
T3	S1	19.231	20.606	7.273
T3	S2	8.649	7.285	23.780
T3	S3	3.784	2.632	5.691
T3	S4	9.605	5.263	4.624
T3	S5	6.857	4.938	5.500

TS MEANS
========

	1	2	3	4	5
T1	71.788 c	69.491 c	63.926 c	14.517 ab	7.172 ab
2	16.395 b	6.412 ab	6.597 ab	14.271 ab	11.522 ab
3	15.703 b	13.238 ab	4.035 a	6.497 ab	5.765 ab

APPENDIX 22: CONTINUED

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : RSA

DATA
====

T1	S1	71.856	69.744	70.811
T1	S2	70.707	75.000	69.143
T1	S3	68.156	54.749	75.377
T1	S4	29.932	5.862	27.027
T1	S5	6.627	3.352	23.669
T2	S1	6.790	10.241	7.609
T2	S2	4.598	9.774	7.179
T2	S3	3.933	5.422	6.875
T2	S4	11.765	12.139	4.147
T2	S5	7.821	5.202	4.571
T3	S1	6.557	7.143	10.303
T3	S2	6.832	3.784	12.209
T3	S3	7.975	7.910	5.729
T3	S4	9.836	3.279	5.325
T3	S5	3.684	1.676	1.639

TS MEANS
========

	1	2	3	4	5
T1	70.804c	71.617c	66.094c	20.947b	11.216a
2	8.213a	7.184a	5.410a	9.350a	5.865a
3	8.001a	7.608a	7.205a	6.147a	2.333a

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : RSA

DATA
====

T1	S1	70.056	72.376	76.042
T1	S2	68.391	71.134	64.497
T1	S3	70.526	61.081	72.283
T1	S4	20.904	0.578	23.656
T1	S5	6.145	2.778	8.696
T2	S1	6.111	10.063	3.846
T2	S2	8.152	9.756	8.427
T2	S3	10.000	5.238	2.000
T2	S4	6.915	4.787	7.222
T2	S5	3.977	7.647	6.657
T3	S1	11.801	20.231	4.639
T3	S2	7.453	6.806	7.162
T3	S3	6.878	8.108	7.910
T3	S4	8.673	6.704	7.927
T3	S5	7.132	6.098	9.043

TS MEANS
========

	1	2	3	4	5
T1	72.825c	68.007c	67.963c	15.046b	5.873a
2	6.673ab	8.778ab	5.746a	6.308a	6.160ab
3	12.224ab	7.147ab	7.632ab	7.768ab	7.441ab

APPENDIX 22: CONTINUED

TEDDYBEAR : HARVEST 5/SECONDARY TOTALS : RSA

DATA
====

T1	S1	75.926	65.730	71.429
T1	S2	79.167	56.098	70.149
T1	S3	61.622	43.979	63.158
T1	S4	32.000	12.353	12.583
T1	S5	5.140	5.031	5.978
T2	S1	2.927	9.202	11.696
T2	S2	2.564	10.286	4.375
T2	S3	5.473	7.179	1.571
T2	S4	6.790	6.286	7.229
T2	S5	9.317	9.333	2.941
T3	S1	11.932	6.667	4.938
T3	S2	6.742	10.227	8.235
T3	S3	3.571	9.032	8.287
T3	S4	6.757	16.774	7.784
T3	S5	6.771	7.692	10.929

TS MEANS
=========

	1	2	3	4	5
T1	71.028d	68.471d	56.253c	18.979b	5.383a
2	7.942a	5.742a	4.741a	6.768a	7.197a
3	7.846a	8.401ab	6.904a	10.438ab	8.464ab

TEDDYBEAR : HARVEST 6/SECONDARY TOTALS : RSA

DATA
====

T1	S1	78.919	57.923	71.579
T1	S2	72.832	68.108	72.105
T1	S3	70.408	69.802	67.327
T1	S4	11.413	16.931	11.798
T1	S5	25.641	9.326	8.427
T2	S1	12.281	6.548	13.095
T2	S2	10.734	5.682	5.263
T2	S3	10.326	7.186	6.061
T2	S4	9.150	9.524	13.408
T2	S5	10.680	9.659	9.040
T3	S1	7.865	8.434	4.233
T3	S2	2.273	9.396	5.618
T3	S3	9.574	5.236	8.721
T3	S4	11.224	15.758	9.859
T3	S5	6.952	6.667	5.587

TS MEANS
=========

	1	2	3	4	5
T1	69.474c	71.015c	69.179c	13.361ab	14.465b
2	10.641ab	7.226ab	7.857ab	10.694ab	9.793ab
3	6.844ab	5.762a	7.844ab	12.280ab	6.402ab

APPENDIX 23: PERCENTAGE OF RUDIMENTARY "R" OVULES (FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER PRIMARY HEAD+ = %RA.

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %RA

DATA
====

T1	S1	17.874	21.053	22.686
T1	S2	17.040	21.287	22.026
T1	S3	21.782	16.055	16.038
T2	S1	24.873	26.768	19.000
T2	S2	16.749	20.755	24.645
T2	S3	16.742	17.982	17.972
T3	S1	19.048	25.128	21.198
T3	S2	17.972	21.560	26.087
T3	S3	20.188	17.209	17.453

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %RA

TS MEANS
========

	1	2	3
T1	20.604a	20.118a	17.958a
2	23.547a	20.716a	17.566a
3	21.791a	21.873a	18.263a

TEDDYBEAR : HARVEST 2;PRIMARY TOTALS : %RA

DATA
====

T1	S1	28.643	19.540	19.457
T1	S2	30.000	21.395	23.902
T1	S3	20.103	18.721	23.333
T1	S4	14.747	19.266	22.477
T1	S5	20.874	13.462	17.010
T2	S1	24.390	18.750	19.907
T2	S2	21.154	24.752	22.632
T2	S3	21.256	17.352	14.065
T2	S4	21.395	22.660	17.699
T2	S5	16.268	20.000	14.833
T3	S1	29.442	22.115	25.521
T3	S2	23.671	21.675	25.654
T3	S3	16.590	22.967	16.964
T3	S4	22.222	20.370	25.714
T3	S5	17.130	16.964	16.667

TS MEANS
========

	1	2	3	4	5
T1	22.547abcd	25.099 cd	20.719abcd	18.830abc	17.115b
2	21.016abcd	22.846abcd	17.564ab	20.585abcd	17.033b
3	25.693d	23.657bcd	18.840abcd	22.769abcd	16.920a

APPENDIX 23: CONTINUED

TEDDYBEAR : HARVEST 3; PRIMARY : %RA

DATA

T1	S1	23.350	21.495	25.943
T1	S2	28.042	20.370	23.113
T1	S3	24.324	17.961	22.791
T1	S4	21.500	21.395	16.827
T1	S5	22.449	21.500	18.779
T2	S1	20.321	23.394	19.005
T2	S2	25.500	23.832	20.652
T2	S3	21.395	17.352	23.077
T2	S4	21.287	17.593	21.028
T2	S5	19.139	19.283	20.098
T3	S1	22.321	24.038	28.090
T3	S2	24.638	21.860	21.393
T3	S3	20.000	15.068	23.478
T3	S4	16.585	20.853	26.108
T3	S5	16.740	24.138	21.154

TEDDYBEAR : HARVEST 3; PRIMARY : %RA

TS MEANS

	1	2	3	4	5
T1	23.596a	23.842a	21.692a	19.907a	20.909a
2	20.907a	23.328a	20.608a	19.969a	19.506a
3	24.817a	22.630a	19.516a	21.182a	20.677a

TEDDYBEAR : HARVEST 4; PRIMARY : %RA

DATA

T1	S1	25.121	22.286	21.053
T1	S2	24.868	25.114	25.907
T1	S3	24.091	23.558	23.762
T1	S4	18.868	21.364	18.519
T1	S5	16.355	17.308	14.220
T2	S1	23.116	21.028	23.077
T2	S2	24.885	20.642	20.476
T2	S3	19.598	18.349	17.619
T2	S4	17.476	23.153	21.461
T2	S5	21.531	21.569	17.544
T3	S1	22.430	21.905	24.138
T3	S2	26.829	24.762	21.198
T3	S3	24.876	19.231	21.698
T3	S4	16.594	18.056	18.433
T3	S5	13.876	18.957	16.568

TS MEANS : HARVEST 4; PRIMARY : %RA

	1	2	3	4	5
T1	22.820 efgh	25.296 h	23.804 fgh	19.583 bcde	15.961 a
2	22.407 efgh	22.001 defg	18.522 abcd	20.697 cdefg	20.215 cdef
3	22.824 efgh	24.263 gh	21.935 defg	17.694 abc	16.474 ab

APPENDIX 23: CONTINUED

TEDDYBEAR : HARVEST 5; PRIMARY : %RA

DATA
====

T1	S1	19.535	25.229	19.005
T1	S2	22.277	19.907	18.224
T1	S3	21.801	17.925	18.265
T1	S4	17.225	20.488	19.403
T1	S5	14.732	21.951	16.588
T2	S1	22.439	20.874	22.222
T2	S2	19.617	24.286	27.807
T2	S3	19.355	19.159	14.537
T2	S4	14.692	18.750	23.153
T2	S5	22.488	18.660	21.127
T3	S1	19.907	23.243	20.408
T3	S2	20.093	18.878	27.136
T3	S3	18.100	20.098	26.000
T3	S4	26.214	18.274	18.537
T3	S5	24.286	12.385	16.964

TEDDYBEAR : HARVEST 5; PRIMARY : %RA

TS MEANS
========

	1	2	3	4	5
T1	21.256 a	20.136 a	19.330 a	19.039 a	17.757 a
2	21.845 a	23.903 a	17.604 a	18.665 a	20.758 a
3	21.186 a	22.036 a	21.399 a	21.008 a	17.878 a

TEDDYBEAR : HARVEST 6; PRIMARY : %RA

DATA
====

T1	S1	20.619	23.415	17.703
T1	S2	21.000	23.711	21.675
T1	S3	17.512	22.831	17.962
T1	S4	18.981	23.000	20.725
T1	S5	25.381	17.007	25.758
T2	S1	18.049	22.335	18.310
T2	S2	23.645	18.605	21.963
T2	S3	17.699	20.476	17.690
T2	S4	21.860	22.886	18.269
T2	S5	25.118	19.617	21.182
T3	S1	20.283	22.059	19.595
T3	S2	22.886	19.898	29.703
T3	S3	17.130	20.000	19.718
T3	S4	17.727	20.725	21.076
T3	S5	20.657	20.952	20.388

TEDDYBEAR : HARVEST 6; PRIMARY : %RA

TS MEANS
========

	1	2	3	4	5
T1	20.579ab	22.129ab	19.442ab	20.902ab	22.715ab
2	19.565ab	21.404ab	18.608a	21.005ab	21.973ab
3	20.645ab	24.102b	18.949ab	19.643ab	20.666ab

APPENDIX 24: PERCENTAGE OF RUDIMENTARY "R" OVULES (FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) PER SECONDARY HEAD = %RA

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %RA

DATA

T1	S1	31.720	20.796	25.806
T1	S2	28.738	27.273	30.579
T1	S3	26.733	29.609	29.016
T2	S1	31.034	31.847	21.788
T2	S2	26.901	24.121	30.220
T2	S3	28.571	25.366	28.141
T3	S1	31.053	18.687	31.746
T3	S2	23.810	29.353	31.675
T3	S3	28.962	28.796	27.835

TS MEANS

	1	2	3
T1	26.108a	28.880a	28.452a
2	28.223a	27.080a	27.359a
3	27.162a	28.346a	28.531a

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : %RA

DATA

T1	S1	25.294	29.444	29.697
T1	S2	30.978	29.651	30.899
T1	S3	30.769	26.866	31.638
T1	S4	31.111	31.977	30.055
T1	S5	16.818	30.412	29.940
T2	S1	33.333	27.711	33.333
T2	S2	30.682	32.143	28.889
T2	S3	25.131	33.793	31.792
T2	S4	31.522	31.395	29.634
T2	S5	22.051	25.510	28.662
T3	S1	32.692	29.091	27.273
T3	S2	29.730	33.775	30.488
T3	S3	28.108	28.947	30.694
T3	S4	31.073	29.825	28.902
T3	S5	31.429	33.333	27.500

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : %RA

TS MEANS

	1	2	3	4	5
T1	28.212 a	30.509 a	29.758 a	31.048 a	25.724 a
2	31.459 a	30.571 a	30.239 a	30.917 a	25.408 a
3	29.685 a	31.331 a	29.317 a	29.933 a	30.754 a

APPENDIX 24: CONTINUED

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : %RA

DATA
====

T1	S1	28.144	30.256	29.189
T1	S2	29.293	25.000	30.857
T1	S3	31.844	30.726	24.623
T1	S4	31.293	30.481	29.189
T1	S5	29.518	29.609	31.953
T2	S1	22.222	27.108	28.261
T2	S2	24.713	26.316	28.205
T2	S3	30.899	33.133	30.625
T2	S4	25.882	31.214	29.493
T2	S5	28.492	32.370	31.429
T3	S1	23.497	32.738	30.909
T3	S2	31.677	30.811	31.395
T3	S3	30.675	31.073	26.042
T3	S4	25.683	31.148	33.136
T3	S5	22.105	31.285	31.694

TEDDYBEAR : HARVEST 3;SECONDARY TOTALS : %RA

TS MEANS
========

	1	2	3	4	5
T1	29.196a	28.383a	29.084a	30.321a	30.360a
2	25.864a	26.411a	31.552a	28.863a	30.763a
3	29.048a	31.294a	29.283a	29.989a	28.361a

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : %RA

DATA
====

T1	S1	29.944	27.624	23.958
T1	S2	31.609	28.866	27.811
T1	S3	29.474	29.189	27.717
T1	S4	30.508	31.792	27.957
T1	S5	26.257	31.111	27.174
T2	S1	30.000	34.591	32.967
T2	S2	29.891	22.927	27.528
T2	S3	27.647	23.810	22.500
T2	S4	27.660	29.787	29.444
T2	S5	31.818	30.000	31.429
T3	S1	33.540	31.792	25.773
T3	S2	32.919	24.607	29.282
T3	S3	29.101	30.270	31.073
T3	S4	27.551	30.168	32.317
T3	S5	25.967	28.659	31.383

TEDDYBEAR : HARVEST 4;SECONDARY TOTALS : %RA

TS MEANS
========

	1	2	3	4	5
T1	27.175 ab	29.429abc	28.793 abc	30.066 bc	28.181abc
2	32.519 c	26.782 ab	24.652 a	28.964 abc	31.082bc
3	30.368 bc	28.936abc	30.148 bc	30.012 bc	28.669abc

APPENDIX 24: CONTINUED

TEDDYBEAR : HARVEST 5;SECONDARY TOTALS : %RA

DATA

T1	S1	24.074	32.584	28.571
T1	S2	20.833	33.537	29.851
T1	S3	26.486	24.607	31.053
T1	S4	29.143	27.647	31.126
T1	S5	24.299	32.075	27.717
T2	S1	26.829	31.902	29.825
T2	S2	25.641	30.857	33.125
T2	S3	25.871	26.154	25.131
T2	S4	32.716	32.000	32.530
T2	S5	32.919	32.000	31.176
T3	S1	24.432	29.697	33.333
T3	S2	31.461	22.727	31.176
T3	S3	33.333	34.194	32.044
T3	S4	32.432	31.613	30.539
T3	S5	26.563	19.231	27.869

TEDDYBEAR : HARVEST 5;SECONDARY TOTALS : %RA

TS MEANS

	1	2	3	4	5
T1	28.410abc	28.074abc	27.362abc	29.305abc	28.031abc
2	29.519abc	29.874abc	25.718ab	32.415bc	32.032bc
3	29.154abc	28.455abc	33.190c	31.528bc	24.554a

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : %RA

DATA

T1	S1	21.081	26.230	28.421
T1	S2	27.168	31.892	27.895
T1	S3	29.592	26.733	29.208
T1	S4	30.435	21.693	26.966
T1	S5	30.128	27.979	30.699
T2	S1	31.579	30.952	33.333
T2	S2	29.379	29.545	30.526
T2	S3	30.978	31.737	28.465
T2	S4	32.026	33.333	26.257
T2	S5	22.816	26.136	29.944
T3	S1	23.034	30.723	27.513
T3	S2	27.273	33.557	31.461
T3	S3	25.000	29.843	31.977
T3	S4	26.020	25.455	39.437
T3	S5	28.877	27.692	28.492

TEDDYBEAR : HARVEST 6;SECONDARY TOTALS : %RA

TS MEANS

	1	2	3	4	5
T1	25.244a	28.965a	28.511a	26.365a	29.669a
2	31.955a	29.817a	30.400a	30.539a	26.298a
3	27.090a	30.763a	28.940a	30.304a	28.354a

APPENDIX 25: PERCENTAGE DISTRIBUTION OF FERTILE OVULES "C" IN 6 POSITIONS WITHIN PRIMARY HEADS = RFIA

TEDDYBEAR : HARVEST 1/ PRIMARY : RFIA

DATA
====

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	4.4554	0.8811
T1	S2	HB	VM	6.7265	15.8416	9.6916
T1	S2	HB	VT	2.6906	9.4059	4.8458
T1	S2	HT	VB	0.0000	1.4851	0.0000
T1	S2	HT	VM	0.0000	3.9604	0.0000
T1	S2	HT	VT	0.0000	0.9901	0.0000
T1	S3	HB	VB	9.4059	12.8440	11.7925
T1	S3	HB	VM	21.2871	18.8073	20.2830
T1	S3	HB	VT	15.8416	16.9725	16.9811
T1	S3	HT	VB	3.4653	5.9633	2.3585
T1	S3	HT	VM	10.3960	17.8899	8.9623
T1	S3	HT	VT	2.4752	3.6697	3.7736
T2	S1	HB	VB	9.6447	7.5758	9.0000
T2	S1	HB	VM	19.2893	19.1919	15.5000
T2	S1	HB	VT	14.7208	16.6667	15.0000
T2	S1	HT	VB	2.5381	1.5152	3.0000
T2	S1	HT	VM	11.6751	5.0505	7.5000
T2	S1	HT	VT	4.5685	3.5354	2.0000
T2	S2	HB	VB	12.8079	13.2075	10.4265
T2	S2	HB	VM	20.1970	19.8113	21.3270
T2	S2	HB	VT	17.7340	17.4528	17.0616
T2	S2	HT	VB	4.9261	3.7736	2.8436
T2	S2	HT	VM	17.7340	14.6226	12.3223
T2	S2	HT	VT	6.8966	5.1887	4.7393
T2	S3	HB	VB	12.6697	13.1579	14.2857
T2	S3	HB	VM	18.0995	19.7368	18.8940
T2	S3	HB	VT	16.2896	17.1053	17.0507
T2	S3	HT	VB	4.0724	3.9474	5.5300
T2	S3	HT	VM	11.3122	15.7895	12.4424
T2	S3	HT	VT	5.4299	5.2632	4.6083
T3	S1	HB	VB	13.3333	11.7949	11.5207
T3	S1	HB	VM	19.5238	20.0000	21.6590
T3	S1	HB	VT	18.0952	17.4359	16.5899
T3	S1	HT	VB	5.7143	2.0513	4.1475
T3	S1	HT	VM	16.1905	10.2564	14.7465
T3	S1	HT	VT	4.2857	3.5897	3.2258
T3	S2	HB	VB	11.9816	12.3853	11.5942
T3	S2	HB	VM	21.6590	19.2661	20.7729
T3	S2	HB	VT	16.5899	16.5138	17.3913
T3	S2	HT	VB	3.6866	3.2110	2.4155
T3	S2	HT	VM	14.2857	11.4679	11.5942
T3	S2	HT	VT	5.0691	4.5872	5.3140
T3	S3	HB	VB	12.6761	12.0930	12.7358
T3	S3	HB	VM	18.7793	19.5349	19.3396
T3	S3	HB	VT	17.3709	15.8140	16.5094
T3	S3	HT	VB	5.6338	5.1163	3.7736
T3	S3	HT	VM	12.2066	15.8140	13.2075
T3	S3	HT	VT	4.2254	6.5116	3.3019

APPENDIX 25: CONTINUED

TSHV MEANS

			B	M	T
T1	S1	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.0000a	0.0000a
	2	HB	1.7708a	10.7532b	5.6474b
		T	0.4950a	1.3201a	0.3300a
	3	HB	11.3475b	20.1238bd	16.5964c
		T	3.9290a	12.4161b	3.3062a
2	S1	HB	8.7401b	17.9938d	15.4625c
		T	2.3511a	6.0752b	3.3660a
	2	HB	12.1473b	20.4451e	17.4161d
		T	3.8475a	14.8930c	5.6082a
	3	HB	13.3711b	18.9101c	16.8152c
		T	4.5166a	13.1814b	5.1004a
3	S1	HB	12.2163b	20.3943d	17.3737c
		T	3.9710a	13.7311b	3.7004a
	2	HB	11.9870b	20.5600d	16.8316c
		T	3.1044a	12.4493b	4.9901a
	3	HB	12.5016b	19.2179d	16.5648c
		T	4.8412a	13.7427b	4.6796a

APPENDIX 25: CONTINUED

DATA HARVEST 2; PRIMARY : RFIA

T1	S1	HB	VB	0.000	0.000	0.000
T1	S1	HB	VM	0.000	0.000	0.000
T1	S1	HB	VT	0.000	0.000	0.000
T1	S1	HT	VB	0.000	0.000	0.000
T1	S1	HT	VM	0.000	0.000	0.000
T1	S1	HT	VT	0.000	0.000	0.000
T1	S2	HB	VB	0.000	0.000	0.000
T1	S2	HB	VM	2.000	5.116	2.927
T1	S2	HB	VT	0.000	4.186	0.976
T1	S2	HT	VB	0.000	0.000	0.000
T1	S2	HT	VM	0.000	0.000	0.000
T1	S2	HT	VT	0.000	0.000	0.000
T1	S3	HB	VB	3.608	9.589	1.429
T1	S3	HB	VM	18.041	21.005	19.524
T1	S3	HB	VT	14.948	12.785	13.333
T1	S3	HT	VB	0.000	0.000	0.000
T1	S3	HT	VM	2.062	9.132	1.905
T1	S3	HT	VT	1.031	0.000	0.000
T1	S4	HB	VB	12.442	11.927	12.844
T1	S4	HB	VM	19.816	19.725	18.807
T1	S4	HB	VT	16.590	16.972	18.349
T1	S4	HT	VB	5.991	4.128	3.211
T1	S4	HT	VM	20.737	15.138	13.303
T1	S4	HT	VT	7.373	5.963	6.422
T1	S5	HB	VB	12.621	12.981	12.371
T1	S5	HB	VM	19.903	17.308	19.588
T1	S5	HB	VT	17.476	17.788	15.979
T1	S5	HT	VB	6.796	7.212	5.670
T1	S5	HT	VM	14.563	17.308	17.526
T1	S5	HT	VT	4.369	8.173	6.186
T2	S1	HB	VB	3.293	14.063	11.111
T2	S1	HB	VM	13.171	18.229	14.815
T2	S1	HB	VT	12.195	17.708	11.111
T2	S1	HT	VB	3.415	7.292	4.167
T2	S1	HT	VM	6.829	14.063	12.037
T2	S1	HT	VT	2.927	4.688	1.389
T2	S2	HB	VB	12.019	11.386	12.632
T2	S2	HB	VM	19.712	21.287	21.053
T2	S2	HB	VT	17.308	17.822	17.368
T2	S2	HT	VB	4.808	2.970	4.211
T2	S2	HT	VM	16.827	12.871	14.737
T2	S2	HT	VT	4.808	2.970	4.737
T2	S3	HB	VB	12.500	12.329	13.146
T2	S3	HB	VM	20.290	21.461	19.249
T2	S3	HB	VT	18.357	16.438	16.901
T2	S3	HT	VB	4.831	5.936	7.981
T2	S3	HT	VM	15.942	20.091	19.249
T2	S3	HT	VT	3.382	5.023	5.634
T2	S4	HB	VB	11.628	14.286	13.717
T2	S4	HB	VM	20.000	18.719	19.912
T2	S4	HB	VT	17.209	18.719	15.929
T2	S4	HT	VB	2.326	5.419	5.310
T2	S4	HT	VM	14.884	13.300	19.027
T2	S4	HT	VT	4.186	4.926	6.195
T2	S5	HB	VB	12.919	15.122	14.354
T2	S5	HB	VM	17.703	17.073	19.139
T2	S5	HB	VT	14.833	16.049	16.268
T2	S5	HT	VB	5.742	5.854	7.177
T2	S5	HT	VM	16.746	13.659	16.746
T2	S5	HT	VT	5.742	5.366	5.742
T3	S1	HB	VB	9.137	12.500	11.979
T3	S1	HB	VM	17.766	19.712	19.792
T3	S1	HB	VT	18.782	17.308	18.750
T3	S1	HT	VB	3.553	4.808	4.167
T3	S1	HT	VM	13.152	13.942	11.458
T3	S1	HT	VT	4.569	5.769	4.167
T3	S2	HB	VB	12.077	12.808	12.042
T3	S2	HB	VM	22.222	20.197	19.895
T3	S2	HB	VT	16.425	16.749	16.754
T3	S2	HT	VB	4.348	4.433	3.665
T3	S2	HT	VM	14.976	15.271	11.518
T3	S2	HT	VT	3.382	4.926	4.188

APPENDIX 25: CONTINUED

T3	S3	HB	VB	12.903	10.526	13.839
T3	S3	HB	VM	21.198	22.010	18.750
T3	S3	HB	VT	16.129	17.225	17.411
T3	S3	HT	VB	6.452	4.785	6.250
T3	S3	HT	VM	19.816	16.746	16.518
T3	S3	HT	VT	4.608	4.306	4.911
T3	S4	HB	VB	12.963	13.889	11.905
T3	S4	HB	VM	21.296	19.907	20.000
T3	S4	HB	VT	16.667	17.130	17.143
T3	S4	HT	VB	4.630	5.093	2.857
T3	S4	HT	VM	16.204	16.204	10.476
T3	S4	HT	VT	4.167	4.630	5.238
T3	S5	HB	VB	13.889	14.286	14.035
T3	S5	HB	VM	19.444	20.536	17.105
T3	S5	HB	VT	17.130	16.518	16.667
T3	S5	HT	VB	6.019	4.018	6.140
T3	S5	HT	VM	15.741	17.857	17.544
T3	S5	HT	VT	5.556	4.464	4.825

TEDDYBEAR : HARVEST 2; PRIMARY : RFIA

TSHV MEANS

			B	M	T
T1	S1	HB	0.000 a	0.000 a	0.000 a
		T	0.000 a	0.000 a	0.000 a
	2	HB	0.000 a	3.348 b	1.721 ab
		T	0.000 a	0.000 ao	0.000 ao
	3	HB	4.875 a	19.523 d	13.689 c
		T	0.000 a	4.366 b	0.344 a
	4	HB	12.404 b	19.449 d	17.304 cd
		T	4.443 a	16.393 c	6.586 a
	5	HB	12.658 b	18.933 d	17.081 cd
		T	6.559 a	16.466 c	6.243 a
2	S1	HB	11.155 b	15.465 c	13.672 c
		T	4.958 a	10.976 b	3.001 a
	2	HB	12.012 b	20.684 e	17.499 d
		T	3.996 a	14.812 c	4.172 a
	3	HB	12.678 b	20.333 d	17.232 c
		T	6.249 a	18.427 cd	4.679 a
	4	HB	13.210 b	19.544 d	17.286 c
		T	4.351 a	15.737 c	5.102 a
	5	HB	14.132 b	17.972 c	16.383 bc
		T	6.257 a	15.717 bc	5.616 a
3	S1	HB	11.205 b	19.090 c	18.280 c
		T	4.176 a	11.851 b	4.835 a
	2	HB	12.309 b	20.772 d	16.643 c
		T	4.149 a	13.922 b	4.165 a
	3	HB	12.423 b	20.653 d	16.922 c
		T	5.829 a	17.693 c	4.608 a
	4	HB	12.919 b	20.401 d	16.980 c
		T	4.193 a	14.295 b	4.678 a
	5	HB	14.070 b	19.028 c	16.771 c
		T	5.392 a	17.047 c	4.948 a

APPENDIX 25: CONTINUED

DATA
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HARVEST 3; PRIMARY : RFIA

T1	S1	HB	VB	0.000	0.000	1.415
T1	S1	HB	VM	0.000	0.000	6.132
T1	S1	HB	VT	0.000	0.000	4.717
T1	S1	HT	VB	0.000	0.000	0.000
T1	S1	HT	VM	0.000	0.000	1.415
T1	S1	HT	VT	0.000	0.000	0.000
T1	S2	HB	VB	0.000	0.000	0.000
T1	S2	HB	VM	0.000	7.870	2.830
T1	S2	HB	VT	0.000	1.389	0.943
T1	S2	HT	VB	0.000	0.000	0.000
T1	S2	HT	VM	0.000	0.000	0.000
T1	S2	HT	VT	0.000	0.000	0.000
T1	S3	HB	VB	11.261	11.650	10.698
T1	S3	HB	VM	19.820	19.903	20.000
T1	S3	HB	VT	15.216	17.476	15.349
T1	S3	HT	VB	0.901	2.427	0.000
T1	S3	HT	VM	6.757	11.165	3.721
T1	S3	HT	VT	2.703	4.369	1.395
T1	S4	HB	VB	13.500	12.093	13.462
T1	S4	HB	VM	19.500	22.326	20.192
T1	S4	HB	VT	18.000	17.209	17.788
T1	S4	HT	VB	4.000	4.186	7.212
T1	S4	HT	VM	15.000	16.279	15.865
T1	S4	HT	VT	5.000	3.256	3.365
T1	S5	HB	VB	11.755	12.000	12.207
T1	S5	HB	VM	20.918	19.500	21.596
T1	S5	HB	VT	15.816	18.000	15.962
T1	S5	HT	VB	4.592	5.000	6.103
T1	S5	HT	VM	15.306	15.500	15.493
T1	S5	HT	VT	6.122	6.000	4.695
T2	S1	HB	VB	12.299	10.092	10.860
T2	S1	HB	VM	20.856	21.101	21.267
T2	S1	HB	VT	15.578	17.431	16.290
T2	S1	HT	VB	3.209	5.505	7.240
T2	S1	HT	VM	15.508	11.927	15.837
T2	S1	HT	VT	3.743	4.587	4.977
T2	S2	HB	VB	10.000	11.682	10.870
T2	S2	HB	VM	18.000	20.561	21.739
T2	S2	HB	VT	11.500	16.822	17.391
T2	S2	HT	VB	3.000	5.140	3.261
T2	S2	HT	VM	9.500	14.019	13.587
T2	S2	HT	VT	3.500	3.738	6.522
T2	S3	HB	VB	11.628	12.785	10.577
T2	S3	HB	VM	21.395	20.548	21.635
T2	S3	HB	VT	16.744	16.438	17.308
T2	S3	HT	VB	4.186	7.763	4.327
T2	S3	HT	VM	15.744	15.982	16.346
T2	S3	HT	VT	4.651	4.566	4.327
T2	S4	HB	VB	13.861	13.426	12.150
T2	S4	HB	VM	19.802	20.370	19.626
T2	S4	HB	VT	17.327	16.204	16.355
T2	S4	HT	VB	4.455	5.556	4.673
T2	S4	HT	VM	13.861	18.981	14.953
T2	S4	HT	VT	3.960	5.093	4.206
T2	S5	HB	VB	13.876	13.901	12.745
T2	S5	HB	VM	19.617	19.731	20.588
T2	S5	HB	VT	16.746	15.247	16.176
T2	S5	HT	VB	4.306	5.381	3.922
T2	S5	HT	VM	16.746	14.350	17.157
T2	S5	HT	VT	5.263	4.933	2.941
T3	S1	HB	VB	12.946	12.500	8.989
T3	S1	HB	VM	18.750	20.192	23.034
T3	S1	HB	VT	17.857	17.308	17.978
T3	S1	HT	VB	5.804	4.327	2.809
T3	S1	HT	VM	11.607	13.462	13.483
T3	S1	HT	VT	5.357	4.327	3.933
T3	S2	HB	VB	12.500	12.093	12.935
T3	S2	HB	VM	21.759	20.930	19.900
T3	S2	HB	VT	17.391	17.209	16.915
T3	S2	HT	VB	2.899	4.651	4.975
T3	S2	HT	VM	14.010	16.279	15.423
T3	S2	HT	VT	4.831	3.721	3.980
T3	S3	HB	VB	13.953	12.785	13.478

APPENDIX 25: CONTINUED

T3	S3	HB	VM	19.535	19.176	20.000
T3	S3	HB	VT	17.674	16.438	18.261
T3	S3	HT	VB	5.116	6.849	4.783
T3	S3	HT	VM	16.744	18.721	14.348
T3	S3	HT	VT	4.651	5.936	4.348
T3	S4	HB	VB	13.171	11.374	9.360
T3	S4	HB	VM	20.468	20.379	23.645
T3	S4	HB	VT	16.565	16.586	17.734
T3	S4	HT	VB	6.829	4.265	3.448
T3	S4	HT	VM	18.049	16.588	15.271
T3	S4	HT	VT	4.390	4.739	2.956
T3	S5	HB	VB	13.216	11.823	12.019
T3	S5	HB	VM	19.824	19.704	20.192
T3	S5	HB	VT	15.740	17.734	17.308
T3	S5	HT	VB	6.167	4.926	5.288
T3	S5	HT	VM	16.300	13.300	16.346
T3	S5	HT	VT	7.048	3.448	4.808

TSHV MEANS

			E	M	T
T1	S1	HB	0.472 a	2.044 a	1.572 a
		T	0.000 a	0.472 a	0.000 a
	2	HB	0.000 a	3.567 b	0.777 a
		T	0.000 a	0.000 a	0.000 a
	3	HB	11.203 c	19.908 e	16.347 d
		T	1.109 a	7.214 b	2.822 a
	4	HB	13.018 b	20.673 d	17.666 c
		T	5.133 a	15.715 c	3.874 a
	5	HB	11.980 b	20.672 d	16.593 c
		T	5.232 a	15.433 c	5.606 a
2	S1	HB	11.084 b	21.075 e	16.766 d
		T	5.318 a	14.424 c	4.436 a
	2	HB	10.851 b	20.100 d	15.238 c
		T	3.800 a	12.369 b	4.587 a
	3	HB	11.663 b	21.193 d	16.830 c
		T	5.425 a	16.357 c	4.515 a
	4	HB	13.146 b	19.933 d	16.629 c
		T	4.895 a	15.932 c	4.420 a
	5	HB	13.507 b	19.979 d	16.057 c
		T	4.536 a	16.064 c	4.379 a
3	S1	HB	11.476 b	20.659 d	17.714 c
		T	4.313 a	12.851 b	4.539 a
	2	HB	12.530 b	20.857 d	17.172 c
		T	4.175 a	15.237 c	4.177 a
	3	HB	13.406 b	19.571 d	17.458 c
		T	5.583 a	16.604 c	4.978 a
	4	HB	11.302 b	21.564 d	16.969 c
		T	4.848 a	16.636 c	4.028 a
	5	HB	12.353 b	19.967 d	17.261 c
		T	5.401 a	15.315 c	5.101 a

APPENDIX 25: CONTINUED

DATA

HARVEST 4; PRIMARY : RFIA

T1	S1	HB	VB	0.000	0.000	0.000
T1	S1	HB	VM	0.000	0.000	0.000
T1	S1	HB	VT	0.000	0.000	0.000
T1	S1	HT	VB	0.000	0.000	0.000
T1	S1	HT	VM	0.000	0.000	0.000
T1	S1	HT	VT	0.000	0.000	0.000
T1	S2	HB	VB	0.000	0.000	2.591
T1	S2	HB	VM	5.820	1.370	8.808
T1	S2	HB	VT	2.646	0.913	4.145
T1	S2	HT	VB	0.000	0.000	0.000
T1	S2	HT	VM	0.000	0.000	0.000
T1	S2	HT	VT	0.000	0.000	0.000
T1	S3	HB	VB	11.364	7.212	10.891
T1	S3	HB	VM	20.909	19.231	19.802
T1	S3	HB	VT	15.909	17.308	15.842
T1	S3	HT	VB	0.909	1.442	1.485
T1	S3	HT	VM	5.909	7.212	7.426
T1	S3	HT	VT	3.636	3.365	1.485
T1	S4	HB	VB	12.264	12.727	13.889
T1	S4	HB	VM	21.226	19.545	19.907
T1	S4	HB	VT	16.961	17.727	17.593
T1	S4	HT	VB	4.717	4.545	7.407
T1	S4	HT	VM	19.811	15.909	16.204
T1	S4	HT	VT	5.169	5.909	4.630
T1	S5	HB	VB	14.466	12.500	13.761
T1	S5	HB	VM	15.822	20.192	18.807
T1	S5	HB	VT	17.290	16.827	16.972
T1	S5	HT	VB	5.542	6.731	7.798
T1	S5	HT	VM	17.757	16.827	17.431
T1	S5	HT	VT	5.542	3.846	5.505
T2	S1	HB	VB	11.558	12.150	8.173
T2	S1	HB	VM	19.095	19.626	21.635
T2	S1	HB	VT	18.090	17.290	16.827
T2	S1	HT	VB	5.025	5.607	2.404
T2	S1	HT	VM	14.573	16.355	12.500
T2	S1	HT	VT	3.518	5.140	3.846
T2	S2	HB	VB	12.442	13.303	12.857
T2	S2	HB	VM	20.737	19.725	21.905
T2	S2	HB	VT	16.590	16.514	17.143
T2	S2	HT	VB	3.226	6.422	5.238
T2	S2	HT	VM	12.903	14.220	16.667
T2	S2	HT	VT	5.530	4.587	4.286
T2	S3	HB	VB	14.070	12.844	13.333
T2	S3	HB	VM	20.603	18.349	20.476
T2	S3	HB	VT	17.065	18.349	16.667
T2	S3	HT	VB	5.528	6.881	5.238
T2	S3	HT	VM	15.060	15.136	18.095
T2	S3	HT	VT	3.518	5.505	5.714
T2	S4	HB	VB	11.165	12.806	12.329
T2	S4	HB	VM	21.359	19.212	19.635
T2	S4	HB	VT	16.505	18.227	18.265
T2	S4	HT	VB	5.340	4.926	5.023
T2	S4	HT	VM	16.447	14.778	12.329
T2	S4	HT	VT	5.825	4.926	5.023
T2	S5	HB	VB	12.440	11.275	12.281
T2	S5	HB	VM	20.574	20.588	19.298
T2	S5	HB	VT	15.769	17.647	17.544
T2	S5	HT	VB	3.828	5.392	5.263
T2	S5	HT	VM	16.268	14.216	16.228
T2	S5	HT	VT	3.828	3.922	5.263
T3	S1	HB	VB	13.064	10.476	11.823
T3	S1	HB	VM	16.224	21.429	20.690
T3	S1	HB	VT	17.757	16.667	17.734
T3	S1	HT	VB	5.075	2.857	3.448
T3	S1	HT	VM	10.748	11.905	14.778
T3	S1	HT	VT	4.206	4.286	3.941
T3	S2	HB	VB	10.244	11.905	13.825
T3	S2	HB	VM	21.463	21.429	17.972
T3	S2	HB	VT	18.049	16.667	18.433
T3	S2	HT	VB	2.927	4.762	5.069
T3	S2	HT	VM	11.220	13.810	14.286
T3	S2	HT	VT	3.902	2.857	5.069
T3	S3	HB	VB	11.443	13.462	12.264

APPENDIX 25: CONTINUED

T3	S3	HB	VM	20.398	20.192	19.811
T3	S3	HB	VT	17.413	16.827	17.925
T3	S3	HT	VB	3.900	5.769	5.189
T3	S3	HT	VM	14.428	16.346	16.038
T3	S3	HT	VT	3.900	4.327	3.774
T3	S4	HB	VB	14.410	13.889	12.903
T3	S4	HB	VM	20.067	19.444	17.972
T3	S4	HB	VT	17.031	15.741	17.051
T3	S4	HT	VB	6.114	6.019	5.069
T3	S4	HT	VM	15.721	16.204	15.668
T3	S4	HT	VT	3.930	3.704	6.912
T3	S5	HB	VB	13.876	13.270	13.744
T3	S5	HB	VM	15.162	18.957	20.379
T3	S5	HB	VT	15.746	16.114	16.114
T3	S5	HT	VB	8.134	5.213	6.161
T3	S5	HT	VM	16.600	18.009	18.957
T3	S5	HT	VT	6.220	5.213	4.739

TSHV MEANS

			B	M	T
T1	S1	HB	0.000 a	0.000 a	0.000 a
		T	0.000 a	0.000 a	0.000 a
	2	HB	0.864 ab	5.333 c	2.568 b
		T	0.000 a	0.000 a	0.000 a
	3	HB	9.822 c	19.961 e	16.353 d
		T	1.279 a	6.849 b	2.829 a
	4	HB	12.960 b	20.226 d	17.434 c
		T	5.557 a	17.308 c	5.242 a
	5	HB	13.582 b	18.607 c	17.030 c
		T	7.024 a	17.338 c	5.298 a
2	S1	HB	10.627 b	20.119 e	17.402 d
		T	4.345 a	14.476 c	4.168 a
	2	HB	12.867 b	20.769 d	16.749 c
		T	4.962 a	14.597 b	4.801 a
	3	HB	13.416 b	19.809 d	17.367 c
		T	5.882 a	16.438 c	4.912 a
	4	HB	12.101 b	20.069 e	17.665 d
		T	5.096 a	15.165 c	5.258 a
	5	HB	11.998 b	20.154 d	16.993 c
		T	4.828 a	15.571 c	4.337 a
3	S1	HB	11.794 b	20.114 d	17.386 c
		T	4.127 a	12.477 b	4.144 a
	2	HB	11.991 b	20.268 d	17.716 c
		T	4.253 a	13.105 b	3.943 d
	3	HB	12.389 b	20.134 d	17.388 c
		T	4.979 a	15.604 c	4.027 a
	4	HB	13.734 b	19.168 d	16.607 c
		T	5.734 a	15.864 c	4.849 a
	5	HB	13.630 b	19.173 d	16.325 c
		T	6.503 a	18.542 d	5.391 a

APPENDIX 25: CONTINUED

DATA
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HARVEST 5; PRIMARY : RFIA

T1	S1	HB	VB	0.000	0.000	0.000
T1	S1	HB	VM	0.000	0.000	0.000
T1	S1	HB	VT	0.000	0.000	0.000
T1	S1	HT	VB	0.000	0.000	0.000
T1	S1	HT	VM	0.000	0.000	0.000
T1	S1	HT	VT	0.000	0.000	0.000
T1	S2	HB	VB	0.000	0.000	2.336
T1	S2	HB	VM	0.000	0.000	8.411
T1	S2	HB	VT	0.000	0.000	3.271
T1	S2	HT	VB	0.000	0.000	0.000
T1	S2	HT	VM	0.000	0.000	0.000
T1	S2	HT	VT	0.000	0.000	0.000
T1	S3	HB	VB	6.057	10.849	9.589
T1	S3	HB	VM	19.905	19.811	19.635
T1	S3	HB	VT	15.114	13.208	16.438
T1	S3	HT	VB	0.000	1.415	0.000
T1	S3	HT	VM	7.583	6.132	6.393
T1	S3	HT	VT	2.844	2.830	0.913
T1	S4	HB	VB	12.919	12.683	12.438
T1	S4	HB	VM	20.574	19.512	19.900
T1	S4	HB	VT	15.709	17.561	16.418
T1	S4	HT	VB	6.220	6.341	3.980
T1	S4	HT	VM	17.703	15.122	14.925
T1	S4	HT	VT	5.263	4.878	4.478
T1	S5	HB	VB	13.839	14.634	13.744
T1	S5	HB	VM	20.009	20.486	17.536
T1	S5	HB	VT	16.904	16.585	16.588
T1	S5	HT	VB	7.143	5.854	6.161
T1	S5	HT	VM	19.643	13.171	15.166
T1	S5	HT	VT	4.404	3.902	6.161
T2	S1	HB	VB	13.639	11.650	9.179
T2	S1	HB	VM	21.463	21.845	14.493
T2	S1	HB	VT	17.073	16.505	11.594
T2	S1	HT	VB	4.390	3.883	2.899
T2	S1	HT	VM	14.146	17.961	11.111
T2	S1	HT	VT	2.927	4.369	2.415
T2	S2	HB	VB	13.876	10.952	12.299
T2	S2	HB	VM	18.600	21.429	20.321
T2	S2	HB	VT	18.102	17.619	16.578
T2	S2	HT	VB	6.220	1.905	4.813
T2	S2	HT	VM	14.833	14.286	10.695
T2	S2	HT	VT	3.828	3.810	5.348
T2	S3	HB	VB	11.521	13.084	14.097
T2	S3	HB	VM	20.276	21.026	19.824
T2	S3	HB	VT	17.512	16.355	15.859
T2	S3	HT	VB	5.069	3.738	6.608
T2	S3	HT	VM	17.972	18.692	18.502
T2	S3	HT	VT	4.608	4.673	4.405
T2	S4	HB	VB	13.270	14.423	10.837
T2	S4	HB	VM	18.009	20.192	20.690
T2	S4	HB	VT	15.640	16.827	17.241
T2	S4	HT	VB	8.531	5.288	5.419
T2	S4	HT	VM	16.403	14.423	13.793
T2	S4	HT	VT	5.213	4.808	4.926
T2	S5	HB	VB	12.919	14.833	12.676
T2	S5	HB	VM	22.010	18.660	20.657
T2	S5	HB	VT	16.268	17.225	16.901
T2	S5	HT	VB	3.828	6.220	5.634
T2	S5	HT	VM	15.769	15.789	15.962
T2	S5	HT	VT	4.306	4.785	4.695
T3	S1	HB	VB	12.037	12.432	10.714
T3	S1	HB	VM	21.296	18.378	21.939
T3	S1	HB	VT	17.593	19.459	16.837
T3	S1	HT	VB	3.704	3.784	3.571
T3	S1	HT	VM	15.278	14.054	14.796
T3	S1	HT	VT	3.704	5.405	4.592
T3	S2	HB	VB	14.019	11.735	12.060
T3	S2	HB	VM	18.692	20.918	20.603
T3	S2	HB	VT	15.808	17.347	16.583
T3	S2	HT	VB	5.140	7.143	3.518
T3	S2	HT	VM	14.953	16.837	11.558
T3	S2	HT	VT	4.673	4.082	4.523

APPENDIX 25: CONTINUED

T3	S3	HB	VB	13.122	10.784	13.000
T3	S3	HB	VM	16.290	19.118	20.500
T3	S3	HB	VT	16.742	16.667	17.500
T3	S3	HT	VB	4.072	4.902	4.000
T3	S3	HT	VM	17.195	17.647	13.000
T3	S3	HT	VT	5.430	4.412	4.000
T3	S4	HB	VB	12.621	12.183	12.683
T3	S4	HB	VM	18.447	19.797	21.463
T3	S4	HB	VT	16.990	17.259	16.585
T3	S4	HT	VB	4.834	5.584	5.366
T3	S4	HT	VM	10.600	14.721	18.537
T3	S4	HT	VT	2.913	4.061	3.902
T3	S5	HB	VB	13.333	14.220	11.607
T3	S5	HB	VM	16.571	20.183	20.089
T3	S5	HB	VT	15.607	15.596	17.411
T3	S5	HT	VB	5.714	9.174	5.804
T3	S5	HT	VM	13.333	17.890	15.625
T3	S5	HT	VT	2.857	6.422	5.804

TSHV MEANS
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			B	M	T
T1	S1	HB	0.000 a	0.000 a	0.000 a
		T	0.000 a	0.000 a	0.000 a
	2	HB	0.779 ab	2.804 b	1.090 ab
		T	0.000 a	0.000 a	0.000 a
	3	HB	9.498 c	19.764 e	15.253 d
		T	0.472 a	6.703 b	2.196 a
	4	HB	12.600 b	19.996 d	16.589 c
		T	5.514 a	15.917 c	4.873 a
	5	HB	14.073 b	19.371 d	16.712 c
		T	6.366 a	15.993 bc	4.843 a
2	S1	HB	11.496 b	19.267 d	15.057 c
		T	3.724 a	14.406 c	3.237 a
	2	HB	12.376 b	20.137 d	17.459 c
		T	4.313 a	13.271 b	4.328 a
	3	HB	12.901 b	20.376 d	16.575 c
		T	5.138 a	18.369 cd	4.562 a
	4	HB	12.844 b	19.630 d	16.569 c
		T	6.413 a	15.567 c	4.982 a
	5	HB	13.476 b	20.442 d	16.798 c
		T	5.227 a	15.847 c	4.595 a
3	S1	HB	11.728 b	20.538 e	17.963 d
		T	3.686 a	14.709 c	4.567 a
	2	HB	12.605 b	20.071 d	16.606 c
		T	5.267 a	14.449 bc	4.426 a
	3	HB	12.302 b	18.636 d	16.970 cd
		T	4.325 a	15.947 c	4.614 a
	4	HB	12.496 c	19.902 e	16.945 d
		T	5.268 b	14.646 c	3.625 a
	5	HB	13.054 b	19.615 d	16.558 c
		T	6.897 a	15.616 c	5.028 a

APPENDIX 25: CONTINUED

DATA
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HARVEST 6; PRIMARY : RFIA

T1	S1	HB	VB	0.000	0.000	0.000
T1	S1	HB	VM	0.000	0.000	0.000
T1	S1	HB	VT	0.000	0.000	0.000
T1	S1	HT	VB	0.000	0.000	0.000
T1	S1	HT	VM	0.000	0.000	0.000
T1	S1	HT	VT	0.000	0.000	0.000
T1	S2	HB	VB	0.000	0.000	0.000
T1	S2	HB	VM	0.000	0.000	0.000
T1	S2	HB	VT	0.000	0.000	0.000
T1	S2	HT	VB	0.000	0.000	0.000
T1	S2	HT	VM	0.000	0.000	0.000
T1	S2	HT	VT	0.000	0.000	0.000
T1	S3	HB	VB	7.834	6.393	10.526
T1	S3	HB	VM	19.355	19.178	19.737
T1	S3	HB	VT	15.590	15.525	17.105
T1	S3	HT	VB	1.362	0.913	1.754
T1	S3	HT	VM	8.756	4.110	8.333
T1	S3	HT	VT	3.226	1.370	2.193
T1	S4	HB	VB	11.111	12.000	12.953
T1	S4	HB	VM	20.833	19.000	18.135
T1	S4	HB	VT	16.204	18.000	17.098
T1	S4	HT	VB	4.167	4.000	5.699
T1	S4	HT	VM	16.056	15.000	13.472
T1	S4	HT	VT	5.556	5.000	4.663
T1	S5	HB	VB	12.163	12.925	12.121
T1	S5	HB	VM	21.320	19.728	21.212
T1	S5	HB	VT	16.751	17.687	18.182
T1	S5	HT	VB	2.538	6.803	3.030
T1	S5	HT	VM	12.163	17.687	12.121
T1	S5	HT	VT	3.533	4.082	6.061
T2	S1	HB	VB	13.171	8.122	10.798
T2	S1	HB	VM	19.024	19.289	21.127
T2	S1	HB	VT	13.659	13.706	15.493
T2	S1	HT	VB	5.854	4.061	4.225
T2	S1	HT	VM	14.634	13.706	15.023
T2	S1	HT	VT	4.878	1.015	1.878
T2	S2	HB	VB	10.837	12.558	12.150
T2	S2	HB	VM	20.690	19.535	21.028
T2	S2	HB	VT	18.227	17.674	15.888
T2	S2	HT	VB	3.941	4.186	3.271
T2	S2	HT	VM	13.300	17.674	15.888
T2	S2	HT	VT	4.433	5.116	4.673
T2	S3	HB	VB	13.274	12.857	12.385
T2	S3	HB	VM	19.027	20.952	18.349
T2	S3	HB	VT	16.814	17.143	16.055
T2	S3	HT	VB	7.522	4.286	6.881
T2	S3	HT	VM	15.929	17.619	16.972
T2	S3	HT	VT	4.867	4.286	5.046
T2	S4	HB	VB	13.023	11.940	12.981
T2	S4	HB	VM	20.000	21.393	17.308
T2	S4	HB	VT	16.744	16.915	16.827
T2	S4	HT	VB	4.166	3.980	5.288
T2	S4	HT	VM	15.814	13.930	15.385
T2	S4	HT	VT	4.166	4.478	4.808
T2	S5	HB	VB	12.796	12.440	12.315
T2	S5	HB	VM	20.853	18.182	21.182
T2	S5	HB	VT	16.114	17.225	16.749
T2	S5	HT	VB	3.791	7.177	5.419
T2	S5	HT	VM	12.322	14.354	14.778
T2	S5	HT	VT	2.370	4.306	4.433
T3	S1	HB	VB	12.264	12.745	12.162
T3	S1	HB	VM	21.226	20.098	19.595
T3	S1	HB	VT	15.094	17.647	16.216
T3	S1	HT	VB	5.660	5.882	4.730
T3	S1	HT	VM	13.679	13.725	14.189
T3	S1	HT	VT	3.774	3.431	3.378
T3	S2	HB	VB	13.433	13.265	10.891
T3	S2	HB	VM	16.905	19.386	20.297
T3	S2	HB	VT	15.920	17.857	18.317
T3	S2	HT	VB	4.478	3.571	3.960

APPENDIX 25: CONTINUED

T3	S2	HT	VM	13.930	15.306	10.891
T3	S2	HT	VT	5.473	3.571	2.970
T3	S3	HB	VB	12.963	12.381	11.737
T3	S3	HB	VM	20.370	21.905	18.310
T3	S3	HB	VT	16.204	16.667	17.840
T3	S3	HT	VB	6.944	4.286	4.695
T3	S3	HT	VM	15.036	20.000	15.023
T3	S3	HT	VT	4.167	2.857	3.286
T3	S4	HB	VB	12.727	12.953	13.004
T3	S4	HB	VM	18.636	21.244	20.179
T3	S4	HB	VT	17.273	15.026	16.592
T3	S4	HT	VB	5.455	4.663	6.278
T3	S4	HT	VM	17.727	17.617	16.143
T3	S4	HT	VT	4.091	4.145	3.139
T3	S5	HB	VB	12.207	12.381	10.680
T3	S5	HB	VM	20.657	19.524	21.845
T3	S5	HB	VT	17.371	18.095	16.019
T3	S5	HT	VB	6.573	4.762	4.369
T3	S5	HT	VM	15.493	13.810	17.476
T3	S5	HT	VT	5.164	6.667	4.369

TSHV MEANS

			B	M	T
T1	S1	HB	0.000 a	0.000 a	0.000 a
		T	0.000 a	0.000 a	0.000 a
	2	HB	0.000 a	0.000 a	0.000 a
		T	0.000 a	0.000 a	0.000 a
	3	HB	8.251 b	19.423 d	16.407 c
		T	1.350 a	7.066 b	2.263 a
	4	HB	12.021 b	19.323 d	17.101 c
		T	4.622 a	15.509 c	5.073 a
	5	HB	12.410 b	20.753 d	17.540 c
		T	4.124 a	13.997 b	4.565 a
2	S1	HB	10.697 c	19.813 e	14.286 d
		T	4.713 b	14.454 d	2.590 a
	2	HB	11.848 b	20.418 d	17.263 c
		T	3.799 a	15.621 c	4.741 a
	3	HB	12.839 b	19.443 d	16.671 c
		T	6.230 a	16.840 c	4.733 a
	4	HB	12.648 b	19.567 d	16.629 c
		T	4.485 a	15.043 c	4.490 a
	5	HB	12.517 b	20.072 d	16.696 c
		T	5.462 a	13.818 b	3.703 a
3	S1	HB	12.390 c	20.306 e	16.319 d
		T	5.424 b	13.805 c	3.528 a
	2	HB	12.530 b	19.530 d	17.365 c
		T	4.003 a	13.376 b	4.005 a
	3	HB	12.360 c	20.195 e	16.904 d
		T	5.308 b	17.693 d	3.437 a
	4	HB	12.895 b	20.020 d	16.297 c
		T	5.465 a	17.162 c	3.792 a
	5	HB	11.756 b	20.675 d	17.162 c
		T	5.235 a	15.593 c	5.400 a

APPENDIX 26: PERCENTAGE DISTRIBUTION OF FERTILE OVULES "C" IN 6 POSITIONS WITHIN SECONDARY HEADS = RFIA

TEDDYBEAR : HARVEST 13 SECONDARY : RFIA

DATA
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T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	0.0000
T1	S2	HT	VT	0.0000	0.0000	0.0000
T1	S3	HB	VB	1.4851	1.1173	0.5181
T1	S3	HB	VM	7.9208	10.0559	6.2902
T1	S3	HB	VT	5.4455	7.2626	3.6269
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.0000	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T2	S1	HB	VB	5.7471	2.5476	1.1173
T2	S1	HB	VM	15.5172	17.1975	14.5251
T2	S1	HB	VT	14.3678	14.6497	10.0559
T2	S1	HT	VB	1.1494	0.0000	0.0000
T2	S1	HT	VM	5.1724	6.3694	0.0000
T2	S1	HT	VT	1.7241	0.6369	0.5587
T2	S2	HB	VB	5.6400	2.5126	0.0440
T2	S2	HB	VM	7.6023	13.5676	20.3297
T2	S2	HB	VT	6.4327	9.5477	19.7802
T2	S2	HT	VB	2.3392	0.0000	0.5495
T2	S2	HT	VM	5.2632	4.5226	4.3956
T2	S2	HT	VT	2.3392	1.5075	1.6484
T2	S3	HB	VB	5.6122	6.6293	3.5176
T2	S3	HB	VM	15.7755	20.9756	19.0955
T2	S3	HB	VT	9.1837	14.6341	11.5578
T2	S3	HT	VB	0.0000	0.0000	0.0000
T2	S3	HT	VM	3.0612	1.9512	0.0000
T2	S3	HT	VT	1.0204	0.4876	0.0000
T3	S1	HB	VB	2.1053	10.1010	2.6455
T3	S1	HB	VM	7.3684	19.1919	6.9947
T3	S1	HB	VT	5.2632	15.1515	6.8783
T3	S1	HT	VB	0.0000	0.5051	0.0000
T3	S1	HT	VM	0.5263	3.0303	1.5873
T3	S1	HT	VT	0.0000	0.0000	0.5291
T3	S2	HB	VB	5.7143	2.9851	0.0000
T3	S2	HB	VM	15.7143	14.9254	5.0000
T3	S2	HB	VT	13.6095	12.4376	4.3750
T3	S2	HT	VB	1.4286	0.0000	0.0000
T3	S2	HT	VM	4.7619	3.4826	0.0000
T3	S2	HT	VT	0.4762	1.9900	0.0000
T3	S3	HB	VB	6.1907	7.3298	5.1546
T3	S3	HB	VM	21.6579	20.4188	16.0412
T3	S3	HB	VT	15.6470	15.1832	11.8557
T3	S3	HT	VB	0.0000	0.5236	0.0000
T3	S3	HT	VM	3.2707	5.2356	2.5773
T3	S3	HT	VT	1.0929	1.0471	0.5155

APPENDIX 26: CONTINUED

TSHV MEANS

			B	M	T
T1	S1	HB	0.0000[a]	0.0000[a]	0.0000[a]
		T	0.0000[a]	0.0000[a]	0.0000[a]
	2	HB	0.0000[a]	0.0000[a]	0.0000[a]
		T	0.0000a	0.0000a	0.0000a
	3	HB	1.0402a	0.7556c	5.4450b
		T	0.0000a	0.0000a	0.0000a
2	S1	HB	3.1374[a]	15.7466[b]	13.0245[b]
		T	0.3831a	3.6473a	0.9732a
	2	HB	4.6015b	13.8333c	11.9202c
		T	0.9629a	4.7271b	1.8317ab
	3	HB	5.3197[b]	17.9469[d]	11.7919[c]
		T	0.0000a	1.6708a	0.5027a
3	S1	HB	4.9506b	11.8517c	9.0977c
		T	0.1664a	1.7146a	0.1764a
	2	HB	2.6998[a]	11.6799[b]	10.2074[b]
		T	0.4762a	2.7462a	0.8221a
	3	HB	6.6937c	20.1060e	14.2953d
		T	0.1745a	3.6972bc	0.8652ab

APPENDIX 26: CONTINUED

DATA
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HARVEST 2; SECONDARY : RFIA

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	0.0000
T1	S2	HT	VT	0.0000	0.0000	0.0000
T1	S3	HB	VB	0.0000	0.0000	0.0000
T1	S3	HB	VM	4.7357	5.9701	1.6949
T1	S3	HB	VT	2.3669	2.4876	1.6949
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.0000	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T1	S4	HB	VB	6.1111	7.5581	7.1038
T1	S4	HB	VM	21.1111	18.6047	16.3934
T1	S4	HB	VT	15.3333	18.0233	16.3934
T1	S4	HT	VB	0.0000	1.1628	1.6393
T1	S4	HT	VM	5.5556	8.1395	6.1967
T1	S4	HT	VT	1.6667	3.4884	3.8251
T1	S5	HB	VB	10.9091	9.2784	6.9820
T1	S5	HB	VM	20.0000	21.1340	23.9521
T1	S5	HB	VT	17.2727	18.5567	16.1677
T1	S5	HT	VB	3.4545	3.6082	1.1976
T1	S5	HT	VM	15.9091	10.8247	7.7844
T1	S5	HT	VT	3.9091	2.5773	1.7964
T2	S1	HB	VB	5.5556	8.4337	4.0230
T2	S1	HB	VM	17.9012	21.6867	22.9885
T2	S1	HB	VT	9.8765	16.8675	14.9425
T2	S1	HT	VB	0.6173	2.4096	1.1494
T2	S1	HT	VM	8.0247	8.4337	6.3218
T2	S1	HT	VT	2.4691	3.0120	1.7241
T2	S2	HB	VB	7.9545	7.1429	11.1111
T2	S2	HB	VM	20.4545	23.8095	16.6667
T2	S2	HB	VT	17.0455	19.6429	16.3333
T2	S2	HT	VB	1.1364	1.1905	4.4444
T2	S2	HT	VM	9.0909	10.7143	10.5556
T2	S2	HT	VT	3.4091	3.5714	2.7778
T2	S3	HB	VB	10.4712	5.5172	7.5145
T2	S3	HB	VM	21.9895	19.3103	21.3873
T2	S3	HB	VT	17.2775	20.0000	19.6532
T2	S3	HT	VB	3.1414	0.0000	1.7341
T2	S3	HT	VM	13.6126	6.2759	9.2486
T2	S3	HT	VT	4.7120	2.7586	2.8902
T2	S4	HB	VB	2.7174	7.5581	8.2873
T2	S4	HB	VM	14.6739	20.9302	19.3370
T2	S4	HB	VT	13.0435	19.1860	19.3370
T2	S4	HT	VB	0.5435	1.7442	1.6575
T2	S4	HT	VM	4.8913	9.8837	10.4972
T2	S4	HT	VT	1.6304	4.6512	3.8674
T2	S5	HB	VB	10.7692	9.1837	3.0955
T2	S5	HB	VM	19.4872	20.9184	17.1975
T2	S5	HB	VT	17.9487	17.8571	12.1019
T2	S5	HT	VB	4.6154	2.5510	3.1847
T2	S5	HT	VM	15.8974	10.2041	11.4650
T2	S5	HT	VT	4.6154	3.5714	2.5478
T3	S1	HB	VB	1.9231	6.6667	8.4848
T3	S1	HB	VM	19.2308	15.1515	23.6364
T3	S1	HB	VT	16.0256	15.7576	15.7576
T3	S1	HT	VB	0.0000	2.4242	1.2121
T3	S1	HT	VM	7.0513	6.0606	12.7273
T3	S1	HT	VT	3.8462	4.2424	3.6364

T3	S2	HB	VB	5.9459	3.9735	5.4878
T3	S2	HB	VM	21.0811	22.5166	17.6829
T3	S2	HB	VT	19.4595	18.5430	11.5854
T3	S2	HT	VB	1.6216	0.6623	0.6098
T3	S2	HT	VM	9.1892	9.9338	7.3171
T3	S2	HT	VT	4.3243	3.3113	3.0488
T3	S3	HB	VB	10.8108	6.4211	5.6911
T3	S3	HB	VM	21.0811	23.1579	22.7642
T3	S3	HB	VT	18.3784	16.9474	19.5122
T3	S3	HT	VB	3.2432	2.6316	2.4390
T3	S3	HT	VM	11.8919	11.5789	10.5691

T3	S3	HT	VT	2.7027	3.6842	2.4390
T3	S4	HB	VB	5.6497	9.3567	6.9364
T3	S4	HB	VM	23.1638	20.4678	23.1214
T3	S4	HB	VT	16.9492	18.1287	19.0751
T3	S4	HT	VB	1.1299	2.3392	1.1561
T3	S4	HT	VM	9.0395	9.9415	12.1387
T3	S4	HT	VT	3.3898	4.6784	4.0462
T3	S5	HB	VB	8.0000	5.5556	11.5000
T3	S5	HB	VM	21.1429	24.0741	20.5000
T3	S5	HB	VT	20.0000	19.1358	17.0000
T3	S5	HT	VB	1.1429	0.6173	2.5000
T3	S5	HT	VM	8.5714	11.1111	12.0000
T3	S5	HT	VT	2.8571	1.2346	3.5000

TSHV MEANS
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			B	M	T
T1	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.0000 a	4.1329 a	2.1831 a
		T	0.0000 a	0.0000 a	0.0000 a
	4	HB	6.9244 b	16.7031 c	17.5633 c
		T	0.9340 a	7.2973 b	2.9934 a
	5	HB	9.7232 b	21.6954 d	17.3324 c
		T	3.4201 a	11.5061 b	3.4276 a
2	S1	HB	6.0041 b	20.6568 d	13.8955 c
		T	1.3921 a	7.5934 b	2.4018 a
	2	HB	8.7362 b	20.3102 c	16.3405 c
		T	2.2571 a	10.1203 b	3.2528 a
	3	HB	7.6343 b	20.8957 e	16.9769 d
		T	1.6252 a	10.3790 c	3.4536 a
	4	HB	6.1876 b	16.3137 c	17.1868 c
		T	1.3150 a	6.4241 b	3.3830 a
	5	HB	8.3495 b	19.2010 e	15.9693 d
		T	3.4504 a	12.5222 c	3.5762 a
3	S1	HB	5.6915 b	19.3395 e	15.8469 d
		T	1.2121 a	6.6131 c	3.9083 b
	2	HB	5.1358 b	20.4269 e	16.5293 d
		T	0.9645 a	8.8133 c	3.5615 b
	3	HB	8.3076 b	22.3344 e	18.9460 d
		T	2.7713 a	11.3406 c	2.9420 a
	4	HB	7.3143 a	22.2510 e	16.0510 d
		T	1.5417 a	10.3733 c	4.0381 a
	5	HB	8.3519 b	21.9056 d	18.7119 c
		T	1.4200 a	10.5608 b	2.5306 a

APPENDIX 26: CONTINUED

DATA HARVEST 3; SECONDARY : RFIA

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	0.0000
T1	S2	HT	VT	0.0000	0.0000	0.0000
T1	S3	HB	VB	0.0000	1.1173	0.0000
T1	S3	HB	VM	0.0000	7.6212	0.0000
T1	S3	HB	VT	0.0000	5.0279	0.0000
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.5587	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T1	S4	HB	VB	5.4422	6.5561	6.4865
T1	S4	HB	VM	14.9660	22.4599	16.2162
T1	S4	HB	VT	10.8844	19.2513	12.4324
T1	S4	HT	VB	1.3605	1.0043	1.6216
T1	S4	HT	VM	5.4422	10.0952	5.4054
T1	S4	HT	VT	0.6803	1.0695	1.6216
T1	S5	HB	VB	9.0361	10.6145	6.5089
T1	S5	HB	VM	22.2892	21.2291	15.3846
T1	S5	HB	VT	17.4699	16.4356	12.4260
T1	S5	HT	VB	1.2048	2.7933	1.7751
T1	S5	HT	VM	9.6306	10.0559	5.9172
T1	S5	HT	VT	4.2169	3.9106	2.3669
T2	S1	HB	VB	9.2593	6.0241	6.5217
T2	S1	HB	VM	21.6049	21.0843	22.2826
T2	S1	HB	VT	16.0494	18.0723	17.9348
T2	S1	HT	VB	5.0864	1.6072	2.7174
T2	S1	HT	VM	14.6148	10.2410	10.8696
T2	S1	HT	VT	0.1728	5.4217	3.8043
T2	S2	HB	VB	9.1954	10.5263	9.2308
T2	S2	HB	VM	24.1379	21.0526	22.5641
T2	S2	HB	VT	20.1149	16.5414	10.4103
T2	S2	HT	VB	2.2969	3.0075	2.0513
T2	S2	HT	VM	11.4943	9.7744	10.7692
T2	S2	HT	VT	5.4403	3.0075	3.5897
T2	S3	HB	VB	9.5506	4.2169	7.5000
T2	S3	HB	VM	20.7865	24.6988	22.5000
T2	S3	HB	VT	19.1011	16.6747	16.8750
T2	S3	HT	VB	1.6854	0.6024	1.8750
T2	S3	HT	VM	10.6742	12.0482	9.3750
T2	S3	HT	VT	3.3708	1.2048	4.3750
T2	S4	HB	VB	9.4118	5.2023	10.5991
T2	S4	HB	VM	20.5862	22.5434	20.2765
T2	S4	HB	VT	14.1176	16.7630	17.9724
T2	S4	HT	VB	2.9412	1.7341	2.3041
T2	S4	HT	VM	11.7647	6.9364	9.2166
T2	S4	HT	VT	5.5294	3.4682	5.9908
T2	S5	HB	VB	10.0559	6.3564	6.8571
T2	S5	HB	VM	19.5531	23.1214	22.2857
T2	S5	HB	VT	19.5531	20.2312	19.4286
T2	S5	HT	VB	2.7933	0.5780	1.1429
T2	S5	HT	VM	6.3799	9.2486	10.2857
T2	S5	HT	VT	5.3520	2.6902	4.0000
T3	S1	HB	VB	9.6361	7.7381	6.0606
T3	S1	HB	VM	21.8579	19.0476	21.2121
T3	S1	HB	VT	16.3934	14.2857	17.5758
T3	S1	HT	VB	3.2707	3.5714	1.8182
T3	S1	HT	VM	12.5683	11.3095	9.0909
T3	S1	HT	VT	6.0109	4.1667	3.0303

APPENDIX 26: CONTINUED

T3	S2	HB	VB	4.9609	7.5670	3.9767
T3	S2	HB	VM	24.2236	24.6649	21.5116
T3	S2	HB	VT	16.1491	17.6378	17.4419
T3	S2	HT	VB	0.0000	1.0811	2.3256
T3	S2	HT	VM	12.4224	11.3514	6.9767
T3	S2	HT	VT	3.7267	2.7027	1.1628
T3	S3	HB	VB	6.7405	6.4746	9.3750
T3	S3	HB	VM	22.0859	19.2090	21.8750
T3	S3	HB	VT	19.0164	16.0791	10.6667
T3	S3	HT	VB	0.6135	2.8249	2.6042
T3	S3	HT	VM	10.4294	9.0395	12.5000
T3	S3	HT	VT	2.4540	3.3898	3.2083
T3	S4	HB	VB	9.6301	6.0109	3.3254
T3	S4	HB	VM	21.6579	24.0437	23.6686
T3	S4	HB	VT	10.0328	19.6721	19.5266
T3	S4	HT	VB	2.7322	1.0929	0.5917
T3	S4	HT	VM	9.2896	12.0219	11.2426
T3	S4	HT	VT	2.7322	2.7322	1.1834
T3	S5	HB	VB	9.4737	6.3799	7.1038
T3	S5	HB	VM	21.0526	22.3464	23.4973
T3	S5	HB	VT	17.3604	19.5531	19.1257
T3	S5	HT	VB	4.7368	2.2346	1.0929
T3	S5	HT	VM	10.8421	10.6145	11.4754
T3	S5	HT	VT	4.7368	3.9106	4.3716

TSHV MEANS
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			B	M	T
T1	S1	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.0000a	0.0000a
	2	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.0000a	0.0000a
	3	HB	0.3724a	2.6071a	1.6760a
		T	0.0000a	0.1862a	0.0000a
	4	HB	6.6283b	17.8807d	14.1694c
		T	1.5288a	7.1809b	1.1238a
	5	HB	8.7196b	19.6343d	16.1106c
		T	1.9244a	6.5372b	3.4981a
2	S1	HB	7.2684b	21.6573e	17.3522d
		T	2.5370a	11.9751c	5.1330b
	2	HB	9.6508b	22.5849d	17.6889c
		T	2.4526c	10.6793b	3.3485a
	3	HB	7.0891b	22.6618e	16.2169d
		T	1.3876a	10.6991c	2.9635a
	4	HB	8.4044b	21.1360d	16.2643c
		T	2.3265a	9.3059b	4.3295a
	5	HB	7.7571b	21.6534c	19.7376c
		T	1.5047a	9.3047b	3.4140a
3	S1	HB	7.8763b	20.7059e	16.0650d
		T	2.8894a	10.9896c	4.4026a
	2	HB	6.5044b	23.5334e	17.1429d
		T	1.1356a	10.2502c	2.5307a
	3	HB	8.1993b	21.0566e	17.9214d
		T	2.0142a	10.6563c	3.6841a
	4	HB	7.0575b	23.1901e	19.0772d
		T	1.4723a	10.8514c	2.2160a
	5	HB	8.3191b	22.2968e	16.6824d
		T	2.6861a	12.9773c	4.3397a

APPENDIX 26: CONTINUED

DATA HARVEST 4; SECONDARY : RFIA

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	0.0000	1.7751
T1	S2	HB	VT	0.0000	0.0000	3.5503
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	1.1834
T1	S2	HT	VT	0.0000	0.0000	1.1834
T1	S3	HB	VB	0.0000	1.6216	0.0000
T1	S3	HB	VM	0.0000	5.4054	0.0000
T1	S3	HB	VT	0.0000	2.7027	0.0000
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.0000	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T1	S4	HB	VB	0.2147	6.9364	5.9140
T1	S4	HB	VM	15.6192	23.6994	16.1290
T1	S4	HB	VT	13.5593	19.6532	12.9032
T1	S4	HT	VB	1.6949	1.7341	2.1505
T1	S4	HT	VM	0.7797	11.5607	6.0645
T1	S4	HT	VT	4.5198	4.6462	3.2258
T1	S5	HB	VB	5.9365	6.6667	6.6957
T1	S5	HB	VM	21.7877	23.6889	20.6522
T1	S5	HB	VT	17.6771	19.4444	19.0217
T1	S5	HT	VB	1.6760	1.1111	2.7174
T1	S5	HT	VM	12.2905	12.2222	9.7826
T1	S5	HT	VT	5.0279	2.7778	3.2609
T2	S1	HB	VB	8.3333	5.6604	4.9451
T2	S1	HB	VM	21.6667	20.7547	24.1758
T2	S1	HB	VT	17.7778	16.9811	20.8791
T2	S1	HT	VB	1.6667	1.2579	0.5495
T2	S1	HT	VM	10.0000	6.2893	10.4396
T2	S1	HT	VT	4.4444	4.4025	2.1978
T2	S2	HB	VB	6.6957	12.6829	7.8652
T2	S2	HB	VM	21.1957	17.5610	21.3483
T2	S2	HB	VT	16.4763	16.0976	16.5393
T2	S2	HT	VB	5.2609	6.3415	2.8090
T2	S2	HT	VM	9.2391	12.1951	11.2360
T2	S2	HT	VT	1.0870	2.4390	2.2472
T2	S3	HB	VB	7.6471	11.4286	12.5000
T2	S3	HB	VM	22.3529	20.9524	22.0000
T2	S3	HB	VT	17.6471	16.6667	16.0000
T2	S3	HT	VB	1.1765	3.8095	3.5000
T2	S3	HT	VM	11.7647	14.7619	16.5000
T2	S3	HT	VT	1.7647	3.3333	3.0000
T2	S4	HB	VB	6.5106	9.0426	6.1111
T2	S4	HB	VM	21.6065	21.2766	21.6667
T2	S4	HB	VT	16.6170	19.1489	16.8889
T2	S4	HT	VB	1.5957	2.1277	2.2222
T2	S4	HT	VM	11.7021	12.2340	11.1111
T2	S4	HT	VT	5.1915	1.5957	3.3333
T2	S5	HB	VB	6.5227	7.0588	6.0000
T2	S5	HB	VM	22.1591	20.5882	20.5714
T2	S5	HB	VT	16.1818	20.0000	16.8571
T2	S5	HT	VB	1.1364	3.5294	1.7143
T2	S5	HT	VM	11.3636	6.8235	9.1429
T2	S5	HT	VT	2.8409	2.3529	3.4286
T3	S1	HB	VB	5.5901	1.7341	9.2784
T3	S1	HB	VM	20.4969	23.1214	20.1031
T3	S1	HB	VT	16.0124	15.6069	16.5567
T3	S1	HT	VB	0.0000	0.0000	3.0928
T3	S1	HT	VM	6.6957	5.7803	13.4021

APPENDIX 26: CONTINUED

T3	S1	HT	VT	1.6634	1.7341	3.1546
T3	S2	HB	VB	2.4845	9.9476	7.1823
T3	S2	HB	VM	24.6447	19.6953	22.0994
T3	S2	HB	VT	19.2547	17.6010	18.2320
T3	S2	HT	VB	0.0000	3.0649	2.2099
T3	S2	HT	VM	9.9379	12.5654	11.0497
T3	S2	HT	VT	3.1056	4.7120	2.7624
T3	S3	HB	VB	7.9365	8.1081	3.0847
T3	S3	HB	VM	22.2222	21.6216	22.5989
T3	S3	HB	VT	16.9312	18.3784	16.0791
T3	S3	HT	VB	1.5873	1.6216	0.5650
T3	S3	HT	VM	11.6402	9.7297	10.7345
T3	S3	HT	VT	3.7037	2.1622	3.9548
T3	S4	HB	VB	0.6735	7.8212	3.0488
T3	S4	HB	VM	20.4082	21.7877	22.5610
T3	S4	HB	VT	17.3469	18.4356	18.2927
T3	S4	HT	VB	3.0612	1.0760	0.0000
T3	S4	HT	VM	10.7143	11.7318	12.1951
T3	S4	HT	VT	3.5714	1.0760	3.6585
T3	S5	HB	VB	8.6398	9.1463	3.8511
T3	S5	HB	VM	20.9945	20.7317	20.7447
T3	S5	HB	VT	19.3370	16.9024	19.1489
T3	S5	HT	VB	3.8674	2.4390	0.0000
T3	S5	HT	VM	11.6022	11.5854	10.1064
T3	S5	HT	VT	2.2099	2.4390	3.7234

TSHV MEANS
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			B	M	T
T1	S1	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.0000a	0.0000a
	2	HB	0.0000a	0.5917a	1.1834a
		T	0.0000a	0.3945a	0.3945a
	3	HB	0.5405a	1.6018a	0.9009a
		T	0.0000a	0.0000a	0.0000a
	4	HB	6.3550b	16.5492e	15.3719d
		T	1.8599a	6.8016c	3.9306a
	5	HB	8.1003b	22.1096e	16.7811d
		T	1.8348a	11.4318c	3.6889a
2	S1	HB	6.3129c	22.1991f	18.5460e
		T	1.1580a	6.9096d	3.6616b
	2	HB	9.7479b	20.0350c	17.7050c
		T	4.1371a	10.6901b	1.9244a
	3	HB	10.5252b	21.7604e	17.4379d
		T	2.8287a	14.3422c	2.6993a
	4	HB	7.6881b	21.5839e	18.8649d
		T	1.9819a	11.6824c	2.7069a
	5	HB	7.8605b	21.1063c	19.0130c
		T	2.1267a	9.7767b	2.8741a
3	S1	HB	5.5342b	21.2405e	17.3920d
		T	1.0309a	9.2927c	2.9174a
	2	HB	6.5301b	22.2798e	16.4292d
		T	1.9583a	11.1844c	3.5267a
	3	HB	7.0431b	22.1476e	17.7962d
		T	1.2580a	10.7015c	3.2736a
	4	HB	6.5145b	21.5856e	16.0251d
		T	1.5791a	11.5471c	2.9686a
	5	HB	7.9457b	20.8236d	19.1295d
		T	2.1021a	11.0900c	2.7908a

APPENDIX 26: CONTINUED

DATA HARVEST 5; SECONDARY : RFIA

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	1.1236	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.5618	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	5.4878	0.0000
T1	S2	HB	VT	0.0000	2.4390	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	1.8293	0.0000
T1	S2	HT	VT	0.0000	0.6098	0.0000
T1	S3	HB	VB	0.5405	2.0942	0.0000
T1	S3	HB	VM	5.9459	14.6597	3.6842
T1	S3	HB	VT	5.4054	11.5183	2.1053
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	2.6178	0.0000
T1	S3	HT	VT	0.0000	0.5236	0.0000
T1	S4	HB	VB	5.7143	7.6471	5.2980
T1	S4	HB	VM	13.1429	21.1765	19.8675
T1	S4	HB	VT	13.4286	17.0588	16.5430
T1	S4	HT	VB	0.0000	2.3529	0.0000
T1	S4	HT	VM	2.8571	6.2353	7.9470
T1	S4	HT	VT	1.7143	3.5294	4.6358
T1	S5	HB	VB	10.7477	7.5472	7.6087
T1	S5	HB	VM	21.0280	21.3836	21.7391
T1	S5	HB	VT	16.8224	20.1256	17.9348
T1	S5	HT	VB	4.2056	0.6289	2.1739
T1	S5	HT	VM	13.5514	10.0629	11.4130
T1	S5	HT	VT	4.2056	3.1447	5.4348
T2	S1	HB	VB	12.1951	4.2945	6.4327
T2	S1	HB	VM	20.9756	21.4724	19.2982
T2	S1	HB	VT	17.0732	17.7914	16.1287
T2	S1	HT	VB	4.3902	0.6135	1.7544
T2	S1	HT	VM	12.1951	10.4294	8.7719
T2	S1	HT	VT	3.4146	4.2945	4.0936
T2	S2	HB	VB	11.2821	5.7143	6.2500
T2	S2	HB	VM	22.5641	20.5714	23.7500
T2	S2	HB	VT	16.4615	17.7143	20.6250
T2	S2	HT	VB	3.0769	1.1429	1.2500
T2	S2	HT	VM	13.3333	11.4286	6.1250
T2	S2	HT	VT	3.0769	2.2857	2.5000
T2	S3	HB	VB	11.4429	10.2564	9.9476
T2	S3	HB	VM	20.3980	19.4872	21.9895
T2	S3	HB	VT	17.9104	17.9487	16.3246
T2	S3	HT	VB	2.9851	3.0769	3.1414
T2	S3	HT	VM	12.4378	12.3077	13.7068
T2	S3	HT	VT	3.4826	3.5897	4.1885
T2	S4	HB	VB	5.5556	5.1429	6.0241
T2	S4	HB	VM	23.4568	22.8571	22.8916
T2	S4	HB	VT	17.9012	16.6571	16.0723
T2	S4	HT	VB	1.2346	0.5714	0.6024
T2	S4	HT	VM	9.2593	10.6571	9.0361
T2	S4	HT	VT	3.0864	3.4286	3.6145
T2	S5	HB	VB	4.3478	4.6667	5.8235
T2	S5	HB	VM	20.4969	22.0000	21.1765
T2	S5	HB	VT	19.8758	16.0000	20.0000
T2	S5	HT	VB	0.6211	0.6667	1.1765
T2	S5	HT	VM	9.9379	9.3333	10.0000
T2	S5	HT	VT	2.4845	4.0000	4.7059
T3	S1	HB	VB	6.6102	6.4846	4.9383
T3	S1	HB	VM	22.1591	22.4242	23.4568
T3	S1	HB	VT	17.6136	16.1818	19.7531
T3	S1	HT	VB	2.8409	2.4242	0.6173
T3	S1	HT	VM	10.2273	8.4848	9.2593

APPENDIX 26: CONTINUED

T3	S1	HT	VT	3.9773	3.6364	3.7037
T3	S2	HB	VB	6.1798	7.9545	6.2353
T3	S2	HB	VM	23.0337	23.2955	20.5882
T3	S2	HB	VT	16.5393	15.9091	17.6471
T3	S2	HT	VB	1.1236	3.4091	2.3529
T3	S2	HT	VM	11.7978	13.0682	10.0000
T3	S2	HT	VT	1.1236	3.4091	1.7647
T3	S3	HB	VB	5.9524	1.2903	3.8674
T3	S3	HB	VM	23.8095	25.1613	24.3094
T3	S3	HB	VT	20.2381	18.7097	18.2320
T3	S3	HT	VB	1.7857	0.0000	0.5525
T3	S3	HT	VM	9.5238	8.3871	11.0497
T3	S3	HT	VT	1.7857	3.2258	1.6575
T3	S4	HB	VB	6.7568	7.0968	7.7844
T3	S4	HB	VM	22.9730	15.4839	21.5569
T3	S4	HB	VT	16.6919	17.4194	19.1617
T3	S4	HT	VB	1.3514	1.9355	1.7964
T3	S4	HT	VM	6.7838	7.7419	7.7844
T3	S4	HT	VT	4.0541	1.9355	3.5928
T3	S5	HB	VB	9.6958	10.9890	8.1967
T3	S5	HB	VM	21.6750	20.6791	20.7650
T3	S5	HB	VT	16.6667	17.0330	17.4863
T3	S5	HT	VB	2.0833	6.0440	2.7322
T3	S5	HT	VM	13.0208	13.7363	9.8361
T3	S5	HT	VT	3.1250	4.3956	2.1858

TSHV MEANS
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T	S	H	B	M	T
T1	S1	HB	0.0000a	0.3745a	0.0000a
		T	0.0000a	0.1873a	0.0000a
	2	HB	0.0000a	1.8293b	0.8130b
		T	0.0000a	0.6098a	0.2033a
	3	HB	0.8783a	6.0956b	6.3430b
		T	0.0000a	0.8726a	0.1745a
	4	HB	6.2198[1]c	10.0623[3]d	17.0101[5]d
		T	0.7843[2]a	0.3465[4]c	3.2932[6]b
	5	HB	8.6345	21.3836	16.2943
		T	2.3362	11.6758	4.2617
2	S1	HB	7.6408b	20.5821e	17.6644d
		T	2.2527a	10.4655c	3.9342a
	2	HB	7.7488b	22.2952e	10.9336d
		T	1.6233a	10.9623c	2.6209a
	3	HB	10.5489b	20.6249e	16.0613d
		T	3.0678a	13.4841c	3.7536a
	4	HB	5.5742b	23.0665e	16.2769d
		T	0.8026a	9.7175c	3.3765b
	5	HB	5.9430b	21.2245d	19.2919d
		T	0.8214a	9.7571c	3.7301b
3	S1	HB	6.7471b	22.6800e	16.5162d
		T	1.9608a	9.3238d	3.7724a
	2	HB	7.4565b	22.3058e	17.3652d
		T	2.2952a	11.6220c	2.0991a
	3	HB	3.7034b	24.4267e	19.0599d
		T	0.7794a	9.6535c	2.2230ab
	4	HB	7.2127b	20.0046c	17.8243c
		T	1.6944a	6.1034b	3.1941a
	5	HB	9.6939b	21.1730e	17.0620d
		T	3.6198a	12.1977c	3.2355a

APPENDIX 26: CONTINUED

DATA HARVEST 6; SECONDARY : RFIA

T1	S1	HB	VB	0.0000	2.1858	0.0000
T1	S1	HB	VM	0.0000	6.0109	0.0000
T1	S1	HB	VT	0.0000	4.3716	0.0000
T1	S1	HT	VB	0.0000	0.5464	0.0000
T1	S1	HT	VM	0.0000	1.6393	0.0000
T1	S1	HT	VT	0.0000	1.0929	0.0000
T1	S2	HB	VB	0.0000	0.0000	0.0000
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	0.0000
T1	S2	HT	VT	0.0000	0.0000	0.0000
T1	S3	HB	VB	0.0000	0.0000	0.0000
T1	S3	HB	VM	0.0000	2.4752	1.9802
T1	S3	HB	VT	0.0000	0.9901	1.4851
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.0000	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T1	S4	HB	VB	5.9703	6.4656	6.1798
T1	S4	HB	VM	23.9130	20.6349	23.5955
T1	S4	HB	VT	16.8478	16.4021	17.9775
T1	S4	HT	VB	1.6304	3.1746	1.1236
T1	S4	HT	VM	6.1522	8.9947	9.5506
T1	S4	HT	VT	1.6304	3.7037	2.8090
T1	S5	HB	VB	6.4103	11.3990	6.7416
T1	S5	HB	VM	16.0256	21.7617	23.5955
T1	S5	HB	VT	17.9467	15.5440	17.9775
T1	S5	HT	VB	0.0000	2.0725	1.1236
T1	S5	HT	VM	3.8462	6.6083	6.4270
T1	S5	HT	VT	0.0000	3.1088	2.8090
T2	S1	HB	VB	8.7719	7.7381	3.5714
T2	S1	HB	VM	21.0526	21.4286	21.4286
T2	S1	HB	VT	13.4503	15.4762	16.4524
T2	S1	HT	VB	1.7544	1.7857	0.0000
T2	S1	HT	VM	9.3567	11.3095	6.9286
T2	S1	HT	VT	1.7544	4.7619	1.1905
T2	S2	HB	VB	7.9096	6.5227	7.8947
T2	S2	HB	VM	20.9040	21.5909	21.0526
T2	S2	HB	VT	13.3842	17.0455	16.9474
T2	S2	HT	VB	1.6949	2.2727	3.6842
T2	S2	HT	VM	10.1695	11.3636	9.4737
T2	S2	HT	VT	2.6249	3.9773	3.1579
T2	S3	HB	VB	7.6067	6.5866	9.0909
T2	S3	HB	VM	20.6522	20.9581	21.8182
T2	S3	HB	VT	17.3913	17.9641	16.9697
T2	S3	HT	VB	1.0870	1.1976	3.0303
T2	S3	HT	VM	9.7826	10.7784	11.5152
T2	S3	HT	VT	2.1739	3.5928	3.0303
T2	S4	HB	VB	5.6824	5.3571	6.3799
T2	S4	HB	VM	22.8758	23.2143	22.9050
T2	S4	HB	VT	13.9542	19.0476	14.5251
T2	S4	HT	VB	0.0000	1.1905	1.1173
T2	S4	HT	VM	10.4575	7.1429	11.1732
T2	S4	HT	VT	0.6536	1.1905	2.2346
T2	S5	HB	VB	12.6214	11.9318	9.6045
T2	S5	HB	VM	20.3883	17.0455	21.4689
T2	S5	HB	VT	15.0485	16.4773	16.0791
T2	S5	HT	VB	4.3689	3.4091	1.6949
T2	S5	HT	VM	11.1650	7.9545	7.9096
T2	S5	HT	VT	2.9126	7.3864	2.2599
T3	S1	HB	VB	10.6742	5.4217	9.5238
T3	S1	HB	VM	17.4157	21.0843	20.6349
T3	S1	HB	VT	16.5393	19.2771	16.5185
T3	S1	HT	VB	5.9326	2.4096	3.1746
T3	S1	HT	VM	11.7978	7.2289	12.1693

APPENDIX 26: CONTINUED

T3	S1	HT	VT	0.7416	5.4217	4.2328
T3	S2	HB	VB	9.6591	4.0268	7.8652
T3	S2	HB	VM	21.5909	23.4899	24.1573
T3	S2	HB	VT	19.3162	16.7919	17.4157
T3	S2	HT	VB	2.2727	0.0000	1.1236
T3	S2	HT	VM	10.7955	8.7248	10.1124
T3	S2	HT	VT	0.6102	2.0134	2.2472
T3	S3	HB	VB	9.0426	8.9005	5.8140
T3	S3	HB	VM	19.6809	20.4188	22.6744
T3	S3	HB	VT	19.1489	16.8482	16.8605
T3	S3	HT	VB	3.1915	2.6178	1.1628
T3	S3	HT	VM	10.6383	9.9476	9.8837
T3	S3	HT	VT	3.7234	4.1885	2.9070
T3	S4	HB	VB	9.1837	6.0606	0.7042
T3	S4	HB	VM	20.4082	21.6182	23.9437
T3	S4	HB	VT	17.6571	13.9394	19.0141
T3	S4	HT	VB	2.0408	2.4242	0.0000
T3	S4	HT	VM	10.7143	10.9091	7.0423
T3	S4	HT	VT	2.5510	3.6364	0.0000
T3	S5	HB	VB	8.0214	10.7692	11.1732
T3	S5	HB	VM	22.4599	21.5385	16.9944
T3	S5	HB	VT	17.6471	18.4615	19.5531
T3	S5	HT	VB	1.0695	2.5641	2.7933
T3	S5	HT	VM	12.2995	10.2564	9.4972
T3	S5	HT	VT	2.6738	2.0513	3.9106

TEDDYBEAR : HARVEST 6;SECONDARY : RFIA

TSHV MEANS
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			B	M	T
T1	S1	HB	0.7236a	2.0036a	1.4572a
		T	0.1821a	0.5464a	0.3643a
	2	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.0000a	0.0000a
	3	HB	0.0000a	1.4851a	0.8251a
		T	0.0000a	0.0000a	0.0000a
	4	HB	8.6745b	22.7145d	17.0758c
		T	1.9762a	6.8991b	2.7144a
	5	HB	3.1836b	20.4609d	17.1568c
		T	1.0654a	7.0271b	1.9726a
2	S1	HB	6.6938b	21.3033e	15.7930d
		T	1.1800a	9.8649c	2.5689a
	2	HB	5.1090b	21.1825d	17.4590c
		T	2.5506a	10.3356b	3.3200a
	3	HB	7.7621b	21.1428e	17.4417d
		T	1.7716a	10.6921c	2.9323a
	4	HB	6.5398b	22.9964e	17.5090d
		T	0.7693a	9.5912c	1.3596a
	5	HB	11.3859b	19.6342d	16.5350c
		T	3.1576a	9.0097b	4.1863a
3	S1	HB	3.5399b	19.7117c	16.7763c
		T	3.1723a	10.3967b	5.4654a
	2	HB	7.1837c	23.0794f	16.5066e
		T	1.1321a	9.8775d	3.6929b
	3	HB	7.9190b	20.9247d	16.2859c
		T	2.3240a	10.1566b	3.6063a
	4	HB	5.3162c	22.0567e	16.9369d
		T	1.4334a	9.5552b	2.0625a
	5	HB	9.9379b	20.9976c	16.5539c
		T	2.1423a	10.6844b	2.3766a

APPENDIX 27: PERCENTAGE DISTRIBUTION OF RELATIVE STERILITY (PERCENTAGE OF THE STERILE OVULES, "D + R" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) IN 6 POSITIONS WITHIN PRIMARY HEADS = RSAA

TEDDYBEAR : HARVEST 1; PRIMARY : RSAA

DATA
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T1	S1	HB	VB	12.0773	2.3923	1.9900
T1	S1	HB	VM	20.2879	0.0000	0.0000
T1	S1	HB	VT	14.0097	0.0000	0.0000
T1	S1	HT	VB	8.2802	5.7416	6.9652
T1	S1	HT	VM	4.8309	4.3062	4.9751
T1	S1	HT	VT	7.2404	6.6124	8.9552
T1	S2	HB	VB	12.5561	11.3861	14.9780
T1	S2	HB	VM	10.7623	4.9505	10.5727
T1	S2	HB	VT	14.3498	6.4158	12.7753
T1	S2	HT	VB	8.9686	7.4257	11.8943
T1	S2	HT	VM	9.4170	12.3762	18.5022
T1	S2	HT	VT	13.4529	10.6911	12.3348
T1	S3	HB	VB	3.4653	1.6349	2.3585
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	1.4851	0.0000	0.0000
T1	S3	HT	VB	5.9406	5.5046	7.5472
T1	S3	HT	VM	9.4059	1.3761	5.6604
T1	S3	HT	VT	9.4059	7.3394	10.3774
T2	S1	HB	VB	3.0457	3.5354	2.5000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	5.5838	5.5556	6.0000
T2	S1	HT	VM	7.6142	6.5859	2.0000
T2	S1	HT	VT	8.6294	9.0909	8.5000
T2	S2	HB	VB	2.4631	2.3585	2.3697
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.4187	6.6038	8.1611
T2	S2	HT	VM	1.4778	2.8302	7.5829
T2	S2	HT	VT	7.3892	8.9623	8.5308
T2	S3	HB	VB	1.6100	2.1930	2.3041
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	4.9774	5.2632	5.5300
T2	S3	HT	VM	1.3575	1.7544	0.9217
T2	S3	HT	VT	8.5973	8.7719	9.2166
T3	S1	HB	VB	2.3810	3.0769	3.2258
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	4.7619	5.6410	5.0691
T3	S1	HT	VM	2.8571	7.1795	4.1475
T3	S1	HT	VT	9.0476	9.2308	8.7558
T3	S2	HB	VB	2.3041	3.2110	2.8986
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.4587	0.0000
T3	S2	HT	VB	4.1475	5.0459	5.7971
T3	S2	HT	VM	3.2258	4.1284	8.6957
T3	S2	HT	VT	8.2949	8.7156	8.6957
T3	S3	HB	VB	2.3474	1.3953	1.8868
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.2254	6.0465	5.1887
T3	S3	HT	VM	4.6948	1.3953	1.8868
T3	S3	HT	VT	8.9202	8.3721	8.4906

APPENDIX 27: CONTINUED

TEDDYBEAR : HARVEST 1; PRIMARY : RSAA

TSHV MEANS

			B	M	T
T1	S1	HB	5.4866a	6.7633a	4.6699a
		T	6.3290a	4.7041a	6.2713a
	2	HB	12.9734bc	6.7618a	11.8470abc
		T	9.4295ab	13.4318c	12.2263abc
	3	HB	2.5529ab	0.0000a	0.4950a
		T	6.3308c	5.4808bc	9.0409c
2	S1	HB	3.0270ab	0.0000a	0.0000a
		T	5.7131bc	6.0667bc	6.7401c
	2	HB	2.3971ab	0.0000a	0.0000a
		T	6.0612cd	5.9637bc	6.2941d
	3	HB	2.1024ab	0.0000a	0.0000a
		T	5.2568b	1.3445a	6.8619c
3	S1	HB	2.6946ab	0.0000a	0.0000a
		T	5.1574b	4.7260b	9.0114c
	2	HB	2.8046ab	0.0000a	0.1529a
		T	4.9968bc	5.3500bc	6.5687c
	3	HB	1.8765ab	0.0000e	0.0000a
		T	5.1535bc	2.6590ab	6.5943c

APPENDIX 27: CONTINUED

DATA

HARVEST 2; PRIMARY : RSAA

T1	S1	HB	VB	15.5779	15.5172	14.9321
T1	S1	HB	VM	21.1055	24.1379	21.7195
T1	S1	HB	VT	16.0905	16.3908	17.1946
T1	S1	HT	VB	11.0553	9.1954	10.4072
T1	S1	HT	VM	21.1055	20.6897	21.7195
T1	S1	HT	VT	13.0653	12.0690	14.0271
T1	S2	HB	VB	15.0000	16.2791	15.1220
T1	S2	HB	VM	20.0000	14.4186	18.5366
T1	S2	HB	VT	18.0000	14.4186	17.5610
T1	S2	HT	VB	10.5000	11.6279	9.2683
T1	S2	HT	VM	22.0000	19.5349	21.4634
T1	S2	HT	VT	12.5000	14.4186	14.1463
T1	S3	HB	VB	9.7938	5.0228	12.8571
T1	S3	HB	VM	0.5155	0.0000	3.3333
T1	S3	HB	VT	2.5773	3.6530	3.8095
T1	S3	HT	VB	12.8866	11.6721	9.5238
T1	S3	HT	VM	15.9794	12.7854	20.9524
T1	S3	HT	VT	13.9175	12.7854	13.3333
T1	S4	HB	VB	1.8433	1.6349	2.7523
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	4.6083	6.6807	8.2569
T1	S4	HT	VM	0.4608	1.8349	5.9633
T1	S4	HT	VT	7.8341	6.7156	9.6330
T1	S5	HB	VB	1.9417	1.9231	1.5464
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	4.8544	4.3269	5.6701
T1	S5	HT	VM	5.3398	0.0000	1.0309
T1	S5	HT	VT	8.7379	7.2115	8.7629
T2	S1	HB	VB	2.9268	1.5625	2.3148
T2	S1	HB	VM	0.9756	0.5208	0.0000
T2	S1	HB	VT	1.4634	0.0000	0.9259
T2	S1	HT	VB	6.8293	5.7292	5.5556
T2	S1	HT	VM	7.3171	4.6875	7.4074
T2	S1	HT	VT	10.7317	9.8958	11.1111
T2	S2	HB	VB	2.6846	2.4752	2.6316
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.7692	6.4356	6.3158
T2	S2	HT	VM	3.3654	6.9307	4.7368
T2	S2	HT	VT	9.1346	8.9109	8.9474
T2	S3	HB	VB	2.4155	1.8265	1.4085
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.2802	5.9361	4.2254
T2	S3	HT	VM	3.8647	1.8265	0.9390
T2	S3	HT	VT	9.6618	8.2192	7.9812
T2	S4	HB	VB	2.7907	1.9704	1.3274
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.1163	6.4039	7.5221
T2	S4	HT	VM	4.6512	4.9261	1.3274
T2	S4	HT	VT	8.8372	9.3596	7.9646
T2	S5	HB	VB	1.9139	1.9512	1.4354
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	5.2632	6.8293	5.2632
T2	S5	HT	VM	0.9569	3.4146	0.4785
T2	S5	HT	VT	8.1340	7.6049	7.6555
T3	S1	HB	VB	5.0761	2.4038	3.6458
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.0761	6.2500	6.2500
T3	S1	HT	VM	10.1523	5.2885	8.3333
T3	S1	HT	VT	10.6599	8.6538	10.9375

T3	S2	HB	VB	2.8966	2.4631	3.6649
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	5.7971	6.4039	5.2356
T3	S2	HT	VM	6.2802	3.9409	6.3770
T3	S2	HT	VT	8.6957	8.6670	8.3770
T3	S3	HB	VB	1.8433	3.3493	2.2321
T3	S3	HB	VM	0.0000	0.4785	0.0000
T3	S3	HB	VT	0.4608	0.0000	0.0000
T3	S3	HT	VB	5.0691	4.7847	6.2500
T3	S3	HT	VM	2.3041	6.2201	3.1250
T3	S3	HT	VT	8.2949	6.6124	8.9286
T3	S4	HB	VB	1.8519	2.3148	2.3810
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	6.4815	6.4815	7.1429
T3	S4	HT	VM	6.0165	3.2407	9.0476
T3	S4	HT	VT	6.7963	8.7963	8.5714
T3	S5	HB	VB	1.8519	1.3393	1.7544
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	5.5556	6.2500	5.7018
T3	S5	HT	VM	0.9259	0.8929	0.8772
T3	S5	HT	VT	6.7963	8.4821	6.3333

TSHV MEANS
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			B	M	T
T1	S1	HB	15.3424 c	22.3210 e	17.8919 d
		T	10.2193 a	21.1715 f	13.0538 b
	2	HB	15.4670 bc	17.6517 d	16.6599 cd
		T	10.4654 a	20.9994 f	13.6883 b
	3	HB	9.2246 c	1.2829 a	3.3466 b
		T	11.4275 d	16.5724 f	13.3454 f
	4	HB	2.1435 b	0.0000 a	0.0000 a
		T	6.5820 c	2.7530 b	8.7276 d
	5	HB	1.8037 ab	0.0000 a	0.0000 a
		T	4.9505 c	2.1236 b	8.2374 d
2	S1	HB	2.2680 a	0.4968 a	0.7964 a
		T	6.0380 b	6.4707 b	10.5796 c
	2	HB	2.6638 b	0.0000 a	0.0000 a
		T	6.1736 c	5.0110 c	8.9976 d
	3	HB	1.8835 ab	0.0000 a	0.0000 a
		T	5.4805 c	2.2101 b	8.6207 c
	4	HB	2.0295 b	0.0000 a	0.0000 a
		T	6.3474 c	3.6349 b	8.7205 c
	5	HB	1.7668 a	0.0000 a	0.0000 a
		T	5.7852 b	1.6167 a	7.8648 c
3	S1	HB	3.7086 b	0.0000 a	0.0000 a
		T	5.8587 c	7.9247 d	10.0837 f
	2	HB	3.0088 b	0.0000 a	0.0000 a
		T	5.8122 c	6.1993 c	6.6465 d
	3	HB	2.4749 b	0.1595 a	0.1536 a
		T	5.3679 c	3.8831 bc	6.6120 d
	4	HB	2.1825 b	0.0000 a	0.0000 a
		T	6.7019 c	6.1023 c	8.7213 d
	5	HB	1.6485 a	0.0000 a	0.0000 a
		T	5.8358 b	0.8987 a	6.5373 a

APPENDIX 27: CONTINUED

DATA HARVEST 3; PRIMARY : RSAA

T1	S1	HB	VB	15.2264	15.6879	13.2075
T1	S1	HB	VM	20.3046	20.5607	15.5660
T1	S1	HB	VT	16.2741	17.7570	12.2642
T1	S1	HT	VB	10.6599	12.1495	10.3774
T1	S1	HT	VM	20.3046	20.5607	20.2830
T1	S1	HT	VT	15.2264	13.0841	14.6226
T1	S2	HB	VB	14.2857	15.7407	15.5660
T1	S2	HB	VM	22.2222	12.5000	17.9245
T1	S2	HB	VT	17.9894	16.2037	16.9811
T1	S2	HT	VB	6.4656	12.5000	11.7925
T1	S2	HT	VM	22.2222	20.3704	20.7547
T1	S2	HT	VT	14.6148	13.4259	13.2075
T1	S3	HB	VB	4.5045	3.8835	4.6512
T1	S3	HB	VM	0.0000	0.4854	0.4651
T1	S3	HB	VT	1.6018	0.0000	2.3256
T1	S3	HT	VB	10.6108	9.7087	11.6279
T1	S3	HT	VM	13.0631	9.2233	10.7442
T1	S3	HT	VT	12.1622	9.7087	13.0233
T1	S4	HB	VB	2.5000	2.7907	2.8846
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.4651	0.4808
T1	S4	HT	VB	7.5000	6.0465	4.8077
T1	S4	HT	VM	4.5000	6.0465	4.3269
T1	S4	HT	VT	9.5000	9.3023	9.6154
T1	S5	HB	VB	2.5510	2.5000	1.8779
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	6.1224	6.5000	5.1643
T1	S5	HT	VM	6.1224	4.5000	5.1643
T1	S5	HT	VT	7.6531	6.0000	8.4507
T2	S1	HB	VB	2.1390	2.2936	3.1674
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	6.9519	5.9633	3.6199
T2	S1	HT	VM	5.3476	9.1743	5.8824
T2	S1	HT	VT	9.0909	8.7156	6.5973
T2	S2	HB	VB	2.5000	2.6037	3.2609
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	6.0000	5.6075	5.4348
T2	S2	HT	VM	9.5000	7.0093	5.9783
T2	S2	HT	VT	9.0000	6.6785	6.1522
T2	S3	HB	VB	2.3256	2.2831	3.3654
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.0465	4.1096	5.2885
T2	S3	HT	VM	5.1163	3.6530	6.2500
T2	S3	HT	VT	6.3721	8.2192	8.1731
T2	S4	HB	VB	1.9802	1.6519	3.2710
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.9406	6.0185	5.6075
T2	S4	HT	VM	5.4455	1.3889	5.1402
T2	S4	HT	VT	6.9109	8.3333	6.8785
T2	S5	HB	VB	1.9139	1.7937	1.9608
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.6906	6.2780	6.3725
T2	S5	HT	VM	2.6708	3.1390	2.9412
T2	S5	HT	VT	6.6124	6.0717	6.8235
T3	S1	HB	VB	2.2321	2.6846	3.9326
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.4808	0.0000
T3	S1	HT	VB	6.2500	6.2500	5.0562
T3	S1	HT	VM	6.2500	6.7308	10.1124
T3	S1	HT	VT	9.6214	9.6154	8.9888

APPENDIX 27: CONTINUED

T3	S2	HB	VB	2.8966	2.3256	2.4876
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	6.2802	6.5116	5.4726
T3	S2	HT	VM	5.2126	5.1163	4.9751
T3	S2	HT	VT	6.6957	6.8372	8.9552
T3	S3	HB	VB	2.3256	2.2831	3.0435
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	6.5116	5.0226	5.6522
T3	S3	HT	VM	2.3256	0.4566	5.6522
T3	S3	HT	VT	6.8372	7.3059	9.1304
T3	S4	HB	VB	0.9756	3.3175	3.9409
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	3.3659	5.2133	4.9261
T3	S4	HT	VM	2.9268	4.2654	8.3744
T3	S4	HT	VT	6.2927	6.5308	9.3596
T3	S5	HB	VB	1.7621	2.9557	2.4038
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.4053	4.9261	5.7692
T3	S5	HT	VM	2.2026	6.8966	4.3269
T3	S5	HT	VT	8.3700	9.3596	6.6538

TSHV MEANS
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			E	M	T
T1	S1	HB	14.7746b	16.8105c	16.0964b
		T	11.0623a	20.3828c	14.3117b
	2	HB	15.1975b	17.5469c	17.0581c
		T	10.9194a	21.1158d	13.8161b
	3	HB	4.3464b	0.3169a	1.3758a
		T	10.7158c	13.0102d	11.6314cd
	4	HB	2.7251b	0.0000a	0.3153a
		T	6.1181c	4.9578c	9.4726d
	5	HB	2.3097b	0.0000a	0.0000a
		T	5.9269c	5.2623c	8.0346d
2	S1	HB	2.5333b	0.0000a	0.0000a
		T	5.5117c	0.8014c	6.8013d
	2	HB	2.8549b	0.0000a	0.0000a
		T	5.6808c	7.4959cd	6.6769d
	3	HB	2.6580b	0.0000a	0.0000a
		T	5.1482c	3.0064c	6.2548d
	4	HB	2.3677b	0.0000a	0.0000a
		T	5.6555c	3.9915b	6.7076d
	5	HB	1.8895ab	0.0000a	0.0000a
		T	6.4497c	2.9837b	6.5026d
3	S1	HB	3.0164b	0.0000a	0.1603a
		T	5.6521c	7.6977d	9.4752d
	2	HB	2.5706a	0.0000a	0.0000a
		T	6.0882c	6.1013c	6.8294d
	3	HB	2.5507b	0.0000a	0.0000a
		T	5.7239c	2.8115b	6.4245d
	4	HB	2.7447b	0.0000a	0.0000a
		T	5.1634c	3.1869c	6.7277d
	5	HB	2.3739b	0.0000a	0.0000a
		T	5.0335c	4.4754a	6.7945d

APPENDIX 27: CONTINUED

DATA
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HARVEST 4; PRIMARY : RSAA

T1	S1	HB	VB	15.9420	14.8571	15.3110
T1	S1	HB	VM	21.2560	21.7143	22.0096
T1	S1	HB	VT	17.3913	16.2857	17.2249
T1	S1	HT	VB	11.5942	9.7143	11.0048
T1	S1	HT	VM	21.2560	21.7143	22.0096
T1	S1	HT	VT	12.5604	13.7143	12.4402
T1	S2	HB	VB	15.3439	16.4384	12.9534
T1	S2	HB	VM	15.3439	17.6082	12.9534
T1	S2	HB	VT	15.3439	17.3516	13.4715
T1	S2	HT	VB	10.5820	12.7854	10.3627
T1	S2	HT	VM	21.1640	19.1781	21.7617
T1	S2	HT	VT	13.7566	14.1553	12.9534
T1	S3	HB	VB	4.5455	8.1731	4.9505
T1	S3	HB	VM	0.0000	0.9615	0.0000
T1	S3	HB	VT	1.3636	0.9615	1.9802
T1	S3	HT	VB	10.9091	8.6538	10.8911
T1	S3	HT	VM	15.0000	12.9808	12.3762
T1	S3	HT	VT	9.5455	12.5000	12.8713
T1	S4	HB	VB	2.3565	2.7273	1.8519
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	5.1321	6.3636	4.6296
T1	S4	HT	VM	1.8868	3.6364	3.2407
T1	S4	HT	VT	8.4906	9.0909	6.7963
T1	S5	HB	VB	1.4019	2.4038	1.8349
T1	S5	HB	VM	0.4673	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	6.5421	3.8462	5.0459
T1	S5	HT	VM	0.9346	2.4038	0.9174
T1	S5	HT	VT	8.4112	9.1346	8.2569
T2	S1	HB	VB	2.5126	2.8037	3.8462
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	6.0302	5.6075	3.8462
T2	S1	HT	VM	5.5276	4.2056	7.2115
T2	S1	HT	VT	9.0452	8.6785	9.1346
T2	S2	HB	VB	2.3041	1.3761	2.3810
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.9908	5.9633	5.7143
T2	S2	HT	VM	7.8341	4.5872	4.2857
T2	S2	HT	VT	6.7558	8.7156	8.5714
T2	S3	HB	VB	2.0101	2.2936	1.9048
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.0302	4.5872	6.1905
T2	S3	HT	VM	4.5226	3.6697	1.9048
T2	S3	HT	VT	8.5427	8.7156	8.0952
T2	S4	HB	VB	2.4272	3.4483	2.7397
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.3398	5.9113	5.4795
T2	S4	HT	VM	1.9417	4.4335	5.0228
T2	S4	HT	VT	7.7670	9.3596	9.1324
T2	S5	HB	VB	2.3923	2.9412	1.7544
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.2201	4.9020	6.5789
T2	S5	HT	VM	4.7847	4.9020	1.3158
T2	S5	HT	VT	8.6124	9.3137	9.2105
T3	S1	HB	VB	2.8037	2.8571	3.4483
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.4673	0.0000	0.0000
T3	S1	HT	VB	5.6075	6.1905	5.9113
T3	S1	HT	VM	7.4766	8.0952	6.8966
T3	S1	HT	VT	9.8131	9.0476	9.8522
T3	S2	HB	VB	3.4146	2.8571	2.3041
T3	S2	HB	VM	0.0000	0.0000	0.4608
T3	S2	HB	VT	0.4878	0.0000	0.0000
T3	S2	HT	VB	6.6293	5.2381	6.9124
T3	S2	HT	VM	3.7805	8.5714	3.6866
T3	S2	HT	VT	9.2683	8.5714	9.2166

APPENDIX 27: CONTINUED

T3	S3	HB	VB	3.4826	2.4036	2.3585
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	5.9701	5.7692	6.1321
T3	S3	HT	VM	7.4627	4.3269	4.7170
T3	S3	HT	VT	9.4527	8.6538	8.9623
T3	S4	HB	VB	1.3100	1.3889	2.3041
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	5.6769	5.5556	5.9908
T3	S4	HT	VM	4.6035	3.2407	1.8433
T3	S4	HT	VT	7.4236	6.3333	6.7558
T3	S5	HB	VB	1.4354	1.6957	1.4218
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.4739
T3	S5	HT	VB	5.2632	6.1611	5.2133
T3	S5	HT	VM	0.0000	2.6436	1.8957
T3	S5	HT	VT	6.1340	6.5306	0.5308

TSHV MEANS
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			B	M	T
T1	S1	HB	15.3701c	21.6600e	17.6340d
		T	10.7711a	21.6600e	12.9050b
	2	HB	14.9119bc	15.3605c	15.3890c
		T	11.2434a	20.7013d	13.6217b
	3	HB	5.8897b	0.3205a	1.4351a
		T	10.1513c	13.4523e	11.6389d
	4	HB	2.3125b	0.0000a	0.0000a
		T	5.7084c	2.9213b	6.7926d
	5	HB	1.8802b	0.1558a	0.0000a
		T	5.1447c	1.4106ab	8.6009d
2	S1	HB	3.0542b	0.0000a	0.0000a
		T	5.1613c	5.6403c	9.0194d
	2	HB	2.0204b	0.0000a	0.0000a
		T	5.8895c	5.5690c	6.6809d
	3	HB	2.0695b	0.0000a	0.0000a
		T	5.6026c	3.3657b	8.4512d
	4	HB	2.8717b	0.0000a	0.0000a
		T	5.5769c	3.7994b	8.7530d
	5	HB	2.3626b	0.0000a	0.0000a
		T	5.9003c	3.6675b	9.0456d
3	S1	HB	3.0364b	0.0000a	0.1558a
		T	5.9031c	7.4895d	9.5710e
	2	HB	2.6586b	0.1536a	0.1626a
		T	6.3266c	7.0129c	9.0188d
	3	HB	2.7483b	0.0000a	0.0000a
		T	5.9572c	5.5022c	9.0229d
	4	HB	1.6677b	0.0000a	0.0000a
		T	5.7411d	3.2959c	8.1709e
	5	HB	1.5843b	0.0000ae	0.1580ab
		T	5.5459c	1.5798b	8.3965d

APPENDIX 27: CONTINUED

DATA harvest 5; PRIMARY : RSAA

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T1	S1	HB	VB	14.8837	14.6789	15.3846
T1	S1	HB	VM	21.3953	22.0183	19.9095
T1	S1	HB	VT	17.6744	16.5138	17.1946
T1	S1	HT	VB	9.7674	11.4679	12.6697
T1	S1	HT	VM	21.3953	22.0183	19.9095
T1	S1	HT	VT	14.8837	13.3028	14.9321
T1	S2	HB	VB	16.3366	15.2778	13.0841
T1	S2	HB	VM	20.7921	21.2963	12.1495
T1	S2	HB	VT	17.8218	17.5926	13.5514
T1	S2	HT	VB	11.3861	11.1111	12.6168
T1	S2	HT	VM	20.7921	21.2963	20.5607
T1	S2	HT	VT	12.8713	13.4259	14.0187
T1	S3	HB	VB	7.5829	4.7170	5.9361
T1	S3	HB	VM	0.4739	1.8868	0.4566
T1	S3	HB	VT	0.9479	3.7736	0.9132
T1	S3	HT	VB	11.8483	9.9057	11.8721
T1	S3	HT	VM	13.2701	15.5660	13.2420
T1	S3	HT	VT	10.9005	9.9057	14.1553
T1	S4	HB	VB	2.3923	2.4390	1.4925
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.4785	0.0000	0.0000
T1	S4	HT	VB	5.2632	5.3659	7.9602
T1	S4	HT	VM	3.3493	4.8780	5.4726
T1	S4	HT	VT	8.6124	9.2683	8.9552
T1	S5	HB	VB	2.2321	1.4634	2.3697
T1	S5	HB	VM	0.4464	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	4.9107	6.8293	5.2133
T1	S5	HT	VM	0.8929	6.8293	3.3175
T1	S5	HT	VT	8.9286	8.7805	9.0047
T2	S1	HB	VB	1.9512	2.9126	5.3140
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.9709	1.4493
T2	S1	HT	VB	6.3415	5.8252	7.2464
T2	S1	HT	VM	6.3415	4.3689	5.3140
T2	S1	HT	VT	9.2683	8.7379	9.6618
T2	S2	HB	VB	1.9139	3.8095	2.6738
T2	S2	HB	VM	0.0000	0.4762	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	6.6986	7.6190	6.4171
T2	S2	HT	VM	3.3493	7.1429	9.6257
T2	S2	HT	VT	9.5694	9.5238	9.0909
T2	S3	HB	VB	2.7650	1.8692	1.3216
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.4405
T2	S3	HT	VB	5.0691	6.5421	5.7269
T2	S3	HT	VM	2.7650	3.7383	2.6432
T2	S3	HT	VT	8.7558	7.9439	7.9295
T2	S4	HB	VB	1.8957	1.4423	3.4483
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.4739	0.0000	0.4926
T2	S4	HT	VB	4.7393	7.6923	3.9409
T2	S4	HT	VM	1.4218	3.8462	7.3892
T2	S4	HT	VT	8.5308	8.6538	8.8670
T2	S5	HB	VB	2.3923	2.3923	2.3474
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.2201	6.2201	5.6338
T2	S5	HT	VM	5.7416	3.3493	5.6338
T2	S5	HT	VT	8.6124	8.6124	8.4507
T3	S1	HB	VB	2.3148	3.7838	3.0612
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	6.4815	6.4865	5.1020
T3	S1	HT	VM	4.6296	5.4054	7.6531
T3	S1	HT	VT	9.2593	9.7297	8.6735

T3	S2	HB	VB	1.0692	2.0408	2.5126
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.4673	0.0000	0.0000
T3	S2	HT	VB	7.0093	4.5918	6.5327
T3	S2	HT	VM	4.6729	4.0816	10.5528
T3	S2	HT	VT	5.6705	6.6735	9.0452
T3	S3	HB	VB	2.7149	2.9412	3.5000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.9804	0.0000
T3	S3	HT	VB	7.2398	5.3922	6.0000
T3	S3	HT	VM	2.2624	3.4314	8.0000
T3	S3	HT	VT	6.5973	9.3137	9.0000
T3	S4	HB	VB	2.4272	2.0305	1.9512
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	6.7961	6.0914	5.8537
T3	S4	HT	VM	8.2524	3.5533	3.4146
T3	S4	HT	VT	9.7087	9.6447	8.7805
T3	S5	HB	VB	2.8571	1.3761	2.6786
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	6.1905	3.6697	4.4643
T3	S5	HT	VM	6.6667	0.4587	3.5714
T3	S5	HT	VT	9.0476	6.6807	7.5893

TSHV MEANS

			B	M	T
T1	S1	HB	14.9824 b	21.1077 d	17.1276 c
		T	11.3017 a	21.1077 d	14.3729 b
	2	HB	14.8995 bc	10.0793	16.3219 cd
		T	11.7047 a	20.8830 e	13.4386 ab
	3	HB	6.0787 b	0.9391 a	1.8782 a
		T	11.2087 c	14.0261 d	11.6538 c
	4	HB	2.1080 a	0.0000 a	0.1595 a
		T	6.1964 b	4.5667 b	6.9453 c
	5	HB	2.0217 ab	0.1468 a	0.0000 a
		T	5.6511 bc	3.6799 bc	6.9046 d
2	S1	HB	3.3926 b	0.0000 a	0.8067 a
		T	6.4710 c	5.3415 bc	9.2227 d
	2	HB	2.7991 b	0.1567 a	0.0000 a
		T	6.9116 c	6.7059 c	9.3947 d
	3	HB	1.9832 ab	0.0000 a	0.1468 a
		T	5.7794 c	3.0468 b	6.2097 d
	4	HB	2.2621 bc	0.0000 a	0.3222 ab
		T	5.4575 d	4.2190 cd	6.6839 e
	5	HB	2.3774 b	0.0000 a	0.0000 a
		T	6.0247 c	4.9062 c	6.5565 d
3	S1	HB	3.0533 b	0.0000 a	0.0000 a
		T	6.0233 c	5.8960 c	9.2208 d
	2	HB	2.1408 a	0.0000 a	0.1558 a
		T	6.0446 b	6.4358 b	6.8657 c
	3	HB	3.0520 b	0.0000 a	0.3268 a
		T	6.2107 c	4.5646 b	6.9703 d
	4	HB	2.1383 b	0.0000 a	0.0000 a
		T	6.2470 c	5.0735 bc	9.3780 d
	5	HB	2.3040 b	0.0000 a	0.0000 a
		T	4.7748 c	3.5656 bc	7.8392 d

APPENDIX 27: CONTINUED

DATA

HARVEST 6; PRIMARY : RSAA

T1	S1	HB	VB	15.4639	16.0976	14.8325
T1	S1	HB	VM	21.6495	19.5122	22.0096
T1	S1	HB	VT	17.5258	18.5366	17.2249
T1	S1	HT	VB	10.3093	11.2195	11.0048
T1	S1	HT	VM	21.6495	19.5122	22.0096
T1	S1	HT	VT	13.4021	15.1220	12.9187
T1	S2	HB	VB	15.5000	14.9485	15.7635
T1	S2	HB	VM	20.0000	21.6495	19.7044
T1	S2	HB	VT	16.0000	17.5258	17.7340
T1	S2	HT	VB	11.5000	11.3402	11.8227
T1	S2	HT	VM	20.0000	21.6495	19.7044
T1	S2	HT	VT	15.0000	12.8866	15.2709
T1	S3	HB	VB	6.2949	9.1324	4.8246
T1	S3	HB	VM	0.9217	1.6265	0.4386
T1	S3	HB	VT	0.9217	1.6265	0.4386
T1	S3	HT	VB	10.1302	10.0457	10.0877
T1	S3	HT	VM	11.5207	16.6950	11.8421
T1	S3	HT	VT	11.0599	12.7854	12.7193
T1	S4	HB	VB	3.2407	3.5000	3.6269
T1	S4	HB	VM	1.3809	2.0000	0.5181
T1	S4	HB	VT	0.4630	0.0000	1.5544
T1	S4	HT	VB	6.4815	6.5000	7.2539
T1	S4	HT	VM	4.1667	6.0000	5.1813
T1	S4	HT	VT	8.3333	9.0000	9.8446
T1	S5	HB	VB	5.5533	2.7211	3.0303
T1	S5	HB	VM	0.0000	0.6803	0.0000
T1	S5	HB	VT	1.5228	0.0000	0.0000
T1	S5	HT	VB	7.1066	5.4422	6.0606
T1	S5	HT	VM	9.1371	2.7211	9.0909
T1	S5	HT	VT	10.1523	9.5238	9.0909
T2	S1	HB	VB	1.9512	7.1066	3.7559
T2	S1	HB	VM	2.4390	2.0305	1.4085
T2	S1	HB	VT	2.9268	4.5685	1.4085
T2	S1	HT	VB	5.6537	6.5990	6.1033
T2	S1	HT	VM	6.6293	7.6142	7.5117
T2	S1	HT	VT	8.7805	12.1827	11.2676
T2	S2	HB	VB	4.4355	2.7907	3.2710
T2	S2	HB	VM	0.0000	0.9302	0.4673
T2	S2	HB	VT	0.4926	0.0000	1.8692
T2	S2	HT	VB	5.9113	7.9070	7.0093
T2	S2	HT	VM	7.3892	2.7907	5.6075
T2	S2	HT	VT	10.3448	8.8372	6.8785
T2	S3	HB	VB	2.6549	2.8571	3.6697
T2	S3	HB	VM	0.4425	0.0000	1.8349
T2	S3	HB	VT	0.8850	0.9524	1.3761
T2	S3	HT	VB	5.7522	6.6667	5.0459
T2	S3	HT	VM	3.5398	3.3333	3.2110
T2	S3	HT	VT	9.2920	9.0476	9.1743
T2	S4	HB	VB	2.3256	2.9851	2.8846
T2	S4	HB	VM	1.3953	0.4975	2.8846
T2	S4	HB	VT	0.9302	0.9950	0.4808
T2	S4	HT	VB	6.5116	6.4677	7.2115
T2	S4	HT	VM	5.5814	7.4627	4.8077
T2	S4	HT	VT	9.3023	8.9552	9.1346
T2	S5	HB	VB	2.8436	3.3493	2.9557
T2	S5	HB	VM	0.0000	0.9569	0.4926
T2	S5	HB	VT	1.6957	0.9569	0.9852
T2	S5	HT	VB	7.5829	5.2632	4.9261
T2	S5	HT	VM	6.5308	4.7847	6.8966
T2	S5	HT	VT	10.9005	11.0048	6.8670
T3	S1	HB	VB	2.8302	2.4510	3.3784
T3	S1	HB	VM	0.4717	0.4902	0.6757
T3	S1	HB	VT	1.8868	0.0000	1.3514
T3	S1	HT	VB	6.6038	6.8627	7.4324
T3	S1	HT	VM	7.5472	6.8627	6.0811
T3	S1	HT	VT	8.9623	9.8039	10.8108
T3	S2	HB	VB	2.4876	3.0612	4.4554
T3	S2	HB	VM	0.9950	1.0204	1.4851
T3	S2	HB	VT	1.9900	0.5102	0.4950
T3	S2	HT	VB	7.4627	7.6531	5.4455
T3	S2	HT	VM	5.9701	5.1020	10.8911
T3	S2	HT	VT	8.9552	9.6939	9.9010

APPENDIX 27: CONTINUED

T3	S3	HB	VB	2.7778	2.8571	4.2254
T3	S3	HB	VM	0.0000	0.9524	2.3474
T3	S3	HB	VT	1.3869	0.4762	0.0000
T3	S3	HT	VB	5.5556	6.1905	6.5728
T3	S3	HT	VM	2.3148	2.8571	5.6338
T3	S3	HT	VT	9.2593	8.5714	10.3286
T3	S4	HB	VB	3.1818	2.0725	3.1390
T3	S4	HB	VM	2.2727	1.5544	0.4484
T3	S4	HB	VT	0.0000	1.5544	1.3453
T3	S4	HT	VB	0.3636	5.6995	5.3812
T3	S4	HT	VM	3.1818	5.1813	4.4843
T3	S4	HT	VT	9.0909	8.2902	9.8655
T3	S5	HB	VB	3.2864	3.3333	3.8835
T3	S5	HB	VM	0.0000	0.4762	0.4854
T3	S5	HB	VT	0.4695	0.0000	0.4854
T3	S5	HT	VB	4.6948	6.1905	6.3107
T3	S5	HT	VM	5.1643	6.1905	4.8544
T3	S5	HT	VT	6.9202	8.5714	9.2233

TSHV MEANS
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			B	M	T
T1	S1	HB	15.4647b	21.0571d	17.7624c
		T	10.8445a	21.0571d	13.8142b
	2	HB	15.4040b	20.4513d	17.7533c
		T	11.5543a	20.4513d	14.3858b
	3	HB	7.4173b	1.0622a	1.0622a
		T	10.0905c	13.4193d	12.1882d
	4	HB	3.4559b	1.3023a	0.6725a
		T	6.7451c	5.1160bc	9.0593d
	5	HB	3.1016b	0.2268a	0.5076a
		T	6.2031c	6.9830c	9.5690d
2	S1	HB	4.2712b	1.9593a	2.9679ab
		T	6.1853c	7.3164c	10.7436d
	2	HB	3.4984b	0.4658a	0.7873a
		T	6.9426c	5.2624c	9.3535d
	3	HB	3.0606b	0.7591a	1.0712a
		T	5.8216c	3.3614b	9.1713d
	4	HB	2.7318b	1.5925ab	0.8020a
		T	6.7303c	5.9506c	9.1307d
	5	HB	3.0495b	0.4832a	1.2793a
		T	5.9241c	6.7373c	10.2574d
3	S1	HB	2.8865b	0.5459a	1.0794a
		T	6.9603c	6.8303c	9.8590d
	2	HB	3.3347b	1.1669a	0.9964a
		T	6.8538c	7.3211c	9.5167d
	3	HB	3.2868b	1.0999a	0.6217a
		T	6.1063c	3.6019b	9.3864d
	4	HB	2.7978ab	1.4252b	0.9666a
		T	5.8148d	4.2825cd	9.0822c
	5	HB	3.5011b	0.3205a	0.3183a
		T	5.7320c	5.4031c	6.9050d

APPENDIX 28: PERCENTAGE DISTRIBUTION OF RELATIVE STERILITY (PERCENTAGE OF TOTAL STERILE OVULES, "D + R" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) IN 6 POSITIONS WITHIN SECONDARY HEADS = RSAA

TEDDYBEAR : HARVEST 1; SECONDARY : RSAA

DATA
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T1	S1	HB	VB	4.6367	2.6549	3.2258
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	4.6367	6.1947	5.3763
T1	S1	HT	VM	11.2903	3.5398	7.5269
T1	S1	HT	VT	10.7527	6.4071	9.6774
T1	S2	HB	VB	3.5354	4.0404	4.9587
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	5.5556	5.0505	4.9587
T1	S2	HT	VM	10.6061	9.0909	10.7438
T1	S2	HT	VT	9.0909	9.0909	9.9174
T1	S3	HB	VB	6.9307	10.6145	6.2176
T1	S3	HB	VM	6.4356	3.9106	4.1451
T1	S3	HB	VT	3.9604	5.0279	2.5907
T1	S3	HT	VB	5.9406	4.4693	4.6632
T1	S3	HT	VM	5.4158	16.7598	12.9534
T1	S3	HT	VT	9.9010	12.2905	9.8446
T2	S1	HB	VB	6.3218	6.3694	5.0279
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	4.0230	5.0955	4.4693
T2	S1	HT	VM	10.3448	11.4650	6.7039
T2	S1	HT	VT	10.3448	6.9172	5.5866
T2	S2	HB	VB	4.0936	3.5176	4.9451
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.2632	5.5276	4.3956
T2	S2	HT	VM	6.1871	5.0251	10.9890
T2	S2	HT	VT	9.3567	10.0503	9.8901
T2	S3	HB	VB	4.5918	3.4146	4.0201
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.6327	5.8537	5.5276
T2	S3	HT	VM	9.1837	7.3171	10.0503
T2	S3	HT	VT	6.1633	6.7805	8.5427
T3	S1	HB	VB	6.4211	2.5253	6.8783
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.1579	5.5556	4.2328
T3	S1	HT	VM	10.0000	2.0202	10.0529
T3	S1	HT	VT	9.4737	6.5859	10.5820
T3	S2	HB	VB	2.3810	3.9801	7.5000
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	6.6667	4.9751	2.5000
T3	S2	HT	VM	5.7143	11.4428	12.5000
T3	S2	HT	VT	9.0476	8.9552	9.3750
T3	S3	HB	VB	4.9160	3.1414	3.6082
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.9160	5.7592	5.6701
T3	S3	HT	VM	9.8361	10.9948	9.2784
T3	S3	HT	VT	9.2896	8.9005	9.2784

APPENDIX 28: CONTINUED

TEDDYBEAR : HARVEST 1; SECONDARY : RSAA

TSHV MEANS
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			B		M		T	
T1	S1	HB	3.5731	b	0.0000	a	0.0000	a
		T	5.4699	bc	7.4523	cd	9.6124	d
	2	HB	4.1781	b	0.0000	a	0.0000	a
		T	5.1882	b	10.1469	c	9.3664	c
	3	HB	7.9209	bc	4.8304	a	3.8597	a
		T	5.0244	b	12.7097	d	10.6787	cd
2	S1	HB	5.9064	b	0.0000	a	0.0000	a
		T	4.5293	b	9.5046	c	8.2829	c
	2	HB	4.1854	b	0.0000	a	0.0000	a
		T	5.0621	b	8.0671	c	9.7657	c
	3	HB	4.0089	b	0.0000	a	0.0000	a
		T	6.0046	b	8.8503	c	8.4955	c
3	S1	HB	5.9415	b	0.0000	a	0.0000	a
		T	4.3154	b	7.3577	c	9.5472	c
	2	HB	4.6204	b	0.0000	a	0.0000	a
		T	4.7139	b	9.8857	c	9.1259	c
	3	HB	3.8892	b	0.0000	a	0.0000	a
		T	5.4491	b	10.0364	c	9.1562	c

APPENDIX 28: CONTINUED

DATA
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TEDDYBEAR : HARVEST 2/SECONDARY : RSAA

T1	S1	HB	VB	14.7059	15.0000	14.4330
T1	S1	HB	VM	21.1765	22.2222	22.6804
T1	S1	HB	VT	16.8235	20.0000	16.5567
T1	S1	HT	VB	6.2353	6.6667	6.7010
T1	S1	HT	VM	21.1765	22.2222	22.6804
T1	S1	HT	VT	15.6824	13.8889	14.9485
T1	S2	HB	VB	14.1304	13.9535	15.1685
T1	S2	HB	VM	22.8261	23.2558	21.3483
T1	S2	HB	VT	19.5652	16.6047	20.2247
T1	S2	HT	VB	5.9783	5.8140	7.3034
T1	S2	HT	VM	22.8261	23.2558	21.3483
T1	S2	HT	VT	14.6739	15.1163	14.6067
T1	S3	HB	VB	15.0178	14.9254	13.5593
T1	S3	HB	VM	16.9349	15.9204	20.9040
T1	S3	HB	VT	16.5680	16.4179	16.6441
T1	S3	HT	VB	5.3254	6.9552	5.0847
T1	S3	HT	VM	23.6686	21.8905	22.5989
T1	S3	HT	VT	15.3846	13.4328	15.8192
T1	S4	HB	VB	0.3333	6.9767	6.5574
T1	S4	HB	VM	1.1111	4.6512	6.5574
T1	S4	HB	VT	1.6667	2.9070	3.2787
T1	S4	HT	VB	5.6667	3.4884	4.9180
T1	S4	HT	VM	16.6667	13.9535	13.6612
T1	S4	HT	VT	12.7778	11.0465	11.4754
T1	S5	HB	VB	4.0909	5.6701	5.3892
T1	S5	HB	VM	0.9091	0.5155	0.0000
T1	S5	HB	VT	0.9091	1.0309	1.7964
T1	S5	HT	VB	5.0000	6.1856	5.3892
T1	S5	HT	VM	5.0000	10.8247	10.1677
T1	S5	HT	VT	6.6364	9.7938	11.3772
T2	S1	HB	VB	8.0247	6.0241	9.1954
T2	S1	HB	VM	4.3210	1.2048	1.1494
T2	S1	HB	VT	11.1111	1.2048	5.7471
T2	S1	HT	VB	3.7037	6.0241	3.4483
T2	S1	HT	VM	13.5802	14.4578	17.2414
T2	S1	HT	VT	14.8148	10.2410	12.0690
T2	S2	HB	VB	0.2500	6.5476	4.4444
T2	S2	HB	VM	2.2727	0.0000	3.3333
T2	S2	HB	VT	2.2727	0.5952	1.6667
T2	S2	HT	VB	6.2500	3.5714	5.5556
T2	S2	HT	VM	13.0682	12.5000	9.4444
T2	S2	HT	VT	10.7955	10.7143	11.6667
T2	S3	HB	VB	3.6649	6.9655	7.5145
T2	S3	HB	VM	1.0471	4.1379	0.5780
T2	S3	HB	VT	0.5236	2.0690	1.1561
T2	S3	HT	VB	5.2356	3.4483	4.6243
T2	S3	HT	VM	9.4241	13.7931	12.7168
T2	S3	HT	VT	6.9005	11.7241	10.9827
T2	S4	HB	VB	10.8696	6.9767	7.1823
T2	S4	HB	VM	9.2391	1.1628	1.6575
T2	S4	HB	VT	6.5217	1.7442	1.6575
T2	S4	HT	VB	4.8913	4.0698	5.5249
T2	S4	HT	VM	19.0217	11.0465	9.9448
T2	S4	HT	VT	11.9565	11.0465	11.0497
T2	S5	HB	VB	4.6154	5.6122	7.6433
T2	S5	HB	VM	1.0256	0.5102	7.6433
T2	S5	HB	VT	0.5128	0.5102	7.0064
T2	S5	HT	VB	0.1538	6.1224	2.5478
T2	S5	HT	VM	4.6154	11.2245	12.1019
T2	S5	HT	VT	9.7436	11.7347	11.4650
T3	S1	HB	VB	10.8974	7.2727	4.8485
T3	S1	HB	VM	5.1282	6.6667	0.6061
T3	S1	HB	VT	4.4872	3.6364	2.4242
T3	S1	HT	VB	3.2051	4.2424	5.4545
T3	S1	HT	VM	16.6667	15.7576	11.5152

APPENDIX 28: CONTINUED

T3	S1	HT	VT	11.5305	12.1212	9.6970
T3	S2	HB	VB	0.1061	6.6093	9.1463
T3	S2	HB	VM	1.6216	2.6490	4.2683
T3	S2	HB	VT	0.0000	2.6490	7.9268
T3	S2	HT	VB	4.3243	1.9866	6.7073
T3	S2	HT	VM	12.9730	13.9073	14.6341
T3	S2	HT	VT	11.3514	11.2583	11.5854
T3	S3	HB	VB	4.8649	5.2632	8.9431
T3	S3	HB	VM	0.5405	0.0000	0.0000
T3	S3	HB	VT	1.0811	0.0000	0.0000
T3	S3	HT	VB	5.4054	4.2105	4.0650
T3	S3	HT	VM	9.7297	11.5789	12.1951
T3	S3	HT	VT	10.2703	10.5263	11.3821
T3	S4	HB	VB	7.9096	5.2632	6.3584
T3	S4	HB	VM	0.5650	1.7544	1.1561
T3	S4	HB	VT	2.2599	1.7544	0.5780
T3	S4	HT	VB	4.5198	4.6784	3.4682
T3	S4	HT	VM	14.6893	12.2807	11.5607
T3	S4	HT	VT	10.7345	9.3567	10.4046
T3	S5	HB	VB	6.8571	6.0247	3.5000
T3	S5	HB	VM	0.5714	0.6173	1.5000
T3	S5	HB	VT	0.5714	1.6519	1.0000
T3	S5	HT	VB	4.0000	3.0864	7.0000
T3	S5	HT	VM	13.1429	12.9630	10.0000

TSHV MEANS
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			B	M	T
T1	S1	HB	14.7130b	22.0264c	19.1267c
		T	7.2010a	22.0264c	14.9066b
	2	HB	14.4175b	22.4767d	19.4649c
		T	6.3652a	22.4767d	14.7990b
	3	HB	13.6341b	16.5864d	17.2100cd
		T	6.4551a	22.7194e	14.8789bc
	4	HB	7.2892b	4.1066a	2.6174a
		T	5.0244ab	14.7605d	11.7666c
	5	HB	5.0501b	0.4749a	1.2455a
		T	5.5249b	10.6641c	9.9358c
2	S1	HB	7.7481bc	2.2251a	6.0210b
		T	4.3920ab	13.0932d	12.3749d
	2	HB	5.7474b	1.8667a	1.5115a
		T	5.1257b	11.6709c	11.0588c
	3	HB	6.7150b	1.9210a	1.2495a
		T	4.4361b	11.9760c	10.5358c
	4	HB	8.3429c	4.0198ab	3.3078a
		T	4.8236bc	13.3377d	11.3509d
	5	HB	5.9570b	3.0597ab	2.6765a
		T	4.9414ab	9.3139c	10.9811c
3	S1	HB	7.6729b	4.1336a	3.5159a
		T	4.3007a	14.6465d	11.1169c
	2	HB	8.6212b	2.8463a	3.5253a
		T	4.3395a	13.8361c	11.3983c
	3	HB	6.3570b	0.1802a	0.3604a
		T	4.5603b	11.1679c	10.7262c
	4	HB	6.5104b	1.1565a	1.5308a
		T	4.2221b	12.8436c	10.1653c
	5	HB	6.1273b	0.8962a	1.1411a
		T	4.6955b	12.0353c	11.6238c

APPENDIX 28: CONTINUED

DATA HARVEST 3; SECONDARY : RSAA

T1	S1	HB	VB	14.3713	13.3333	14.5946
T1	S1	HB	VM	21.5569	23.5897	21.6216
T1	S1	HB	VT	19.1617	16.4615	13.3784
T1	S1	HT	VB	8.3832	6.0667	9.1892
T1	S1	HT	VM	21.5569	23.5697	21.6216
T1	S1	HT	VT	14.9701	14.3590	14.5946
T1	S2	HB	VB	14.6405	15.8163	14.8571
T1	S2	HB	VM	22.2222	20.4082	20.5714
T1	S2	HB	VT	19.6970	18.3673	20.5714
T1	S2	HT	VB	7.0707	12.2449	8.0000
T1	S2	HT	VM	22.2222	20.4082	20.5714
T1	S2	HT	VT	14.1414	12.7551	15.4286
T1	S3	HB	VB	13.4078	12.6492	15.5779
T1	S3	HB	VM	23.4637	15.6425	20.1005
T1	S3	HB	VT	20.1117	13.9665	19.0955
T1	S3	HT	VB	5.0279	6.1453	11.0553
T1	S3	HT	VM	23.4637	22.9050	20.1005
T1	S3	HT	VT	14.5251	13.9665	14.0704
T1	S4	HB	VB	8.1633	5.3476	8.6486
T1	S4	HB	VM	10.2041	1.0695	5.4054
T1	S4	HB	VT	10.6844	0.0000	5.9459
T1	S4	HT	VB	3.4014	4.6120	8.1081
T1	S4	HT	VM	14.9660	12.6342	10.2162
T1	S4	HT	VT	13.6054	12.2995	11.8919
T1	S5	HB	VB	5.4217	5.0279	7.1006
T1	S5	HB	VM	0.6024	0.0000	6.2840
T1	S5	HB	VT	0.6024	0.5587	7.6923
T1	S5	HT	VB	6.0241	6.1453	3.5503
T1	S5	HT	VM	13.2530	11.1732	17.1598
T1	S5	HT	VT	10.2410	10.0559	11.8343
T2	S1	HB	VB	4.9363	7.2289	7.6087
T2	S1	HB	VM	0.6173	0.6024	0.5435
T2	S1	HB	VT	1.2346	1.2048	1.6304
T2	S1	HT	VB	5.5556	4.2169	4.3478
T2	S1	HT	VM	7.4074	11.4458	11.9565
T2	S1	HT	VT	9.2593	12.6506	9.7826
T2	S2	HB	VB	6.3218	5.2632	5.1282
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.5747	3.0075	2.0513
T2	S2	HT	VB	4.5977	6.0150	5.6410
T2	S2	HT	VM	8.0460	11.2782	11.7949
T2	S2	HT	VT	9.7701	10.5263	10.7692
T2	S3	HB	VB	5.6180	8.4337	6.2500
T2	S3	HB	VM	0.5618	0.6024	0.0000
T2	S3	HB	VT	1.1236	1.6072	3.1250
T2	S3	HT	VB	5.6180	2.4096	3.7500
T2	S3	HT	VM	10.6742	13.2530	13.1250
T2	S3	HT	VT	11.2360	12.0482	11.2500
T2	S4	HB	VB	4.7059	6.0925	4.6083
T2	S4	HB	VM	2.9412	0.5780	0.0000
T2	S4	HB	VT	3.5294	2.8902	1.3825
T2	S4	HT	VB	5.8824	4.0462	6.9124
T2	S4	HT	VM	11.1765	15.6069	11.0599
T2	S4	HT	VT	9.4118	12.1387	9.6774
T2	S5	HB	VB	5.5866	7.5145	6.2857
T2	S5	HB	VM	0.5507	0.0000	1.7143
T2	S5	HB	VT	0.5507	0.5780	0.0000
T2	S5	HT	VB	6.1453	4.6243	4.5714
T2	S5	HT	VM	11.7318	13.2948	13.1429
T2	S5	HT	VT	11.7318	11.5607	10.2857
T3	S1	HB	VB	3.6251	5.9524	7.8788
T3	S1	HB	VM	1.0929	1.1905	1.8182
T3	S1	HB	VT	1.0929	2.3810	1.8182
T3	S1	HT	VB	5.4645	5.9524	4.2424
T3	S1	HT	VM	10.3825	13.6905	13.3333

APPENDIX 28: CONTINUED

T3	S1	HT	VT	0.1907	10.7143	12.1212
T3	S2	HB	VB	0.0745	5.9459	7.5581
T3	S2	HB	VM	0.6211	0.0000	1.7442
T3	S2	HB	VT	3.7267	0.5405	2.3256
T3	S2	HT	VB	3.7267	5.4054	4.6512
T3	S2	HT	VM	12.4224	12.9730	10.2791
T3	S2	HT	VT	9.9379	9.7297	11.0465
T3	S3	HB	VB	7.3620	6.2147	5.2083
T3	S3	HB	VM	2.4540	2.2599	0.0000
T3	S3	HB	VT	0.6135	2.2599	2.0833
T3	S3	HT	VB	4.9000	4.5196	5.7292
T3	S3	HT	VM	12.6834	12.4294	6.8542
T3	S3	HT	VT	10.4294	11.2994	9.8958
T3	S4	HB	VB	5.4645	7.6503	6.8757
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	1.6393	1.0929	1.7751
T3	S4	HT	VB	6.0109	3.6251	5.5503
T3	S4	HT	VM	11.4754	10.9290	12.4260
T3	S4	HT	VT	10.9290	10.9290	11.8343
T3	S5	HB	VB	4.7368	6.1453	6.5574
T3	S5	HB	VM	1.0526	0.0000	0.5464
T3	S5	HB	VT	0.5263	0.5587	0.5464
T3	S5	HT	VB	4.7368	4.4693	3.2787
T3	S5	HT	VM	5.2632	11.7318	12.5683
T3	S5	HT	VT	9.4737	10.0559	9.8361

TSHV MEANS
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			B	M	T
T1	S1	HB	14.0997b	22.2561d	18.6672c
		T	3.0797a	22.2561d	14.6412b
	2	HB	15.1066b	21.0673c	19.5452c
		T	9.1052a	21.0673c	14.1064b
	3	HB	13.9430b	19.7355cd	17.7246c
		T	7.4095a	22.1564d	14.1673b
	4	HB	7.3365a	5.5597a	5.6101a
		T	5.4406a	14.6721b	12.5989b
	5	HB	5.8501b	2.9621a	2.9511a
		T	5.2399ab	13.8620d	10.7104c
2	S1	HB	6.5920b	0.5877a	1.3566ab
		T	4.7067b	10.2699c	10.5642c
	2	HB	5.5711b	0.0000a	1.8778a
		T	5.4179b	10.3730c	10.3552c
	3	HB	6.7672c	0.3801a	2.0186ab
		T	3.9259b	12.3507d	11.5114d
	4	HB	5.6022b	1.1731a	2.6007a
		T	5.6137b	12.6144c	10.4093c
	5	HB	6.4623b	0.7576a	0.3789a
		T	5.1137b	12.7232c	11.1928c
3	S1	HB	5.6834b	1.3672a	1.7640a
		T	5.2198b	12.4608c	10.3441c
	2	HB	7.1929c	0.7864a	2.1976ab
		T	4.5944b	13.6915d	10.2360e
	3	HB	6.2617b	1.5713a	1.6522a
		T	5.0523b	11.3890c	10.5416c
	4	HB	7.3302c	0.0000a	1.5025a
		T	4.4621b	11.6101d	11.2307d
	5	HB	5.8132b	0.5330a	0.5438a
		T	4.1616b	9.8544c	9.7665c

APPENDIX 28: CONTINUED

DATA
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HARVEST 4; SECONDARY : RSAA

T1	S1	HB	VB	15.5593	14.9171	14.5833
T1	S1	HB	VM	25.7208	20.9945	21.8750
T1	S1	HB	VT	13.0791	16.7845	17.7083
T1	S1	HT	VB	0.2147	9.3923	10.4167
T1	S1	HT	VM	25.7208	20.9945	21.8750
T1	S1	HT	VT	14.6893	14.9171	15.5417
T1	S2	HB	VB	14.3678	14.9485	14.2012
T1	S2	HB	VM	21.6391	20.6186	20.7101
T1	S2	HB	VT	20.6897	19.5876	15.3846
T1	S2	HT	VB	5.1724	6.7629	7.6923
T1	S2	HT	VM	21.6391	20.6186	20.1183
T1	S2	HT	VT	10.0920	15.4639	14.2012
T1	S3	HB	VB	14.7308	12.4324	14.6739
T1	S3	HB	VM	22.1053	17.2973	22.8261
T1	S3	HB	VT	13.9474	16.7568	17.3913
T1	S3	HT	VB	7.6947	6.4865	9.2391
T1	S3	HT	VM	22.1053	22.7027	22.8261
T1	S3	HT	VT	14.2105	14.5946	13.0435
T1	S4	HB	VB	7.3446	6.3584	8.0645
T1	S4	HB	VM	6.7797	0.5780	0.4516
T1	S4	HB	VT	5.6497	0.0000	0.4516
T1	S4	HT	VB	4.5198	3.4682	4.3011
T1	S4	HT	VM	15.6192	12.1387	14.5161
T1	S4	HT	VT	11.2994	9.8266	11.8280
T1	S5	HB	VB	5.5806	6.6667	5.9783
T1	S5	HB	VM	0.5507	0.5556	1.0870
T1	S5	HB	VT	0.0000	0.5556	0.5435
T1	S5	HT	VB	7.2626	3.3333	4.8913
T1	S5	HT	VM	10.0559	12.2222	11.9565
T1	S5	HT	VT	8.9305	10.5556	11.4130
T2	S1	HB	VB	6.1111	6.6050	6.2418
T2	S1	HB	VM	0.5556	2.5157	0.0000
T2	S1	HB	VT	1.1111	4.4025	0.0000
T2	S1	HT	VB	6.1111	3.7736	5.2967
T2	S1	HT	VM	12.2222	15.6365	15.1868
T2	S1	HT	VT	10.0000	11.3208	12.0879
T2	S2	HB	VB	8.5217	3.4146	6.7416
T2	S2	HB	VM	0.5435	1.9512	1.1236
T2	S2	HB	VT	1.0870	2.4390	0.5618
T2	S2	HT	VB	5.9783	5.8537	5.0562
T2	S2	HT	VM	12.5000	7.3171	11.2360
T2	S2	HT	VT	11.4130	11.7073	11.2360
T2	S3	HB	VB	5.8824	3.8095	3.0000
T2	S3	HB	VM	1.1765	0.9524	0.0000
T2	S3	HB	VT	1.1765	1.4286	0.0000
T2	S3	HT	VB	5.8824	5.7143	6.0000
T2	S3	HT	VM	11.7647	7.1429	5.5000
T2	S3	HT	VT	11.7647	10.0000	10.0000
T2	S4	HB	VB	0.3830	6.3830	7.7778
T2	S4	HB	VM	0.5319	0.0000	1.6667
T2	S4	HB	VT	0.5319	2.1277	2.2222
T2	S4	HT	VB	5.3191	4.7872	3.3333
T2	S4	HT	VM	10.6383	6.5106	11.1111
T2	S4	HT	VT	11.1702	12.7660	10.5556
T2	S5	HB	VB	6.2500	7.0588	6.2857
T2	S5	HB	VM	0.5602	2.3529	1.1429
T2	S5	HB	VT	2.2727	0.0000	1.7143
T2	S5	HT	VB	4.5455	4.1176	4.5714
T2	S5	HT	VM	11.3636	12.3529	12.0000
T2	S5	HT	VT	10.7955	11.7647	12.5714
T3	S1	HB	VB	8.6957	11.5607	5.1546
T3	S1	HB	VM	1.6634	1.1561	1.5464
T3	S1	HB	VT	4.3478	4.0462	0.0000
T3	S1	HT	VB	3.1056	4.6243	5.1546
T3	S1	HT	VM	13.6646	16.4971	6.2474

T3	S1	HT	VT	13.6646	12.1387	10.3093
T3	S2	HB	VB	9.3108	5.2356	3.6298
T3	S2	HB	VM	1.2422	1.0471	1.1050
T3	S2	HB	VT	0.6211	1.0471	1.6575
T3	S2	HT	VB	1.8634	5.7592	4.4199
T3	S2	HT	VM	10.1491	6.3770	12.1547
T3	S2	HT	VT	11.1801	9.9476	10.4972
T3	S3	HB	VB	3.8201	5.9459	7.9096
T3	S3	HB	VM	1.0582	2.1622	1.1299
T3	S3	HB	VT	2.1104	1.0811	1.1299
T3	S3	HT	VB	3.2910	4.3243	4.5198
T3	S3	HT	VM	11.6402	14.0541	12.9944
T3	S3	HT	VT	10.0529	10.6108	11.2994
T3	S4	HB	VB	3.6122	6.7039	9.1463
T3	S4	HB	VM	2.0408	1.6760	3.0488
T3	S4	HB	VT	1.0204	1.6760	1.2195
T3	S4	HT	VB	3.1224	4.4693	2.4390
T3	S4	HT	VM	11.7347	11.1732	13.4146
T3	S4	HT	VT	9.6939	11.1732	10.9756
T3	S5	HB	VB	6.0773	5.4876	9.0426
T3	S5	HB	VM	0.0000	1.2195	1.5957
T3	S5	HB	VT	0.5525	0.6098	1.0638
T3	S5	HT	VB	4.9724	5.4878	6.3830
T3	S5	HT	VM	9.3923	10.3659	11.7021
T3	S5	HT	VT	12.1547	11.5854	10.6383

TSHV MEANS
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			B	M	T
T1	S1	HB	14.3533 b	22.1994 d	16.1907 c
		T	8.0745 a	22.1994 d	14.3827 b
	2	HB	14.5038 b	21.0559 d	16.5540 c
		T	7.2092 a	20.8567 d	15.2524 b
	3	HB	13.9477 b	20.7429 d	17.6965 c
		T	7.8735 a	22.5447 d	13.9495 b
	4	HB	7.2538 b	4.6031 a	4.0338 a
		T	4.0904 a	14.1560 d	10.9847 c
	5	HB	6.0772 b	0.7357 a	0.3663 a
		T	5.1624 b	11.4115 c	10.3024 c
2	S1	HB	7.7193 c	1.0238 a	1.8379 a
		T	4.3935 b	13.0818 d	11.1362 d
	2	HB	5.5593 b	1.2061 a	1.3626 a
		T	5.6294 b	10.3510 c	11.4521 c
	3	HB	4.2306 b	0.7096 a	0.8683 a
		T	5.8635 b	6.1359 c	10.5882 d
	4	HB	6.6479 c	0.7329 a	1.6273 a
		T	4.4799 b	10.0867 d	11.4972 d
	5	HB	6.5315 b	1.3547 a	1.3290 a
		T	4.4115 b	11.9055 c	11.7105 c
3	S1	HB	3.4703 c	1.5219 a	2.7980 ab
		T	4.2948 b	13.4697 d	12.0375 d
	2	HB	7.0607 c	1.1314 a	1.1066 a
		T	4.0141 b	12.2269 d	10.5417 d
	3	HB	6.5586 b	1.4561 a	1.4425 a
		T	4.7117 b	12.8962 c	10.7211 c
	4	HB	7.1542 c	2.2532 ab	1.3053 a
		T	4.3436 b	12.1075 d	10.6142 d
	5	HB	6.8692 b	0.9364 a	0.7420 a
		T	5.6144 b	10.4867 c	11.4595 c

APPENDIX 28: CONTINUED

DATA HARVEST 5; SECONDARY : RSAA

T1	S1	HB	VB	10.2037	15.1685	14.7465
T1	S1	HB	VM	19.4444	20.7865	22.1198
T1	S1	HB	VT	10.5165	21.3483	17.5115
T1	S1	HT	VB	12.0370	7.3034	10.5991
T1	S1	HT	VM	19.4444	19.6629	22.1198
T1	S1	HT	VT	14.3519	14.0449	12.9032
T1	S2	HB	VB	13.6250	14.0244	13.9303
T1	S2	HB	VM	19.7917	17.0732	23.8806
T1	S2	HB	VT	10.7500	19.5122	17.9104
T1	S2	HT	VB	10.9375	4.2683	7.4627
T1	S2	HT	VM	19.7917	19.5122	23.8806
T1	S2	HT	VT	13.1042	15.2439	12.9353
T1	S3	HB	VB	14.0541	12.0419	13.2632
T1	S3	HB	VM	13.6757	8.3770	10.4211
T1	S3	HB	VT	12.9730	6.2827	17.8947
T1	S3	HT	VB	9.1892	8.9005	7.8947
T1	S3	HT	VM	21.6216	20.4188	21.0526
T1	S3	HT	VT	14.5946	12.5654	13.6842
T1	S4	HB	VB	9.1429	5.8824	9.2715
T1	S4	HB	VM	8.5714	2.3529	2.6490
T1	S4	HB	VT	2.8571	0.5882	1.3245
T1	S4	HT	VB	0.0000	5.2941	3.9603
T1	S4	HT	VM	10.6571	15.2941	14.5695
T1	S4	HT	VT	13.7143	10.5882	9.9338
T1	S5	HB	VB	3.7383	6.2893	7.0652
T1	S5	HB	VM	0.4673	2.5157	0.0000
T1	S5	HB	VT	0.9346	0.0000	1.6304
T1	S5	HT	VB	8.0748	4.4025	4.8913
T1	S5	HT	VM	7.9439	12.5786	10.3261
T1	S5	HT	VT	10.2804	11.3208	9.7826
T2	S1	HB	VB	3.4146	9.2025	7.6023
T2	S1	HB	VM	0.4878	2.4540	1.7544
T2	S1	HB	VT	1.4634	3.0675	2.9240
T2	S1	HT	VB	5.8537	3.0675	4.0936
T2	S1	HT	VM	9.2683	11.6564	11.6959
T2	S1	HT	VT	9.2683	11.6564	13.4503
T2	S2	HB	VB	3.5897	7.4286	7.5000
T2	S2	HB	VM	0.0000	3.4286	0.0000
T2	S2	HB	VT	0.0000	1.7143	0.6250
T2	S2	HT	VB	5.6410	4.0000	3.1250
T2	S2	HT	VM	9.2308	12.5714	13.7500
T2	S2	HT	VT	9.7436	12.0000	12.5000
T2	S3	HB	VB	3.9801	5.1282	4.7120
T2	S3	HB	VM	0.4975	1.0256	0.0000
T2	S3	HB	VT	0.9950	1.5385	0.5236
T2	S3	HT	VB	6.9652	6.1538	5.7592
T2	S3	HT	VM	8.4577	8.2051	6.2827
T2	S3	HT	VT	10.4478	11.2821	9.4241
T2	S4	HB	VB	8.6420	7.4286	7.2289
T2	S4	HB	VM	1.2346	2.2857	1.2048
T2	S4	HB	VT	3.0864	0.5714	2.4096
T2	S4	HT	VB	3.7037	3.4286	3.6145
T2	S4	HT	VM	12.3457	13.7143	13.8554
T2	S4	HT	VT	10.4938	10.8571	11.4458
T2	S5	HB	VB	3.6957	8.0000	5.8824
T2	S5	HB	VM	3.1056	2.0000	1.1765
T2	S5	HB	VT	1.2422	2.0000	0.0000
T2	S5	HT	VB	2.4845	2.6667	5.2941
T2	S5	HT	VM	13.0435	14.0000	11.7647
T2	S5	HT	VT	13.6646	12.6667	10.0000
T3	S1	HB	VB	8.8182	6.0606	8.6420
T3	S1	HB	VM	1.7045	0.6061	1.2346
T3	S1	HB	VT	1.7045	1.2121	1.2346
T3	S1	HT	VB	3.4091	4.2424	3.0864
T3	S1	HT	VM	13.0682	13.9394	13.5802

APPENDIX 28: CONTINUED

T3	S1	HT	VT	9.6591	10.3030	10.4938
T3	S2	HB	VB	7.3034	5.6818	5.8824
T3	S2	HB	VM	0.5618	0.5682	1.7647
T3	S2	HB	VT	1.6854	1.1364	2.3529
T3	S2	HT	VB	4.4944	5.6818	4.1176
T3	S2	HT	VM	11.7978	10.7955	11.7647
T3	S2	HT	VT	12.3596	9.0909	13.5294
T3	S3	HB	VB	7.7381	9.6774	3.2873
T3	S3	HB	VM	0.0000	1.9355	1.1050
T3	S3	HB	VT	1.1905	1.9355	0.5525
T3	S3	HT	VB	2.9762	0.6452	3.8674
T3	S3	HT	VM	12.5000	16.7742	14.3646
T3	S3	HT	VT	12.5000	12.2581	12.1547
T3	S4	HB	VB	6.7568	7.7419	5.9880
T3	S4	HB	VM	1.3514	6.4516	1.1976
T3	S4	HB	VT	3.3784	3.2258	0.0000
T3	S4	HT	VB	4.0541	4.5161	4.1916
T3	S4	HT	VM	13.5135	14.1935	14.9701
T3	S4	HT	VT	10.1351	12.2581	11.9760
T3	S5	HB	VB	4.6875	3.8462	6.0109
T3	S5	HB	VM	1.0417	0.0000	2.1858
T3	S5	HB	VT	1.0417	0.5495	2.1858
T3	S5	HT	VB	6.2500	5.4945	4.9180
T3	S5	HT	VM	9.8958	7.1429	12.5683
T3	S5	HT	VT	10.4167	9.6901	10.9290

TSHV MEANS
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			B	M	T
T1	S1	HB	15.3729 b	20.7836 c	19.1261 c
		T	9.9798 a	20.4091 c	13.7667 b
	2	HB	14.5266 b	20.2465 c	16.7242 c
		T	7.5562 a	21.0615 c	14.4278 b
	3	HB	13.7364 b	14.1579 b	12.3635 b
		T	3.6615 a	21.0310 c	13.6148 b
	4	HB	3.0989 c	4.5245 b	1.5900 a
		T	6.4161 bc	15.2403 d	11.4121 d
	5	HB	5.6976 b	0.9943 a	0.8550 a
		T	5.1229 b	10.2829 c	10.4612 c
2	S1	HB	6.7398 c	1.5654 a	2.4850 ab
		T	4.3382 b	10.8735 d	11.4563 d
	2	HB	6.1728 b	1.1429 a	0.7798 a
		T	4.2553 b	11.8507 c	11.4145 c
	3	HB	4.6068 b	0.5077 a	1.0190 a
		T	6.2927 bc	7.6465 c	10.3846 d
	4	HB	7.7665 b	1.5750 a	2.0225 a
		T	3.5822 a	13.3051 c	10.9323 c
	5	HB	7.5260 b	2.0940 a	1.0807 a
		T	3.4818 a	12.9361 c	12.1104 c
3	S1	HB	7.1736 b	1.1817 a	1.3637 a
		T	3.5793 a	13.5293 c	10.1520 c
	2	HB	6.2892 b	0.9649 a	1.7249 a
		T	4.7646 b	11.4526 c	11.6600 c
	3	HB	3.5676 b	1.0135 a	1.2261 a
		T	2.4963 a	14.5463 c	12.3043 c
	4	HB	6.8289 b	3.0062 a	2.2014 a
		T	4.2539 a	14.2257 d	11.4564 c
	5	HB	4.8482 b	1.0758 a	1.2590 a
		T	5.5542 b	9.8690 c	10.4119 c

APPENDIX 28: CONTINUED

T3	S1	HT	VT	9.5506	10.2410	10.5820
T3	S2	HB	VB	3.1136	9.3960	0.1798
T3	S2	HB	VM	1.1364	0.6711	0.5618
T3	S2	HB	VT	0.0000	2.6846	1.6854
T3	S2	HT	VB	4.5455	3.3557	4.4944
T3	S2	HT	VM	11.3636	14.7651	14.6067
T3	S2	HT	VT	7.3864	12.0805	9.5506
T3	S3	HB	VB	3.8511	5.7592	7.5581
T3	S3	HB	VM	0.5319	1.5707	1.7442
T3	S3	HB	VT	1.0638	1.0471	2.9070
T3	S3	HT	VB	4.7872	4.7120	4.0698
T3	S3	HT	VM	9.5745	12.0419	13.9535
T3	S3	HT	VT	12.7600	9.9476	10.4651
T3	S4	HB	VB	0.1224	7.2727	12.6761
T3	S4	HB	VM	2.0408	1.8182	2.8169
T3	S4	HB	VT	1.5306	5.4545	4.2254
T3	S4	HT	VB	0.6327	4.2424	0.0000
T3	S4	HT	VM	11.2245	10.9091	10.1972
T3	S4	HT	VT	9.0939	11.3152	13.3803
T3	S5	HB	VB	3.6824	4.0154	3.0279
T3	S5	HB	VM	1.0695	0.0000	1.1173
T3	S5	HB	VT	1.6043	1.0256	0.5587
T3	S5	HT	VB	4.6128	5.6410	6.7039
T3	S5	HT	VM	11.2299	11.2821	10.6145
T3	S5	HT	VT	11.2299	11.7949	10.0559

TSHV MEANS
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			B	M	T
T1	S1	HB	13.7844 b	20.2223 d	16.4626 c
		T	9.3203 a	21.3191 d	13.6090 b
	2	HB	15.3178 b	21.5560 c	19.1482 c
		T	9.2896 a	21.5560 c	13.1324 b
	3	HB	14.3329 b	21.1794 d	17.8386 c
		T	8.0016 a	22.6645 d	13.6728 b
	4	HB	7.0932 b	0.5307 a	1.0726 a
		T	5.8020 b	14.3540 d	10.8849 c
	5	HB	6.7930 b	2.2685 a	2.3474 a
		T	5.8656 b	13.0877 d	11.7714 c
2	S1	HB	7.3065 c	1.9702 a	4.7236 b
		T	3.9404 ab	12.8202 d	11.8351 d
	2	HB	6.6100 b	0.9438 a	2.0501 a
		T	4.9645 b	11.7907 c	10.6843 c
	3	HB	6.5893 c	1.3234 a	2.3311 ab
		T	4.6229 bc	11.7742 d	11.6163 d
	4	HB	7.0487 b	1.4107 a	2.1268 a
		T	4.7323 b	14.4332 d	11.4791 c
	5	HB	4.1809 b	1.4600 a	1.7539 a
		T	3.0436 b	11.3269 c	11.3259 c
3	S1	HB	3.0595 b	1.7151 a	0.3636 a
		T	5.0175 b	10.6536 c	10.1245 c
	2	HB	4.8965 c	0.7898 a	1.4567 a
		T	4.1318 b	13.5765 d	9.6725 e
	3	HB	6.3895 b	1.2823 a	1.6726 a
		T	4.5230 b	11.8506 c	11.0596 c
	4	HB	3.6904 b	2.2253 a	3.7368 a
		T	3.6250 a	12.7769 c	11.5298 c
	5	HB	5.1752 b	0.7269 a	1.0629 a
		T	5.7193 b	11.0422 c	11.0269 c

APPENDIX 28: CONTINUED

DATA harvest 6: SECONDARY : RSAA

T1	S1	HB	VB	14.5946	12.0219	14.7368
T1	S1	HB	VM	21.6216	16.9399	22.1053
T1	S1	HB	VT	18.3784	13.1148	17.8947
T1	S1	HT	VB	15.2703	8.7432	8.9474
T1	S1	HT	VM	20.5405	21.3115	22.1053
T1	S1	HT	VT	14.5946	12.0219	14.2105
T1	S2	HB	VB	15.0289	15.1351	15.7895
T1	S2	HB	VM	21.9653	22.7027	20.0000
T1	S2	HB	VT	18.4971	20.0000	18.9474
T1	S2	HT	VB	9.2486	7.5676	11.0526
T1	S2	HT	VM	21.9653	22.7027	20.0000
T1	S2	HT	VT	13.2948	11.6919	14.2105
T1	S3	HB	VB	14.2857	14.3564	14.3564
T1	S3	HB	VM	22.4490	20.2970	20.7921
T1	S3	HB	VT	15.3673	17.8218	17.3267
T1	S3	HT	VB	8.1633	7.9208	7.9208
T1	S3	HT	VM	22.4490	22.7723	22.7723
T1	S3	HT	VT	14.2857	13.3663	13.3663
T1	S4	HB	VB	7.0652	6.3492	7.8652
T1	S4	HB	VM	1.0870	0.5291	0.0000
T1	S4	HB	VT	1.6304	1.5873	0.0000
T1	S4	HT	VB	4.3478	6.8783	6.1798
T1	S4	HT	VM	16.8478	12.1693	14.0449
T1	S4	HT	VT	10.8696	11.1111	10.6742
T1	S5	HB	VB	6.9744	4.6632	6.7416
T1	S5	HB	VM	5.7692	1.0363	0.0000
T1	S5	HB	VT	3.8462	2.0725	1.1236
T1	S5	HT	VB	6.4103	7.2539	3.9326

T1	S5	HT	VM	16.6667	13.9896	14.6067
T1	S5	HT	VT	14.1026	8.2902	12.9213
T2	S1	HB	VB	5.8480	6.5476	9.5238
T2	S1	HB	VM	2.3392	1.1905	2.3810
T2	S1	HB	VT	0.4327	4.7619	2.9762
T2	S1	HT	VB	4.6764	4.1667	2.9762
T2	S1	HT	VM	12.8655	10.7143	14.8810
T2	S1	HT	VT	11.6959	10.1190	13.6905
T2	S2	HB	VB	0.7797	5.6818	7.3684
T2	S2	HB	VM	1.6949	1.1364	0.0000
T2	S2	HB	VT	2.8249	2.2727	1.0526
T2	S2	HT	VB	5.0847	4.5455	5.2632
T2	S2	HT	VM	12.4294	11.3636	11.5789
T2	S2	HT	VT	11.2994	10.2273	10.5263
T2	S3	HB	VB	0.5217	7.1856	0.0606
T2	S3	HB	VM	2.1739	1.7964	0.0000
T2	S3	HB	VT	2.1739	2.3952	2.4242
T2	S3	HT	VB	5.4348	4.1916	4.2424
T2	S3	HT	VM	13.0435	11.9760	10.3030
T2	S3	HT	VT	11.9565	11.3772	11.5152
T2	S4	HB	VB	7.1895	8.9286	5.0279
T2	S4	HB	VM	1.9608	0.5952	1.6760
T2	S4	HB	VT	0.6536	2.3810	3.3520
T2	S4	HT	VB	3.9216	3.5714	0.7039
T2	S4	HT	VM	14.3791	16.0714	12.8492
T2	S4	HT	VT	13.0719	11.3095	10.0559
T2	S5	HB	VB	2.9126	4.5455	5.0847
T2	S5	HB	VM	0.9709	3.4091	0.0000
T2	S5	HB	VT	2.4272	1.7045	1.1299
T2	S5	HT	VB	0.7961	6.2500	5.0847
T2	S5	HT	VM	10.1942	10.2273	13.5593
T2	S5	HT	VT	10.1942	9.6591	14.1243
T3	S1	HB	VB	5.0562	7.8313	5.2910
T3	S1	HB	VM	2.8090	1.8072	0.5291
T3	S1	HB	VT	0.5618	0.0000	0.5291
T3	S1	HT	VB	5.6180	3.6145	5.8201
T3	S1	HT	VM	7.3034	15.6627	0.9947

APPENDIX 29: PERCENTAGE DISTRIBUTION OF STERILITY INDEX (PERCENTAGE OF STERILE OVULS "D" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) IN 6 POSITIONS WITHIN PRIMARY HEADS = RSA

TEDDYBEAR : HARVEST 1; PRIMARY :

DATA
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HARVEST 1: PRIMARY : RSA

T1	S1	HB	VB	10.1449	0.0000	0.0000
T1	S1	HB	VM	20.2899	0.0000	0.0000
T1	S1	HB	VT	14.0097	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	2.4155	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	10.7623	6.9109	12.7753
T1	S2	HB	VM	10.7623	4.9505	10.5727
T1	S2	HB	VT	14.3478	8.4158	12.7753
T1	S2	HT	VB	3.5874	1.4851	5.2863
T1	S2	HT	VM	8.5202	6.4158	13.6564
T1	S2	HT	VT	4.4843	1.9802	3.9648
T1	S3	HB	VB	0.4950	0.0000	0.0000
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	1.4851	0.0000	0.0000
T1	S3	HT	VB	1.4851	0.0000	2.8302
T1	S3	HT	VM	3.9604	0.0000	5.1887
T1	S3	HT	VT	0.4950	0.0000	1.8868
T2	S1	HB	VB	0.0000	0.0000	0.0000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	0.0000	0.0000	0.0000
T2	S1	HT	VM	0.0000	0.0000	0.0000
T2	S1	HT	VT	0.0000	0.0000	0.0000
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	0.0000	0.0000
T2	S2	HT	VM	0.0000	0.0000	0.0000
T2	S2	HT	VT	0.0000	0.0000	0.0000
T2	S3	HB	VB	0.0000	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	0.0000	0.0000	0.0000
T2	S3	HT	VM	0.0000	0.0000	0.0000
T2	S3	HT	VT	0.0000	0.0000	0.0000
T3	S1	HB	VB	0.0000	0.0000	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	0.0000	0.0000	0.0000
T3	S1	HT	VM	0.0000	0.0000	0.0000
T3	S1	HT	VT	0.0000	0.0000	0.0000
T3	S2	HB	VB	0.0000	0.0000	0.0000
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	0.0000	0.0000	0.0000
T3	S2	HT	VM	0.0000	0.0000	0.0000
T3	S2	HT	VT	0.0000	0.0000	0.0000
T3	S3	HB	VB	0.0000	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.0000	0.0000
T3	S3	HT	VM	0.0000	0.0000	0.0000
T3	S3	HT	VT	0.0000	0.0000	0.0000

APPENDIX 29: CONTINUED

TEDDYBEAR : HARVEST 1; PRIMARY : ~~*DA~~ RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	3.3816 cd	6.7633 d	4.6699 bc
		T	0.0000 a	0.8052 ab	0.0000 a
	2	HB	10.8162 b	6.7618 b	11.8470 c
		T	3.4530 a	10.1975 bc	3.4764 a
	3	HB	0.1650 a	0.0000 a	0.4950 a
		T	1.4384 a	3.0497 a	0.7939 a
2	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
3	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a

APPENDIX 29: CONTINUED

DATA

HARVEST 2; PRIMARY : RSA

T1	S1	HB	VB	13.0653	12.6437	12.2172
T1	S1	HB	VM	21.1055	24.1379	21.7195
T1	S1	HB	VT	10.0905	18.3908	17.1946
T1	S1	HT	VB	4.5226	3.4483	4.9774
T1	S1	HT	VM	10.5528	17.8161	19.0045
T1	S1	HT	VT	4.0201	4.0230	5.4299
T1	S2	HB	VB	12.0000	13.4884	11.2195
T1	S2	HB	VM	20.0000	14.4186	10.5366
T1	S2	HB	VT	17.0000	14.4186	17.5610
T1	S2	HT	VB	4.5000	5.1163	4.3902
T1	S2	HT	VM	11.0000	15.8140	15.6098
T1	S2	HT	VT	3.5000	6.0465	4.8780
T1	S3	HB	VB	7.7320	3.1963	9.5238
T1	S3	HB	VM	0.5155	0.0000	3.3333
T1	S3	HB	VT	2.5773	3.6530	3.8095
T1	S3	HT	VB	6.7010	5.4795	4.2857
T1	S3	HT	VM	13.4021	10.5023	14.7619
T1	S3	HT	VT	4.6392	4.5662	4.7619
T1	S4	HB	VB	0.0000	0.0000	0.0000
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	0.0000	0.0000	2.7523
T1	S4	HT	VM	0.0000	0.0000	0.9174
T1	S4	HT	VT	0.0000	0.0000	0.4587
T1	S5	HB	VB	0.0000	0.0000	0.0000
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	0.0000	0.0000	0.0000
T1	S5	HT	VM	0.0000	0.0000	0.0000
T1	S5	HT	VT	0.0000	0.0000	0.0000
T2	S1	HB	VB	0.0000	0.0000	0.4630
T2	S1	HB	VM	0.9756	0.5208	0.0000
T2	S1	HB	VT	1.4634	0.0000	0.9259
T2	S1	HT	VB	0.4878	0.5208	0.0000
T2	S1	HT	VM	1.4634	1.5625	3.2407
T2	S1	HT	VT	1.4634	1.0417	2.7778
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	0.0000	0.0000
T2	S2	HT	VM	0.0000	0.0000	0.0000
T2	S2	HT	VT	0.0000	0.0000	0.0000
T2	S3	HB	VB	0.0000	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	0.0000	0.0000	0.4695
T2	S3	HT	VM	0.0000	0.4566	0.0000
T2	S3	HT	VT	0.9662	0.0000	0.0000
T2	S4	HB	VB	0.0000	0.0000	0.0000
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	0.0000	0.0000	0.4425
T2	S4	HT	VM	0.0000	0.0000	0.0000
T2	S4	HT	VT	0.0000	0.0000	0.0000
T2	S5	HB	VB	0.0000	0.0000	0.0000
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.0000	0.0000	0.0000
T2	S5	HT	VM	0.0000	0.0000	0.0000
T2	S5	HT	VT	0.0000	0.0000	0.0000
T3	S1	HB	VB	0.0000	0.0000	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	0.5076	0.4808	0.5208

T3	S1	HT	VM	0.0000	0.0000	1.5625
T3	S1	HT	VT	1.0152	0.0000	1.5625
T3	S2	HB	VB	0.0000	0.0000	0.0000
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	0.0000	0.0000	0.0000
T3	S2	HT	VM	0.0000	0.0000	0.0000
T3	S2	HT	VT	0.0000	0.0000	0.0000
T3	S3	HB	VB	0.0000	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.4785	0.0000
T3	S3	HB	VT	0.4608	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.0000	0.8929
T3	S3	HT	VM	0.9217	0.0000	2.2321
T3	S3	HT	VT	0.0000	0.0000	0.4464
T3	S4	HB	VB	0.0000	0.0000	0.4762
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	0.0000	0.0000	0.0000
T3	S4	HT	VM	0.4630	0.0000	0.9524
T3	S4	HT	VT	0.4630	0.4630	0.0000
T3	S5	HB	VB	0.0000	0.0000	0.0000
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	0.0000	0.0000	0.0000
T3	S5	HT	VM	0.0000	0.0000	0.0000
T3	S5	HT	VT	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 2; PRIMARY : RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	12.6421 b	22.3210 1	17.8919 d
		T	4.3161 a	15.7911 c	4.4910 a
	2	HB	12.2360 b	17.6517 d	16.3265 d
		T	4.6688 a	14.1412 c	4.8082 a
	3	HB	6.6174 d	1.2829 a	3.3466 b
		T	5.4887 cd	12.8867 1	4.6558 bc
	4	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.9174 a	0.3058 a	0.1529 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
2	S1	HB	0.1543 a	0.4968 ab	0.7964 ab
		T	0.3362 a	2.0809 b	1.7610 ab
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1565 a	0.1522 a	0.3221 a
	4	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1475 a	0.0000 a	0.0000 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
3	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.5031 a	0.5208 a	0.8592 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.0000 a	0.1595 a	0.1536 a
		T	0.2976 a	1.0513 a	0.1488 a
	4	HB	0.1587 a	0.0000 a	0.0000 a
		T	0.0000 a	0.4718 a	0.3086 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a

APPENDIX 29: CONTINUED

DATA

HARVEST 3; PRIMARY : RSA

T1	S1	HB	VB	12.1827	13.5514	10.3774
T1	S1	HB	VM	20.3046	20.5607	15.5660
T1	S1	HB	VT	18.2741	17.7570	12.2642
T1	S1	HT	VB	5.0761	7.0093	5.1887
T1	S1	HT	VM	14.2132	15.4206	12.2642
T1	S1	HT	VT	6.5990	4.2056	4.7170
T1	S2	HB	VB	10.0529	14.3519	13.2075
T1	S2	HB	VM	22.2222	12.5000	17.9245
T1	S2	HB	VT	17.9894	16.2037	16.9811
T1	S2	HT	VB	3.7037	6.4815	5.6604
T1	S2	HT	VM	13.2275	16.2037	15.0943
T1	S2	HT	VT	4.7619	4.6296	4.2453
T1	S3	HB	VB	2.2523	1.9417	2.3256
T1	S3	HB	VM	0.0000	0.4854	0.4651
T1	S3	HB	VT	1.8018	0.0000	2.3256
T1	S3	HT	VB	4.0541	3.3981	5.5814
T1	S3	HT	VM	6.7568	8.2524	11.1628
T1	S3	HT	VT	3.1532	0.9709	4.1860
T1	S4	HB	VB	0.0000	0.0000	0.4808
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.4651	0.4808
T1	S4	HT	VB	1.0000	0.4651	1.4423
T1	S4	HT	VM	1.0000	1.3953	1.9231
T1	S4	HT	VT	0.5000	0.9302	0.9615
T1	S5	HB	VB	0.0000	0.0000	0.0000
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	0.0000	0.0000	0.4695
T1	S5	HT	VM	0.0000	0.0000	1.4085
T1	S5	HT	VT	0.0000	0.0000	0.0000
T2	S1	HB	VB	0.0000	0.0000	0.0000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	0.5348	0.4587	0.0000
T2	S1	HT	VM	2.1390	2.2936	2.2624
T2	S1	HT	VT	0.5348	0.0000	0.0000
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	0.0000	0.0000
T2	S2	HT	VM	1.0000	0.4673	1.6304
T2	S2	HT	VT	0.5000	0.0000	0.5435
T2	S3	HB	VB	0.0000	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	0.0000	0.4566	0.0000
T2	S3	HT	VM	0.4651	0.0000	0.0000
T2	S3	HT	VT	0.0000	0.4566	0.0000
T2	S4	HB	VB	0.0000	0.0000	0.0000
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	0.0000	0.0000	0.9346
T2	S4	HT	VM	0.9901	0.0000	0.9346
T2	S4	HT	VT	0.0000	0.0000	0.0000
T2	S5	HB	VB	0.0000	0.0000	0.0000
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.4765	0.0000	0.0000
T2	S5	HT	VM	0.4765	0.0000	0.0000
T2	S5	HT	VT	0.0000	0.0000	0.0000
T3	S1	HB	VB	0.4464	0.0000	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.4808	0.0000
T3	S1	HT	VB	0.0000	0.0000	0.0000
T3	S1	HT	VM	0.8929	0.9615	0.0000
T3	S1	HT	VT	0.8929	0.4808	0.0000
T3	S2	HB	VB	0.0000	0.0000	0.0000
T3	S2	HB	VM	0.0000	0.0000	0.0000

T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	0.4831	0.0000	0.0000
T3	S2	HT	VM	0.9602	0.9302	0.4975
T3	S2	HT	VT	0.0000	0.0000	0.0000
T3	S3	HB	VB	0.0000	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.0000	0.0000
T3	S3	HT	VM	0.0000	0.0000	0.0000
T3	S3	HT	VT	0.0000	0.0000	0.0000
T3	S4	HB	VB	0.0000	0.0000	0.0000
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	0.0000	0.0000	0.0000
T3	S4	HT	VM	0.4878	0.4739	0.0000
T3	S4	HT	VT	0.4878	0.0000	0.4926
T3	S5	HB	VB	0.0000	0.0000	0.0000
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	0.0000	0.0000	0.0000
T3	S5	HT	VM	0.0000	0.0000	0.0000
T3	S5	HT	VT	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 3; PRIMARY : RSA

TSHV MEANS

			B	M	T
T1	S1	HB	12.0372 b	16.8105 1	16.0984 d
		T	5.7581 a	13.9600 c	5.1739 a
	2	HB	12.5374 b	17.5469 d	17.0581 d
		T	5.2819 a	14.8419 c	4.5456 a
	3	HB	2.1732 b	0.3169 a	1.3758 ab
		T	4.3445 c	6.7240 d	2.7700 b
	4	HB	0.1603 a	0.0000 a	0.3153 a
		T	0.9691 a	1.4395 a	0.7973 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1565 a	0.4695 a	0.0000 a
2	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.3312 a	2.2317 a	0.1783 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	1.0326 a	0.3478 a
	3	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1522 a	0.1550 a	0.1522 a
	4	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.3115 a	0.6416 a	0.0000 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1595 a	0.1595 a	0.0000 a
3	S1	HB	0.1488 a	0.0000 a	0.1603 a
		T	0.0000 a	0.6161 a	0.4579 a
	2	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.1610 a	0.7960 a	0.0000 a
	3	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	4	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.3266 a	0.3268 a
	5	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000

APPENDIX 29: CONTINUED

DATA
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HARVEST 4; PRIMARY : RSA

T1	S1	HB	VB	14.0097	11.4286	13.3971
T1	S1	HB	VM	21.2560	21.7143	22.0096
T1	S1	HB	VT	17.3913	16.2857	17.2249
T1	S1	HT	VB	6.2802	4.0000	4.7847
T1	S1	HT	VM	12.0773	17.7143	17.7033
T1	S1	HT	VT	3.6647	4.5714	3.8278
T1	S2	HB	VB	12.1693	14.6119	10.3627
T1	S2	HB	VM	15.3439	17.8082	12.9534
T1	S2	HB	VT	15.3439	17.3516	13.4715
T1	S2	HT	VB	5.2910	5.9361	4.1451
T1	S2	HT	VM	13.7566	11.8721	13.4715
T1	S2	HT	VT	4.7619	5.0228	4.1451
T1	S3	HB	VB	2.7273	4.8077	2.9703
T1	S3	HB	VM	0.0000	0.9615	0.0000
T1	S3	HB	VT	1.3635	0.9615	1.9802
T1	S3	HT	VB	4.5455	2.8846	3.9604
T1	S3	HT	VM	7.2727	7.6923	6.4356
T1	S3	HT	VT	1.3636	3.3654	3.9604
T1	S4	HB	VB	0.0000	0.0000	0.0000
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	0.0000	0.0000	0.0000
T1	S4	HT	VM	0.0000	0.4545	0.0000
T1	S4	HT	VT	0.0000	0.0000	0.0000
T1	S5	HB	VB	0.0000	0.0000	0.0000
T1	S5	HB	VM	0.4673	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	0.9346	0.0000	0.9174
T1	S5	HT	VM	0.0000	0.0000	0.4587
T1	S5	HT	VT	0.0000	0.4808	0.4587
T2	S1	HB	VB	0.0000	0.0000	0.0000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	0.0000	0.0000	0.0000
T2	S1	HT	VM	0.0000	0.4673	0.9615
T2	S1	HT	VT	0.0000	0.0000	0.0000
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	0.0000	0.0000
T2	S2	HT	VM	0.0000	0.0000	0.4762
T2	S2	HT	VT	0.0000	0.0000	0.0000
T2	S3	HB	VB	0.0000	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	0.5025	0.0000	0.0000
T2	S3	HT	VM	1.0050	0.9174	0.4762
T2	S3	HT	VT	0.0000	0.0000	0.0000
T2	S4	HB	VB	0.0000	0.0000	0.0000
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	0.0000	0.0000	0.0000
T2	S4	HT	VM	0.0000	0.0000	0.9132
T2	S4	HT	VT	0.0000	0.0000	0.0000
T2	S5	HB	VB	0.0000	0.0000	0.4386
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.0000	0.0000	0.4386
T2	S5	HT	VM	0.4705	0.0000	0.0000
T2	S5	HT	VT	0.0000	0.4902	0.4386
T3	S1	HB	VB	0.0000	0.0000	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.4673	0.0000	0.0000
T3	S1	HT	VB	0.0000	1.9048	0.9852
T3	S1	HT	VM	2.8037	1.9048	0.0000
T3	S1	HT	VT	0.4673	0.4762	0.9852
T3	S2	HB	VB	0.0000	0.0000	0.0000

T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.4878	0.0000	0.0000
T3	S2	HT	VB	0.9756	0.0000	0.4608
T3	S2	HT	VM	0.4878	0.4762	0.9217
T3	S2	HT	VT	0.0000	0.0000	0.0000
T3	S3	HB	VB	0.4975	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.4806	0.4717
T3	S3	HT	VM	0.4975	1.4423	0.0000
T3	S3	HT	VT	0.4975	0.0000	0.0000
T3	S4	HB	VB	0.0000	0.0000	0.0000
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	0.4367	0.0000	0.0000
T3	S4	HT	VM	2.1834	0.4630	0.4608
T3	S4	HT	VT	0.0000	0.0000	0.0000
T3	S5	HB	VB	0.0000	0.0000	0.0000
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	0.4765	0.0000	0.0000
T3	S5	HT	VM	0.0000	0.4739	0.4739
T3	S5	HT	VT	0.4765	0.0000	0.4739

TEDDYBEAR : HARVEST 4; PRIMARY : RSA

TSHV MEANS

			B	M	T
T1	S1	HB	12.9451b	21.6601	17.6340d
		T	5.0216a	15.8316c	4.0860a
	2	HB	12.3813b	15.3605c	15.3890c
		T	5.1241a	13.0334b	4.6433a
	3	HB	3.5018c	0.3205a	1.4351a
		T	3.7968c	7.1336d	2.8965c
	4	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.1515a	0.0000a
	5	HB	0.0000a	0.1558a	0.0000a
		T	0.6173a	0.1529a	0.3132a
2	S1	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.4763a	0.0000a
	2	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.1567a	0.0000a
	3	HB	0.0000a	0.0000a	0.0000a
		T	0.1675a	0.7995a	0.0000a
	4	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.3044a	0.0000a
	5	HB	0.1462a	0.0000a	0.0000a
		T	0.1462a	0.1595a	0.3096a
3	S1	HB	0.0000a	0.0000b	0.1558a
		T	0.9633ab	1.5695a	0.6429ab
	2	HB	0.0000a	0.0000a	0.1626a
		T	0.4788a	0.6266a	0.0000a
	3	HB	0.1658a	0.0000a	0.0000a
		T	0.3175a	0.6466a	0.1658a
	4	HB	0.0000a	0.0000a	0.0000a
		T	0.1456a	1.0357a	0.0000a
	5	HB	0.0000a	0.0000a	0.0000a
		T	0.1595a	0.3160a	0.3175a

APPENDIX 29: CONTINUED

DATA
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HARVEST 5; PRIMARY : RSA

T1	S1	HB	VB	11.6279	12.6440	13.5747
T1	S1	HB	VM	21.3953	22.0183	19.9095
T1	S1	HB	VT	17.6744	16.5138	17.1946
T1	S1	HT	VB	4.1800	5.0459	6.7873
T1	S1	HT	VM	19.0698	13.3028	15.8371
T1	S1	HT	VT	0.5116	5.0459	7.6923
T1	S2	HB	VB	13.6614	12.9630	11.6822
T1	S2	HB	VM	20.7921	21.2963	12.1495
T1	S2	HB	VT	17.6218	17.5926	13.5514
T1	S2	HT	VB	4.9505	5.5556	5.6075
T1	S2	HT	VM	16.3306	16.0556	19.1589
T1	S2	HT	VT	3.9604	4.6296	5.6075
T1	S3	HB	VB	5.6872	2.3585	3.6530
T1	S3	HB	VM	0.4759	1.6868	0.4566
T1	S3	HB	VT	9.9479	3.7736	0.9132
T1	S3	HT	VB	7.1090	4.7170	5.9361
T1	S3	HT	VM	6.6351	13.2075	11.8721
T1	S3	HT	VT	2.3697	1.6868	5.4795
T1	S4	HB	VB	0.0000	0.0000	0.0000
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.4705	0.0000	0.0000
T1	S4	HT	VB	0.4705	0.4878	1.4925
T1	S4	HT	VM	1.9139	0.4878	1.9900
T1	S4	HT	VT	0.0000	0.4878	0.9950
T1	S5	HB	VB	0.0000	0.0000	0.4739
T1	S5	HB	VM	0.4404	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	1.3393	0.0000	0.4739
T1	S5	HT	VM	0.4404	1.9512	1.8957
T1	S5	HT	VT	0.4404	0.0000	0.4739
T2	S1	HB	VB	0.0000	0.0000	2.4155
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.9709	1.4493
T2	S1	HT	VB	0.0000	0.0000	1.4493
T2	S1	HT	VM	0.9756	0.9709	0.9662
T2	S1	HT	VT	0.4878	0.0000	0.4831
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.4762	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	2.3810	0.0000
T2	S2	HT	VM	1.4354	0.9524	0.0000
T2	S2	HT	VT	0.4705	0.4762	0.0000
T2	S3	HB	VB	0.0000	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.4405
T2	S3	HT	VB	0.0000	0.9346	1.7621
T2	S3	HT	VM	0.0000	0.0000	1.3216
T2	S3	HT	VT	0.0000	0.0000	0.0000
T2	S4	HB	VB	0.0000	0.0000	0.0000
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.4739	0.0000	0.4926
T2	S4	HT	VB	0.0000	0.9615	0.0000
T2	S4	HT	VM	1.4218	1.9231	0.4926
T2	S4	HT	VT	0.4739	0.0000	0.0000
T2	S5	HB	VB	0.0000	0.0000	0.0000
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.0000	1.4354	0.0000
T2	S5	HT	VM	0.4705	0.4785	0.9390
T2	S5	HT	VT	0.0000	0.0000	0.0000
T3	S1	HB	VB	0.0000	0.5405	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	0.9259	1.0811	0.0000
T3	S1	HT	VM	1.3859	0.5405	4.0816
T3	S1	HT	VT	0.4630	0.0000	0.0000
T3	S2	HB	VB	0.0000	0.0000	0.0000
T3	S2	HB	VM	0.0000	0.0000	0.0000

APPENDIX 29: CONTINUED

T3	S2	HB	VT	0.4673	0.0000	0.0000
T3	S2	HT	VB	0.0000	0.0000	0.5025
T3	S2	HT	VM	1.8692	0.5102	0.5025
T3	S2	HT	VT	0.4673	0.0000	0.5025
T3	S3	HB	VB	0.4525	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.9804	0.0000
T3	S3	HT	VB	1.3575	0.0000	0.0000
T3	S3	HT	VM	0.9050	0.4902	0.5000
T3	S3	HT	VT	0.0000	0.4902	0.0000
T3	S4	HB	VB	0.0000	0.0000	0.0000
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	0.0000	0.5076	0.0000
T3	S4	HT	VM	0.4854	1.5228	0.9756
T3	S4	HT	VT	0.4854	1.0152	0.4878
T3	S5	HB	VB	0.0000	0.0000	0.0000
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	0.0000	0.0000	0.4464
T3	S5	HT	VM	0.4762	0.0000	0.8929
T3	S5	HT	VT	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 5; PRIMARY : RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	12.6822b	21.1077d	17.1276c
		T	5.3397a	16.0699c	6.4166a
	2	HB	12.8355b	16.0793d	16.3219c
		T	5.3712a	17.8564cd	4.7325a
	3	HB	3.8996c	0.9391a	1.8782ab
		T	5.9207d	10.5716e	3.2453bc
	4	HB	0.0000a	0.0000a	0.1595a
		T	0.6196a	1.4639a	0.4943a
	5	HB	0.1580a	0.1408a	0.0000a
		T	0.6044a	1.4311a	0.3068a
2	S1	HB	0.8052a	0.0000a	0.8067a
		T	0.4831a	0.9709a	0.3236a
	2	HB	0.0000a	0.1567a	0.0000a
		T	0.7937a	0.7959a	0.3162a
	3	HB	0.0000a	0.0000a	0.1468a
		T	0.8959a	0.4405a	0.0000a
	4	HB	0.0000a	0.0000a	0.3222a
		T	0.3205a	1.2792a	0.1580a
	5	HB	0.0000a	0.0000a	0.0000a
		T	0.4785a	0.6320a	0.0000a
3	S1	HB	0.1802a	0.0000a	0.0000a
		T	0.0690ab	2.0037c	0.1543a
	2	HB	0.0000a	0.0000a	0.1558a
		T	0.1675a	0.9606a	0.3233a
	3	HB	0.1508a	0.0000a	0.3268a
		T	0.4525a	0.6317a	0.1634a
	4	HB	0.0000a	0.0000a	0.0000a
		T	0.1692a	0.9946a	0.6628a
	5	HB	0.0000a	0.0000a	0.0000a
		T	0.1488a	0.4503a	0.0000a

APPENDIX 29: CONTINUED

DATA
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HARVEST 6; PRIMARY : RSA

T1	S1	HB	VB	12.8866	13.1707	12.4402
T1	S1	HB	VM	21.6495	19.5122	22.0096
T1	S1	HB	VT	17.5258	16.5366	17.2249
T1	S1	HT	VB	4.6392	6.3415	5.7416
T1	S1	HT	VM	10.0412	13.1707	20.5742
T1	S1	HT	VT	4.6392	5.8537	4.3062
T1	S2	HB	VB	15.0000	12.3711	15.7931
T1	S2	HB	VM	20.0000	21.6495	19.7044
T1	S2	HB	VT	10.0000	17.5256	17.7340
T1	S2	HT	VB	5.5000	5.1546	5.9113
T1	S2	HT	VM	17.0000	15.4639	14.7783
T1	S2	HT	VT	5.5000	4.1237	6.4039
T1	S3	HB	VB	5.5300	6.8493	2.6316
T1	S3	HB	VM	0.9217	1.8265	0.4386
T1	S3	HB	VT	0.9217	1.8265	0.4386
T1	S3	HT	VB	5.5300	3.6530	4.8246
T1	S3	HT	VM	10.1362	11.4155	9.6491
T1	S3	HT	VT	2.3041	4.1096	4.3860
T1	S4	HB	VB	0.9259	0.5000	1.5544
T1	S4	HB	VM	1.3889	2.0000	0.5181
T1	S4	HB	VT	0.4630	0.0000	1.5544
T1	S4	HT	VB	0.4630	0.5000	0.5181
T1	S4	HT	VM	1.8519	1.0000	2.0725
T1	S4	HT	VT	0.0000	0.0000	1.0363
T1	S5	HB	VB	0.0000	0.6803	0.0000
T1	S5	HB	VM	0.0000	0.6803	0.0000
T1	S5	HB	VT	1.5228	0.0000	0.0000
T1	S5	HT	VB	1.5228	0.6803	0.0000
T1	S5	HT	VM	2.0305	1.3605	1.5152
T1	S5	HT	VT	1.0152	0.6803	0.0000
T2	S1	HB	VB	0.0000	3.5533	1.4085
T2	S1	HB	VM	2.4390	2.0305	1.4085
T2	S1	HB	VT	2.9268	4.5685	1.4085
T2	S1	HT	VB	0.4878	1.0152	1.4085
T2	S1	HT	VM	4.3902	3.5533	4.6948
T2	S1	HT	VT	0.4878	3.0457	2.8169
T2	S2	HB	VB	0.4926	0.4651	0.0000
T2	S2	HB	VM	0.0000	0.9302	0.4673
T2	S2	HB	VT	0.4926	0.0000	1.8692
T2	S2	HT	VB	0.9852	2.7907	1.4019
T2	S2	HT	VM	1.9704	0.4651	1.4019
T2	S2	HT	VT	0.9852	0.0000	0.0000
T2	S3	HB	VB	0.8850	0.0000	1.3761
T2	S3	HB	VM	0.4425	0.0000	1.8349
T2	S3	HB	VT	0.8850	0.9524	1.3761
T2	S3	HT	VB	0.0000	0.4762	0.0000
T2	S3	HT	VM	1.7699	0.9524	1.3761
T2	S3	HT	VT	0.8850	0.0000	0.4587
T2	S4	HB	VB	0.0000	0.0000	1.4423
T2	S4	HB	VM	1.3953	0.4975	2.8846
T2	S4	HB	VT	0.9302	0.9950	0.4808
T2	S4	HT	VB	0.4651	0.4975	0.4808
T2	S4	HT	VM	0.9302	2.4876	3.3654
T2	S4	HT	VT	0.4651	0.0000	0.4808
T2	S5	HB	VB	0.4739	0.9569	0.0000
T2	S5	HB	VM	0.0000	0.9569	0.4926
T2	S5	HB	VT	1.8957	0.9569	0.9852
T2	S5	HT	VB	0.9479	0.0000	0.0000
T2	S5	HT	VM	1.4218	1.9139	2.4631
T2	S5	HT	VT	1.8957	1.9139	0.0000
T3	S1	HB	VB	0.9434	0.0000	1.3514
T3	S1	HB	VM	0.4717	0.4902	0.6757
T3	S1	HB	VT	1.8868	0.0000	1.3514
T3	S1	HT	VB	0.9434	1.4706	0.6757
T3	S1	HT	VM	3.3019	0.9804	4.0541
T3	S1	HT	VT	0.4717	1.4706	2.0270
T3	S2	HB	VB	0.0000	1.0204	0.0000
T3	S2	HB	VM	0.9950	1.0204	1.4851

APPENDIX 29: CONTINUED

T3	S2	HB	VT	1.9900	0.5102	0.4950
T3	S2	HT	VB	0.9950	1.0204	0.4950
T3	S2	HT	VM	0.9950	3.0612	0.0000
T3	S2	HT	VT	0.0000	0.5102	0.4950
T3	S3	HB	VB	0.4630	0.4762	1.8779
T3	S3	HB	VM	0.0000	0.9524	2.3474
T3	S3	HB	VT	1.3809	0.4762	0.0000
T3	S3	HT	VB	0.4630	0.0000	0.0000
T3	S3	HT	VM	1.3809	0.0000	3.7559
T3	S3	HT	VT	0.4630	0.0000	1.4085
T3	S4	HB	VB	0.9091	0.0000	0.4484
T3	S4	HB	VM	2.2727	1.5544	0.4484
T3	S4	HB	VT	0.0000	1.5544	1.3453
T3	S4	HT	VB	0.4545	0.0000	0.4484
T3	S4	HT	VM	1.6102	0.5181	0.0000
T3	S4	HT	VT	0.9091	0.0000	0.8969
T3	S5	HB	VB	0.4695	0.4762	1.4563
T3	S5	HB	VM	0.0000	0.4762	0.4854
T3	S5	HB	VT	0.4695	0.0000	0.4854
T3	S5	HT	VB	0.0000	0.4762	0.4854
T3	S5	HT	VM	0.4695	2.3810	0.9709
T3	S5	HT	VT	0.4695	0.0000	0.9709

TEDDYBEAR : HARVEST 6; PRIMARY : RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	12.6325 b	21.0571 e	17.7624 d
		T	5.5741 a	17.2620 c	4.9330 a
	2	HB	13.0547 b	20.4513 d	17.7533 b
		T	5.5220 a	15.7474 b	5.3426 a
	3	HB	5.0036	1.0622	1.0622
		T	4.6692	10.4010	3.5999
	4	HB	0.9934 a	1.3023 a	0.6725 a
		T	0.4937 a	1.6415 a	0.3454 a
	5	HB	0.2268 a	0.2268 a	0.5076 a
		T	0.7344 a	1.6354 a	0.5652 a
2	S1	HB	1.6539 ab	1.9593 ab	2.9679 bc
		T	0.9705 a	4.2128 c	2.1168 ab
	2	HB	0.3192 a	0.4658 a	0.7673 a
		T	1.7259 a	1.2791 a	0.3284 a
	3	HB	0.7537 a	0.7591 a	1.0712 a
		T	0.1587 a	1.3601 a	0.4479 a
	4	HB	0.4806 a	1.5925 ab	0.8020 ab
		T	0.4811 a	2.2611 b	0.3153 a
	5	HB	0.4770 a	0.4832 a	1.2793 a
		T	0.3160 a	1.9329 a	1.2699 a
3	S1	HB	0.7649 a	0.5459 a	1.0794 a
		T	1.0299 a	2.7708 b	1.3231 a
	2	HB	0.3401 a	1.1609 a	0.9984 a
		T	0.8368 a	1.3521 a	0.3351 a
	3	HB	0.9390 a	1.0999 a	0.6217 a
		T	0.1543 a	1.7149 a	0.6238 a
	4	HB	0.4525 a	1.4252 a	0.9666 a
		T	0.3010 a	0.7708 a	0.6020 a
	5	HB	0.8007 a	0.3205 a	0.3183 a
		T	0.3205 a	1.2738 a	0.4801 a

APPENDIX 30: PERCENTAGE DISTRIBUTION OF STERILITY INDEX (PERCENTAGE OF STERILE OVULES "D" FROM ALL 4 BASAL FLORET POSITIONS OF ALL SPIKELETS) IN 6 POSITIONS WITHIN SECONDARY HEADS = RSA

TEDDYBEAR : HARVEST 1; SECONDARY : RSA

DATA
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T1	S1	HB	VB	0.00000	0.00000	0.00000
T1	S1	HB	VM	0.00000	0.00000	0.00000
T1	S1	HB	VT	0.00000	0.00000	0.00000
T1	S1	HT	VB	0.00000	0.00000	0.00000
T1	S1	HT	VM	0.00000	0.00000	0.00000
T1	S1	HT	VT	0.00000	0.00000	0.00000
T1	S2	HB	VB	0.00000	0.00000	0.00000
T1	S2	HB	VM	0.00000	0.00000	0.00000
T1	S2	HB	VT	0.00000	0.00000	0.00000
T1	S2	HT	VB	0.00000	0.00000	0.00000
T1	S2	HT	VM	0.00000	0.00000	0.00000
T1	S2	HT	VT	0.00000	0.00000	0.00000
T1	S3	HB	VB	3.46535	5.58659	1.55440
T1	S3	HB	VM	6.43564	3.91061	4.14508
T1	S3	HB	VT	3.96040	5.02793	2.59067
T1	S3	HT	VB	0.00000	0.00000	0.00000
T1	S3	HT	VM	0.49505	6.14525	2.59067
T1	S3	HT	VT	0.49505	2.79330	0.51813
T2	S1	HB	VB	0.00000	0.00000	0.00000
T2	S1	HB	VM	0.00000	0.00000	0.00000
T2	S1	HB	VT	0.00000	0.00000	0.00000
T2	S1	HT	VB	0.00000	0.00000	0.00000
T2	S1	HT	VM	0.00000	0.00000	0.00000
T2	S1	HT	VT	0.00000	0.00000	0.00000
T2	S2	HB	VB	0.00000	0.00000	0.00000
T2	S2	HB	VM	0.00000	0.00000	0.00000
T2	S2	HB	VT	0.00000	0.00000	0.00000
T2	S2	HT	VB	0.00000	0.00000	0.00000
T2	S2	HT	VM	0.00000	0.00000	0.00000
T2	S2	HT	VT	0.00000	0.00000	0.00000
T2	S3	HB	VB	0.00000	0.00000	0.00000
T2	S3	HB	VM	0.00000	0.00000	0.00000
T2	S3	HB	VT	0.00000	0.00000	0.00000
T2	S3	HT	VB	0.00000	0.00000	0.00000
T2	S3	HT	VM	0.00000	0.00000	0.00000
T2	S3	HT	VT	0.00000	0.00000	0.00000
T3	S1	HB	VB	0.00000	0.00000	0.00000
T3	S1	HB	VM	0.00000	0.00000	0.00000
T3	S1	HB	VT	0.00000	0.00000	0.00000
T3	S1	HT	VB	0.00000	0.00000	0.00000
T3	S1	HT	VM	0.00000	0.00000	0.00000
T3	S1	HT	VT	0.00000	0.00000	0.00000
T3	S2	HB	VB	0.00000	0.00000	0.00000
T3	S2	HB	VM	0.00000	0.00000	0.00000
T3	S2	HB	VT	0.00000	0.00000	0.00000
T3	S2	HT	VB	0.00000	0.00000	0.00000
T3	S2	HT	VM	0.00000	0.00000	0.00000
T3	S2	HT	VT	0.00000	0.00000	0.00000
T3	S3	HB	VB	0.00000	0.00000	0.00000
T3	S3	HB	VM	0.00000	0.00000	0.00000
T3	S3	HB	VT	0.00000	0.00000	0.00000
T3	S3	HT	VB	0.00000	0.00000	0.00000
T3	S3	HT	VM	0.00000	0.00000	0.00000
T3	S3	HT	VT	0.00000	0.00000	0.00000

APPENDIX 30: CONTINUED

TEDDYBEAR : HARVEST 1/ SECONDARY : RSA

TSHV MEANS

			D	M	T
T1	S1	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
	2	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
	3	HB	3.53545 c	4.83045 d	3.85967 c
		T	0.00000 a	3.07679 c	1.26863 b
2	S1	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
	2	HB	0.00000 a	0.00000 a	0.[illegible]000 a
		T	0.00000 a	0.00000 a	0.00000 a
	3	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
3	S1	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
	2	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a
	3	HB	0.00000 a	0.00000 a	0.00000 a
		T	0.00000 a	0.00000 a	0.00000 a

APPENDIX 30: CONTINUED

DATA
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HARVEST 2; SECONDARY : RSA

T1	S1	HB	VB	10.5882	10.0000	9.7938
T1	S1	HB	VM	21.1765	22.2222	22.6804
T1	S1	HB	VT	16.8235	20.0000	16.5567
T1	S1	HT	VB	2.9412	1.6667	2.0619
T1	S1	HT	VM	14.1176	12.7778	11.3402
T1	S1	HT	VT	7.0588	3.8889	5.6701
T1	S2	HB	VB	8.1522	9.3023	10.1124
T1	S2	HB	VM	22.8261	23.2558	21.3483
T1	S2	HB	VT	19.5652	16.6047	20.2247
T1	S2	HT	VB	2.1739	1.7442	2.2472
T1	S2	HT	VM	11.4130	11.6279	10.6742
T1	S2	HT	VT	4.8913	5.8140	4.4944
T1	S3	HB	VB	7.1066	10.4478	6.7797
T1	S3	HB	VM	16.9349	15.9204	20.9040
T1	S3	HB	VT	10.5600	16.4179	10.6441
T1	S3	HT	VB	1.7751	3.9801	1.6949
T1	S3	HT	VM	11.8343	13.9303	11.2994
T1	S3	HT	VT	5.9172	3.9801	5.6497
T1	S4	HB	VB	2.7778	0.0000	0.5464
T1	S4	HB	VM	1.1111	4.6512	6.5574
T1	S4	HB	VT	1.6667	2.9070	3.2787
T1	S4	HT	VB	2.2222	0.0000	1.0929
T1	S4	HT	VM	5.5556	2.9070	3.2787
T1	S4	HT	VT	2.7778	0.5814	1.6393
T1	S5	HB	VB	0.4545	1.0309	0.5988
T1	S5	HB	VM	0.9091	0.5155	0.0000
T1	S5	HB	VT	0.9091	1.0309	1.7964
T1	S5	HT	VB	1.8182	1.0309	1.1976
T1	S5	HT	VM	3.6364	0.0000	4.1916
T1	S5	HT	VT	0.0000	0.0000	2.3952
T2	S1	HB	VB	0.6173	2.4096	1.7241
T2	S1	HB	VM	4.3210	1.2048	1.1494
T2	S1	HB	VT	11.1111	1.2048	5.7471
T2	S1	HT	VB	0.6173	0.6024	0.5747
T2	S1	HT	VM	2.4691	4.8193	5.1724
T2	S1	HT	VT	3.0864	1.2048	1.1494
T2	S2	HB	VB	1.1364	0.0000	0.0000
T2	S2	HB	VM	2.2727	0.0000	3.3333
T2	S2	HB	VT	2.2727	0.5952	1.6667
T2	S2	HT	VB	1.7045	0.0000	0.0000
T2	S2	HT	VM	1.7045	0.5952	0.5556
T2	S2	HT	VT	1.1364	0.5952	1.6667
T2	S3	HB	VB	0.0000	1.3793	1.7341
T2	S3	HB	VM	1.0471	4.1379	0.5780
T2	S3	HB	VT	0.5236	2.0690	1.1561
T2	S3	HT	VB	0.0000	0.0000	0.0000
T2	S3	HT	VM	1.5707	2.0690	1.7341
T2	S3	HT	VT	0.5236	0.6897	0.5780
T2	S4	HB	VB	4.8913	1.1628	1.1050
T2	S4	HB	VM	9.2391	1.1628	1.6575
T2	S4	HB	VT	6.5217	1.7442	1.6575
T2	S4	HT	VB	1.0870	0.0000	1.1050
T2	S4	HT	VM	7.0652	0.0000	1.1050
T2	S4	HT	VT	2.1739	0.5814	0.5525
T2	S5	HB	VB	1.5385	1.5306	1.2739
T2	S5	HB	VM	1.0256	0.5102	7.0064
T2	S5	HB	VT	0.5128	0.5102	7.0064
T2	S5	HT	VB	0.0000	1.0204	0.0000
T2	S5	HT	VM	1.0256	4.0816	2.5478
T2	S5	HT	VT	0.5128	2.5510	1.9108
T3	S1	HB	VB	3.2051	1.8182	0.0000
T3	S1	HB	VM	5.1282	6.6667	0.6061
T3	S1	HB	VT	4.4872	3.6364	2.4242
T3	S1	HT	VB	0.6410	0.0000	1.2121
T3	S1	HT	VM	4.4872	6.0606	2.4242
T3	S1	HT	VT	1.2821	2.4242	0.6061
T3	S2	HB	VB	2.7027	0.0000	4.2683

APPENDIX 30: CONTINUED

T3	S2	HB	VM	1.6216	2.6490	4.2683
T3	S2	HB	VT	0.0000	2.6490	7.9268
T3	S2	HT	VB	0.0000	0.0000	1.8293
T3	S2	HT	VM	2.7027	1.3245	3.6585
T3	S2	HT	VT	1.6216	0.6623	1.8293
T3	S3	HB	VB	0.5405	0.0000	3.2520
T3	S3	HB	VM	0.5405	0.0000	0.0000
T3	S3	HB	VT	1.0811	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.0000	0.0000
T3	S3	HT	VM	1.0811	1.5789	0.8130
T3	S3	HT	VT	0.5405	1.0526	1.6260
T3	S4	HB	VB	2.2599	0.0000	0.0000
T3	S4	HB	VM	0.5650	1.7544	1.1561
T3	S4	HB	VT	2.2599	1.7544	0.5780
T3	S4	HT	VB	0.5650	0.0000	0.5780
T3	S4	HT	VM	2.8249	1.1696	1.7341
T3	S4	HT	VT	1.1299	0.5848	0.5780
T3	S5	HB	VB	0.5714	0.6173	0.5000
T3	S5	HB	VM	0.5714	0.6173	1.5000
T3	S5	HB	VT	0.5714	1.8519	1.0000
T3	S5	HT	VB	0.0000	0.0000	1.0000
T3	S5	HT	VM	2.2857	0.6173	0.5000
T3	S5	HT	VT	2.8571	1.2346	1.0000

TEDDYBEAR : HARVEST 2;SECONDARY : RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	10.1273 c	22.0264 f	19.1267 e
		T	2.2232 a	12.7452 d	5.5393 b
	2	HB	9.1890 c	22.4767 e	19.4649 d
		T	2.0551 a	11.2384 c	5.0605 b
	3	HB	8.1093 c	16.5864 e	17.2100 e
		T	2.4834 a	12.3547 d	5.1823 b
	4	HB	1.1081 a	4.1066 c	2.6174 abc
		T	1.1050 a	3.9137 bc	1.6662 ab
	5	HB	0.6948 a	0.4749 a	1.2455 a
		T	1.3489 a	2.6093 a	0.7984 a
2	S1	HB	1.5837 a	2.2251 ab	6.0210 c
		T	0.5901 a	4.1536 bc	1.8136 a
	2	HB	0.3788 a	1.8657 a	1.5115 a
		T	0.5682 a	0.9518 a	1.1328 a
	3	HB	1.0378 a	1.9210 a	1.2495 a
		T	0.0000 a	1.7913 a	0.5971 a
	4	HB	2.3864 abc	4.0198 c	3.3078 bc
		T	0.7306 a	2.7234 abc	1.1026 ab
	5	HB	1.4477 a	2.8474 a	2.6765 a
		T	0.3401 a	2.5517 a	1.6582 a
3	S1	HB	1.6744 ab	4.1336 c	3.5159 bc
		T	0.6177 a	4.3240 c	1.4375 ab
	2	HB	2.3237 ab	2.8463 ab	3.5253 b
		T	0.6098 a	2.5619 ab	1.3710 ab
	3	HB	1.2642 a	0.1802 a	0.3604 a
		T	0.0000 a	1.1577 a	1.0731 a
	4	HB	0.7533 a	1.1565 a	1.5308 a
		T	0.3810 a	1.9095 a	0.7643 a
	5	HB	0.5629 a	0.6962 a	1.1411 a
		T	0.3333 a	1.1343 a	1.6972 a

APPENDIX 30: CONTINUED

DATA
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HARVEST 3; SECONDARY : RSA

T1	S1	HB	VB	9.5808	8.2051	10.8108
T1	S1	HB	VM	21.5569	23.5897	21.6216
T1	S1	HB	VT	19.1617	18.4615	18.3784
T1	S1	HT	VB	3.5928	2.5641	3.7838
T1	S1	HT	VM	12.5749	11.7949	10.8108
T1	S1	HT	VT	5.3892	5.1282	5.4054
T1	S2	HB	VB	9.0909	13.2653	9.1429
T1	S2	HB	VM	22.2222	20.4082	20.5714
T1	S2	HB	VT	19.1919	18.3673	20.5714
T1	S2	HT	VB	2.5253	6.1224	3.4286
T1	S2	HT	VM	13.1313	13.2653	10.2857
T1	S2	HT	VT	4.5455	3.5714	5.1429
T1	S3	HB	VB	6.7039	7.2626	12.0603
T1	S3	HB	VM	23.4637	15.6425	20.1005
T1	S3	HB	VT	20.1117	13.9665	19.0955
T1	S3	HT	VB	1.6760	2.2346	5.5276
T1	S3	HT	VM	11.7318	11.1732	14.0704
T1	S3	HT	VT	4.4693	4.4693	4.5226
T1	S4	HB	VB	0.0000	0.0000	4.8649
T1	S4	HB	VM	8.8435	1.0695	5.4054
T1	S4	HB	VT	10.8844	0.0000	5.9459
T1	S4	HT	VB	1.3605	0.5348	2.7027
T1	S4	HT	VM	6.1224	1.6043	5.4054
T1	S4	HT	VT	2.7211	2.6738	2.7027
T1	S5	HB	VB	1.8072	1.1173	0.5917
T1	S5	HB	VM	0.6024	0.0000	8.2840
T1	S5	HB	VT	0.6024	0.5587	7.6923
T1	S5	HT	VB	0.6024	0.5587	0.0000
T1	S5	HT	VM	1.8072	0.5587	5.3254
T1	S5	HT	VT	1.2048	0.5587	1.7751
T2	S1	HB	VB	1.2346	1.2048	2.1739
T2	S1	HB	VM	0.6173	0.6024	0.5435
T2	S1	HB	VT	1.2346	1.2048	1.6304
T2	S1	HT	VB	1.2346	0.6024	0.0000
T2	S1	HT	VM	1.8519	3.6145	3.2609
T2	S1	HT	VT	0.6173	3.0120	0.0000
T2	S2	HB	VB	1.1494	0.7519	1.0256
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.5747	3.0075	2.0513
T2	S2	HT	VB	0.5747	0.7519	0.5128
T2	S2	HT	VM	1.1494	4.5113	2.0513
T2	S2	HT	VT	1.1494	0.7519	1.5385
T2	S3	HB	VB	0.5618	0.6024	0.0000
T2	S3	HB	VM	0.5618	0.6024	0.0000
T2	S3	HB	VT	1.1236	1.8072	3.1250
T2	S3	HT	VB	0.5618	0.0000	0.0000
T2	S3	HT	VM	0.0000	0.6024	2.5000
T2	S3	HT	VT	1.1236	1.8072	1.2500
T2	S4	HB	VB	1.1765	1.7341	0.4608
T2	S4	HB	VM	2.9412	0.5780	0.0000
T2	S4	HB	VT	3.5294	2.8902	1.3825
T2	S4	HT	VB	0.5882	0.5780	1.3825
T2	S4	HT	VM	2.9412	4.0462	0.9217
T2	S4	HT	VT	0.5882	2.3121	0.0000
T2	S5	HB	VB	1.1173	0.5780	0.0000
T2	S5	HB	VM	0.5587	0.0000	1.7143
T2	S5	HB	VT	0.5587	0.5780	0.0000
T2	S5	HT	VB	0.5587	1.1561	1.1429
T2	S5	HT	VM	3.3520	1.7341	1.1429
T2	S5	HT	VT	1.6760	1.1561	0.5714
T3	S1	HB	VB	0.0000	1.1905	2.4242
T3	S1	HB	VM	1.0929	1.1905	1.8182
T3	S1	HB	VT	1.0929	2.3810	1.8182
T3	S1	HT	VB	0.0000	0.5952	0.0000
T3	S1	HT	VM	3.2787	1.1905	1.8182
T3	S1	HT	VT	1.0929	0.5952	2.4242
T3	S2	HB	VB	1.2422	1.0811	2.3256

APPENDIX 30: CONTINUED

T3	S2	HB	VM	0.6211	0.0000	1.7442
T3	S2	HB	VT	3.7267	0.5405	2.3256
T3	S2	HT	VB	0.6211	1.0811	0.0000
T3	S2	HT	VM	0.6211	0.5405	4.6512
T3	S2	HT	VT	0.0000	0.5405	1.1628
T3	S3	HB	VB	1.8405	0.5650	1.0417
T3	S3	HB	VM	2.4540	2.2599	0.0000
T3	S3	HB	VT	0.6135	2.2599	2.0833
T3	S3	HT	VB	0.6135	0.0000	0.5208
T3	S3	HT	VM	1.8405	1.6949	1.5625
T3	S3	HT	VT	0.6135	1.1299	0.5208
T3	S4	HB	VB	1.0929	0.5464	1.7751
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	1.6393	1.0929	1.7751
T3	S4	HT	VB	0.5464	0.5464	0.0000
T3	S4	HT	VM	3.4645	0.5464	0.5917
T3	S4	HT	VT	1.0929	0.5464	1.1834
T3	S5	HB	VB	1.0526	0.5587	0.0000
T3	S5	HB	VM	1.0526	0.0000	0.5464
T3	S5	HB	VT	0.5263	0.5587	0.5464
T3	S5	HT	VB	0.5263	0.0000	0.0000
T3	S5	HT	VM	0.0000	0.5587	0.5464
T3	S5	HT	VT	0.5263	0.0000	0.0000

TEDDYBEAR : HARVEST 3/SECONDARY : RSA

TSHV MEANS
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			B		M		T	
T1	S1	HB	9.5323	b	22.2561	e	18.6672	d
		T	3.3136	a	11.7268	c	5.3076	a
	2	HB	10.4997	b	21.0673	c	19.3769	c
		T	4.0254	a	12.2274	b	4.4199	a
	3	HB	8.6736	b	19.7355	d	17.7246	d
		T	3.1461	a	12.3251	c	4.4871	a
	4	HB	1.6216	a	3.1062	c	5.6101	c
		T	1.5327	a	4.3774	bc	2.6992	ab
	5	HB	1.1721	ab	2.9621	b	2.9511	b
		T	0.3870	a	2.5638	ab	1.1795	ab
2	S1	HB	1.5378	a	0.5877	a	1.3566	a
		T	0.6123	a	2.9091	a	1.2098	a
	2	HB	0.9756	ab	0.0000	a	1.8778	ab
		T	0.6131	ab	2.5707	b	1.1466	ab
	3	HB	0.3881	a	0.3861	a	2.0186	a
		T	0.1873	a	1.0341	a	1.3936	a
	4	HB	1.1238	a	1.1731	a	2.6007	a
		T	0.6496	a	2.6304	a	0.9668	a
	5	HB	0.5651	a	0.7576	a	0.3789	a
		T	0.9525	a	2.0763	a	1.1345	a
3	S1	HB	1.2049	a	1.3672	a	1.7640	a
		T	0.1934	a	2.0958	a	1.3708	a
	2	HB	1.5496	a	0.7804	a	2.1976	a
		T	0.5674	a	1.9376	a	0.5678	a
	3	HB	1.1490	a	1.5713	a	1.6522	a
		T	0.3781	a	1.6993	a	0.7548	a
	4	HB	1.1382	a	0.0000	a	1.5025	a
		T	0.3643	a	2.2009	a	0.9409	a
	5	HB	0.5371	a	0.5330	a	0.5438	a
		T	0.1754	a	0.3604	a	0.1754	a

APPENDIX 30: CONTINUED

DATA

HARVEST 4; SECONDARY : RSA

T1	S1	HB	VB	7.9096	11.0497	11.4583
T1	S1	HB	VM	25.7208	20.9945	21.8750
T1	S1	HB	VT	16.0791	16.7845	17.7083
T1	S1	HT	VB	2.6249	3.6674	4.6875
T1	S1	HT	VM	11.6644	12.1547	15.6250
T1	S1	HT	VT	5.6497	5.5249	4.6875
T1	S2	HB	VB	0.0460	10.3093	9.4675
T1	S2	HB	VM	21.6391	20.0186	20.7101
T1	S2	HB	VT	20.6897	19.5876	15.3846
T1	S2	HT	VB	1.1494	3.6082	2.9586
T1	S2	HT	VM	10.9175	11.3402	11.2426
T1	S2	HT	VT	5.7471	5.6701	4.7337
T1	S3	HB	VB	10.5263	7.0270	11.4130
T1	S3	HB	VM	22.1053	17.2973	22.8261
T1	S3	HB	VT	15.9474	16.7568	17.3913
T1	S3	HT	VB	2.6316	2.1622	3.8043
T1	S3	HT	VM	11.5769	12.9730	12.5000
T1	S3	HT	VT	4.7308	4.8649	4.3478
T1	S4	HB	VB	1.6949	0.0000	2.6882
T1	S4	HB	VM	6.7797	0.5780	6.4516
T1	S4	HB	VT	5.6497	0.0000	0.4516
T1	S4	HT	VB	0.5650	0.0000	0.0000
T1	S4	HT	VM	4.5198	0.0000	5.9140
T1	S4	HT	VT	1.6949	0.0000	2.1505
T1	S5	HB	VB	2.2346	0.0000	1.0870
T1	S5	HB	VM	0.5587	0.5556	1.0870
T1	S5	HB	VT	0.0000	0.5556	0.5435
T1	S5	HT	VB	1.6760	0.0000	0.0000
T1	S5	HT	VM	1.6760	1.1111	4.3478
T1	S5	HT	VT	0.0000	0.5556	1.6304
T2	S1	HB	VB	1.6667	0.6289	0.5495
T2	S1	HB	VM	0.5556	1.8868	0.0000
T2	S1	HB	VT	1.1111	3.1447	0.0000
T2	S1	HT	VB	1.1111	0.6289	0.5495
T2	S1	HT	VM	1.1111	2.5157	1.0989
T2	S1	HT	VT	0.5556	1.2579	1.6484
T2	S2	HB	VB	2.1759	0.9756	2.2472
T2	S2	HB	VM	0.5455	1.9512	1.1236
T2	S2	HB	VT	1.0870	2.4390	0.5618
T2	S2	HT	VB	1.0870	0.0000	0.0000
T2	S2	HT	VM	1.6304	0.9756	2.8090
T2	S2	HT	VT	1.6304	3.4146	1.6854
T2	S3	HB	VB	0.5882	0.4762	0.0000
T2	S3	HB	VM	1.1765	0.9524	0.0000
T2	S3	HB	VT	1.1765	1.4286	0.0000
T2	S3	HT	VB	1.7647	0.0000	0.5000
T2	S3	HT	VM	2.9412	1.4286	0.5000
T2	S3	HT	VT	2.3529	0.9524	1.0000
T2	S4	HB	VB	1.5957	0.5319	0.5556
T2	S4	HB	VM	0.5319	0.0000	1.6667
T2	S4	HB	VT	0.5319	2.1277	2.2222
T2	S4	HT	VB	0.5319	0.0000	0.0000
T2	S4	HT	VM	2.1277	0.0000	2.7778
T2	S4	HT	VT	1.5957	2.1277	0.0000
T2	S5	HB	VB	0.5682	1.1765	0.0000
T2	S5	HB	VM	0.5682	1.7647	1.1429
T2	S5	HB	VT	2.2727	0.0000	1.7143
T2	S5	HT	VB	0.0000	0.0000	0.5714
T2	S5	HT	VM	0.0000	2.9412	1.1429
T2	S5	HT	VT	0.5682	1.7647	2.2857
T3	S1	HB	VB	0.6211	5.2023	1.0309
T3	S1	HB	VM	1.8634	1.1561	1.5464
T3	S1	HB	VT	4.3478	4.0462	0.0000
T3	S1	HT	VB	0.0000	1.1561	0.0000
T3	S1	HT	VM	2.4845	6.3584	1.0309
T3	S1	HT	VT	2.4845	2.3121	1.0309
T3	S2	HB	VB	1.2422	1.5707	0.5525

APPENDIX 30: CONTINUED

T3	S2	HB	VM	1.2422	1.0471	1.1050
T3	S2	HB	VT	0.6211	1.0471	1.6575
T3	S2	HT	VB	0.0000	0.0000	0.5525
T3	S2	HT	VM	3.1056	2.6178	2.7624
T3	S2	HT	VT	1.2422	0.5236	0.5525
T3	S3	HB	VB	0.5291	0.0000	1.6949
T3	S3	HB	VM	1.0582	2.1622	1.1299
T3	S3	HB	VT	2.1164	1.0811	1.1299
T3	S3	HT	VB	1.0582	0.5405	1.1299
T3	S3	HT	VM	1.5873	3.2432	1.1299
T3	S3	HT	VT	0.5291	1.0811	1.6949
T3	S4	HB	VB	1.5306	0.5587	1.8293
T3	S4	HB	VM	2.0408	1.6760	3.0488
T3	S4	HB	VT	1.0204	1.6760	1.2195
T3	S4	HT	VB	1.5306	0.5587	0.0000
T3	S4	HT	VM	2.0408	1.1173	0.6098
T3	S4	HT	VT	0.5102	1.1173	1.2195
T3	S5	HB	VB	1.1050	0.6098	3.7234
T3	S5	HB	VM	0.0000	1.2195	1.5957
T3	S5	HB	VT	0.5525	0.6098	1.0638
T3	S5	HT	VB	0.0000	0.6098	1.5957
T3	S5	HT	VM	3.3149	1.2195	0.5319
T3	S5	HT	VT	2.2099	1.8293	0.5319

TEDDYBEAR : HARVEST 4;SECONDARY : RSA

TSHV MEANS
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			B	M	T
T1	S1	HB	10.1392 b	22.1994 e	16.1907 d
		T	3.7933 a	13.2147 c	5.2874 a
	2	HB	9.2742 c	21.0539 f	16.5540 e
		T	2.5721 a	11.1674 d	5.3837 b
	3	HB	9.6555 c	20.7429 f	17.6965 e
		T	2.6650 a	12.3506 d	4.6498 b
	4	HB	1.4610 a	4.6031 b	4.0338 b
		T	0.1883 a	3.4779 b	1.2818 a
	5	HB	1.1072 ab	0.7337 ab	0.3663 ab
		T	0.5587 a	2.3783 b	0.7287 ab
2	S1	HB	0.9483 a	0.8141 a	1.4186 a
		T	0.7632 a	1.5752 a	1.1539 a
	2	HB	1.7989 a	1.2061 a	1.3626 a
		T	0.3623 a	1.8050 a	2.2435 a
	3	HB	0.3548 a	0.7096 a	0.8683 a
		T	0.7549 a	1.6232 a	1.4351 a
	4	HB	0.6944 a	0.7329 a	1.6273 a
		T	0.1773 a	1.6351 a	1.2411 a
	5	HB	0.5816 a	1.1566 a	1.3290 a
		T	0.1905 a	1.3613 a	1.5395 a
3	S1	HB	2.2848 ab	1.5219 ab	2.7980 b
		T	0.3854 a	3.2913 b	1.9425 ab
	2	HB	1.1216 ab	1.1314 ab	1.1066 ab
		T	0.1842 a	2.8266 b	0.7728 a
	3	HB	0.7413 a	1.4561 a	1.4425 a
		T	0.9096 a	1.9868 a	1.1017 a
	4	HB	1.3062 a	2.2532 a	1.3053 a
		T	0.6964 a	1.2560 a	0.9490 a
	5	HB	1.8127 a	0.9364 a	0.7420 a
		T	0.7352 a	1.6868 a	1.5237 a

APPENDIX 30: CONTINUED

DATA
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HARVEST 5; SECONDARY : RSA

T1	S1	HB	VB	13.8889	8.4270	11.9816
T1	S1	HB	VM	19.4444	20.2247	22.1198
T1	S1	HB	VT	18.5185	21.3483	17.5115
T1	S1	HT	VB	5.0926	3.3708	4.6083
T1	S1	HT	VM	13.8889	8.9888	11.0599
T1	S1	HT	VT	5.0926	3.3708	4.1475
T1	S2	HB	VB	11.9792	5.4878	9.9502
T1	S2	HB	VM	19.7917	16.4634	23.8806
T1	S2	HB	VT	18.7500	19.5122	17.9104
T1	S2	HT	VB	5.2083	1.8293	2.4876
T1	S2	HT	VM	17.1875	8.5366	11.9403
T1	S2	HT	VT	0.2500	4.2683	3.9801
T1	S3	HB	VB	10.2703	8.3770	10.5263
T1	S3	HB	VM	15.6757	8.3770	18.4211
T1	S3	HB	VT	12.9730	6.2827	17.8947
T1	S3	HT	VB	3.7838	4.1885	2.6316
T1	S3	HT	VM	13.5135	13.0890	10.0000
T1	S3	HT	VT	5.4054	3.6649	3.6842
T1	S4	HB	VB	5.7143	1.7647	3.3113
T1	S4	HB	VM	6.5714	2.3529	2.6490
T1	S4	HB	VT	2.8571	0.5882	1.3245
T1	S4	HT	VB	2.2857	0.5882	1.9868
T1	S4	HT	VM	8.0000	5.2941	3.3113
T1	S4	HT	VT	4.5714	1.7647	0.0000
T1	S5	HB	VB	0.4673	0.0000	2.1739
T1	S5	HB	VM	0.4673	2.5157	0.0000
T1	S5	HB	VT	0.9346	0.0000	1.6304
T1	S5	HT	VB	0.4673	0.6289	0.0000
T1	S5	HT	VM	1.4019	0.6289	2.1739
T1	S5	HT	VT	1.4019	1.2579	0.0000
T2	S1	HB	VB	0.0000	1.8405	0.5848
T2	S1	HB	VM	0.4878	1.8405	1.7544
T2	S1	HB	VT	1.4634	3.0675	2.9240
T2	S1	HT	VB	0.0000	0.0000	0.5848
T2	S1	HT	VM	0.9756	1.2270	2.9240
T2	S1	HT	VT	0.0000	1.2270	2.9240
T2	S2	HB	VB	0.0000	1.1429	0.0000
T2	S2	HB	VM	0.0000	3.4286	0.0000
T2	S2	HB	VT	0.0000	1.7143	0.6250
T2	S2	HT	VB	0.0000	0.5714	0.0000
T2	S2	HT	VM	2.0513	1.1429	1.8750
T2	S2	HT	VT	0.5128	2.2857	1.8750
T2	S3	HB	VB	0.4975	1.0256	0.5236
T2	S3	HB	VM	0.4975	1.0256	0.0000
T2	S3	HB	VT	0.9950	1.5385	0.5236
T2	S3	HT	VB	0.9950	1.0256	0.5236
T2	S3	HT	VM	1.4925	1.0256	0.0000
T2	S3	HT	VT	0.9950	1.5385	0.0000
T2	S4	HB	VB	1.8519	0.5714	0.0000
T2	S4	HB	VM	1.2346	2.2857	0.6024
T2	S4	HB	VT	3.0864	0.5714	2.4096
T2	S4	HT	VB	0.0000	0.5714	0.6024
T2	S4	HT	VM	0.6173	1.1429	2.4096
T2	S4	HT	VT	0.0000	1.1429	1.2048
T2	S5	HB	VB	0.6211	0.6667	0.5882
T2	S5	HB	VM	3.1056	2.0000	1.1765
T2	S5	HB	VT	1.2422	2.0000	0.0000
T2	S5	HT	VB	0.0000	0.0000	0.5882
T2	S5	HT	VM	1.2422	2.0000	0.5882
T2	S5	HT	VT	3.1056	2.6667	0.0000
T3	S1	HB	VB	1.1364	0.6061	1.2346
T3	S1	HB	VM	1.7045	0.6061	1.2346
T3	S1	HB	VT	1.7045	1.2121	1.2346
T3	S1	HT	VB	0.0000	0.0000	0.0000
T3	S1	HT	VH	5.6818	3.6364	1.2346
T3	S1	HT	VT	1.7045	0.6061	0.0000
T3	S2	HB	VB	0.5618	2.2727	0.0000
T3	S2	HB	VM	0.5618	0.5682	1.7647

APPENDIX 30: CONTINUED

T3	S2	HB	VT	1.6854	1.1364	2.3529
T3	S2	HT	VB	1.1236	0.5682	0.0000
T3	S2	HT	VM	0.5618	5.1136	0.5882
T3	S2	HT	VT	2.2472	0.5682	3.5294
T3	S3	HB	VB	0.0000	0.0000	1.6575
T3	S3	HB	VM	0.0000	1.9355	1.1050
T3	S3	HB	VT	1.1905	1.9355	0.5525
T3	S3	HT	VB	0.0000	0.0000	0.5525
T3	S3	HT	VM	0.5952	3.2258	1.6575
T3	S3	HT	VT	1.7857	1.9355	2.7624
T3	S4	HB	VB	0.0000	1.9355	0.5988
T3	S4	HB	VM	1.3514	6.4516	1.1976
T3	S4	HB	VT	3.3784	3.2258	0.0000
T3	S4	HT	VB	0.6757	0.0000	0.0000
T3	S4	HT	VM	1.3514	3.2258	3.5928
T3	S4	HT	VT	0.0000	1.9355	2.3952
T3	S5	HB	VB	1.5625	1.0989	0.5464
T3	S5	HB	VM	1.0417	0.0000	2.1858
T3	S5	HB	VT	1.0417	0.5495	2.1858
T3	S5	HT	VB	0.5208	0.0000	0.5464
T3	S5	HT	VM	1.0417	4.3956	4.3716
T3	S5	HT	VT	1.5625	1.6484	1.0929

TEDDYBEAR : HARVEST 5;SECONDARY : RSA

TSHV MEANS

			B	M	T
T1	S1	HB	11.4325b	20.5963 c	19.1261c
		T	4.3572a	11.3125 b	4.2036a
	2	HB	9.1391b	20.0452 d	10.7242d
		T	3.1751a	12.5548 c	4.8328a
	3	HB	9.7245b	14.1579 c	12.3835c
		T	3.5346a	12.2008 c	4.2515a
	4	HB	3.5967abc	4.5245 bc	1.5900a
		T	1.6202a	5.5351 c	2.1120ab
	5	HB	0.8804a	0.9943 a	0.8550a
		T	0.3654a	1.4016 a	0.8866a
2	S1	HB	0.8084a	1.3609 a	2.4850a
		T	0.1949a	1.7069 a	1.3837a
	2	HB	0.3810a	1.1429 a	0.7798a
		T	0.1905a	1.6897 a	1.5578a
	3	HB	0.6822a	0.5077 a	1.0190a
		T	0.8431a	0.8394 a	0.8445a
	4	HB	0.8078a	1.3742 a	2.0225a
		T	0.3913a	1.3879 a	0.7826a
	5	HB	0.6253a	2.0940 a	1.0807a
		T	0.1961a	1.2788 a	1.9241a
3	S1	HB	0.9923a	1.1817 ab	1.3837ab
		T	0.0000a	3.5176 b	0.7702a
	2	HB	0.9448a	0.9649 a	1.7249a
		T	0.5639a	2.0879 a	2.1149a
	3	HB	0.5525a	1.0135 a	1.2261a
		T	0.1842a	1.8262 a	2.1612a
	4	HB	0.6448ab	3.0002 b	2.2014ab
		T	0.2252a	2.7233 ab	1.4436ab
	5	HB	1.0693ab	1.0758 b	1.2590ab
		T	0.3558a	3.2696 ab	1.4346ab

APPENDIX 30: CONTINUED

DATA
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HARVEST 6; SECONDARY : RSA

T1	S1	HB	VB	15.6108	6.7432	11.0526
T1	S1	HB	VM	21.6216	16.9399	22.1053
T1	S1	HB	VT	18.3704	13.1148	17.8947
T1	S1	HT	VB	5.9459	3.2787	3.6842
T1	S1	HT	VM	16.2162	12.5683	11.5789
T1	S1	HT	VT	5.9459	3.2787	5.2632
T1	S2	HB	VB	11.5607	9.7297	12.6316
T1	S2	HB	VM	21.9653	22.7027	20.0000
T1	S2	HB	VT	18.4971	19.4595	18.9474
T1	S2	HT	VB	5.4682	2.7027	4.7368
T1	S2	HT	VM	13.2948	11.3514	11.0526
T1	S2	HT	VT	4.0462	2.1622	4.7368
T1	S3	HB	VB	10.2041	9.9010	9.9010
T1	S3	HB	VM	22.4490	20.2970	20.7921
T1	S3	HB	VT	18.3673	17.6216	17.3267
T1	S3	HT	VB	3.0612	3.4653	2.9703
T1	S3	HT	VM	11.2245	14.3564	12.3762
T1	S3	HT	VT	5.1020	3.9604	3.9604
T1	S4	HB	VB	1.6304	3.1746	3.3708
T1	S4	HB	VM	1.0870	0.5291	0.0000
T1	S4	HB	VT	1.6304	1.5873	0.0000
T1	S4	HT	VB	0.5435	1.0582	1.6854
T1	S4	HT	VM	4.6913	8.4656	5.0562
T1	S4	HT	VT	1.6304	2.1164	1.6854
T1	S5	HB	VB	2.5641	0.0000	0.5618
T1	S5	HB	VM	5.7692	1.0363	0.0000
T1	S5	HB	VT	3.8462	2.0725	1.1236
T1	S5	HT	VB	1.9231	1.5544	0.5618
T1	S5	HT	VM	7.0513	4.6632	2.8090
T1	S5	HT	VT	4.4872	0.0000	3.3708
T2	S1	HB	VB	0.5848	0.5952	1.1905
T2	S1	HB	VM	2.3392	1.1905	2.3810
T2	S1	HB	VT	0.4327	4.7619	2.9762
T2	S1	HT	VB	0.0000	0.0000	0.5952
T2	S1	HT	VM	1.1696	0.0000	2.9762
T2	S1	HT	VT	1.7544	0.0000	2.9762
T2	S2	HB	VB	1.6949	0.5682	2.6316
T2	S2	HB	VM	1.6949	1.1364	0.0000
T2	S2	HB	VT	2.6249	2.2727	1.0526
T2	S2	HT	VB	0.5650	0.0000	0.0000
T2	S2	HT	VM	2.2599	1.1364	1.0526
T2	S2	HT	VT	1.6949	0.5682	0.5263
T2	S3	HB	VB	1.0870	0.5988	0.6061
T2	S3	HB	VM	2.1739	1.7964	0.0000
T2	S3	HB	VT	2.1739	2.3952	2.4242
T2	S3	HT	VB	1.0870	0.5988	0.0000
T2	S3	HT	VM	1.6304	0.5988	1.2121
T2	S3	HT	VT	2.1739	1.1976	1.8182
T2	S4	HB	VB	0.0000	1.7857	0.5587
T2	S4	HB	VM	1.9608	0.5952	1.6760
T2	S4	HB	VT	0.6536	1.7857	3.3520
T2	S4	HT	VB	1.3072	0.0000	2.2346
T2	S4	HT	VM	1.9608	4.1667	4.4693
T2	S4	HT	VT	5.2680	1.1905	1.1173
T2	S5	HB	VB	0.4854	1.7045	0.0000
T2	S5	HB	VM	0.9709	2.6409	0.0000
T2	S5	HB	VT	2.4272	1.7045	1.1299
T2	S5	HT	VB	0.4854	0.0000	0.5650
T2	S5	HT	VM	4.8544	2.2727	2.8249
T2	S5	HT	VT	1.4563	1.1364	4.5198
T3	S1	HB	VB	1.6854	1.6072	1.0582
T3	S1	HB	VM	2.8090	1.6072	0.5291
T3	S1	HB	VT	0.5618	0.0000	0.5291
T3	S1	HT	VB	0.0000	0.0000	0.5291
T3	S1	HT	VM	2.2472	4.2169	0.5291
T3	S1	HT	VT	0.5618	0.6024	1.0582
T3	S2	HB	VB	0.0000	1.3423	0.5618
T3	S2	HB	VM	1.1364	0.6711	0.5618

T3	S2	HB	VT	0.0000	2.6846	1.6854
T3	S2	HT	VB	0.0000	0.6711	0.5618
T3	S2	HT	VM	1.1364	2.6846	2.2472
T3	S2	HT	VT	0.0000	1.3423	0.0000
T3	S3	HB	VB	0.5319	0.5236	1.1628
T3	S3	HB	VM	0.5319	1.5707	1.7442
T3	S3	HB	VT	1.0638	1.0471	2.9070
T3	S3	HT	VB	0.5319	0.0000	0.5814
T3	S3	HT	VM	4.2553	2.0942	1.7442
T3	S3	HT	VT	2.6596	0.0000	0.5814
T3	S4	HB	VB	1.5306	1.2121	0.0000
T3	S4	HB	VM	2.0408	1.2121	1.4085
T3	S4	HB	VT	1.5306	5.4545	2.1127
T3	S4	HT	VB	2.0408	0.6061	0.0000
T3	S4	HT	VM	4.0816	5.4545	3.5211
T3	S4	HT	VT	0.0000	1.6152	2.8169
T3	S5	HB	VB	0.5348	0.5128	0.5587
T3	S5	HB	VM	1.0695	0.0000	1.1173
T3	S5	HB	VT	1.6043	1.0256	0.5587
T3	S5	HT	VB	0.5348	0.5128	1.1173
T3	S5	HT	VM	1.6043	2.5641	1.6760
T3	S5	HT	VT	1.6043	2.0513	0.5587

TEDDYBEAR : HARVEST 6;SECONDARY : RSA

TSHV MEANS

			B	M	T
T1	S1	HB	10.2022 b	20.2223 e	16.4626 d
		T	4.3029 a	13.4545 c	4.8293 a
	2	HB	11.3073 b	21.5560 d	16.9680 c
		T	3.6359 a	11.8996 b	3.6484 a
	3	HB	10.0020 b	21.1794 e	17.8386 d
		T	3.1656 a	12.6524 c	4.3409 a
	4	HB	2.7253 b	0.5367 a	1.0726 a
		T	1.0957 a	6.1377 c	1.8107 a
	5	HB	1.0420 a	2.2665 a	2.3474 a
		T	1.3464 a	4.8412 b	2.6193 a
2	S1	HB	0.7902 a	1.9762 a	4.7236 b
		T	0.1984 a	1.3819 a	1.5769 a
	2	HB	1.6316 a	0.9438 a	2.0501 a
		T	0.1883 a	1.4830 a	0.9298 a
	3	HB	0.7639 a	1.3234 a	2.3311 a
		T	0.5619 a	1.1471 a	1.7299 a
	4	HB	0.7815 a	1.4107 a	1.9304 ab
		T	1.1306 a	3.5322 c	1.8566 ab
	5	HB	0.7300 ab	1.2706 ab	1.7539 abc
		T	0.3501 a	3.3173 c	2.3708 bc
3	S1	HB	1.5169 ab	1.7151 ab	0.3636 a
		T	0.1764 a	2.3311 b	0.7408 a
	2	HB	0.6347 a	0.7898 a	1.4567 a
		T	0.4110 a	2.0227 a	0.4474 a
	3	HB	0.7394 a	1.2823 ab	1.6726 ab
		T	0.3711 a	2.6979 b	1.0803 ab
	4	HB	0.9142 a	1.5538 ab	3.0326 bc
		T	0.8823 a	4.3524 c	1.5450 ab
	5	HB	0.5354 a	0.7269 a	1.0629 a
		T	0.7216 a	1.9461 a	1.4047 a

APPENDIX 31: PERCENTAGE DISTRIBUTION OF RUDIMENTARY OVULES "R" IN 6 POSITIONS WITHIN PRIMARY HEADS = %RA

TEDDYBEAR : HARVEST 1; PRIMARY : %RA

DATA
====

T1	S1	HB	VB	1.9324	2.3923	1.9900
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	6.2802	5.7416	6.9652
T1	S1	HT	VM	2.4155	4.3062	4.9751
T1	S1	HT	VT	7.2464	8.6124	8.9552
T1	S2	HB	VB	1.7937	2.4752	2.2026
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	5.3812	5.9406	6.6079
T1	S2	HT	VM	0.8969	3.9604	4.8458
T1	S2	HT	VT	6.9606	8.9109	8.3700
T1	S3	HB	VB	2.9703	1.8349	2.3585
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	4.4554	5.5046	4.7170
T1	S3	HT	VM	5.4455	1.3761	0.4717
T1	S3	HT	VT	6.9109	7.3394	8.4906
T2	S1	HB	VB	3.0457	3.5354	2.5000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	5.5838	5.5556	6.0000
T2	S1	HT	VM	7.6142	8.5859	2.0000
T2	S1	HT	VT	3.8294	9.0909	8.5000
T2	S2	HB	VB	2.4631	2.3585	2.3697
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.4167	6.6038	6.1611
T2	S2	HT	VM	1.4778	2.8302	7.5829
T2	S2	HT	VT	7.3892	8.9623	6.5308
T2	S3	HB	VB	1.6100	2.1930	2.3041
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	4.9774	5.2632	5.5300
T2	S3	HT	VM	1.3575	1.7544	0.9217
T2	S3	HT	VT	8.5973	8.7719	9.2166
T3	S1	HB	VB	2.3810	3.0769	3.2258
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	4.7619	5.6410	5.0691
T3	S1	HT	VM	2.8571	7.1795	4.1475
T3	S1	HT	VT	9.0476	9.2308	6.7558
T3	S2	HB	VB	2.3041	3.2110	2.8986
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.4587	0.0000
T3	S2	HT	VB	4.1475	5.0459	5.7971
T3	S2	HT	VM	3.2258	4.1284	8.6957
T3	S2	HT	VT	6.2949	8.7156	6.6957
T3	S3	HB	VB	2.3474	1.3953	1.8868
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.2254	6.0465	5.1887
T3	S3	HT	VM	4.6948	1.3953	1.8868
T3	S3	HT	VT	6.9202	8.3721	6.4906

APPENDIX 31: CONTINUED

TEDDYBEAR : HARVEST 1; PRIMARY : %RA

TSHV MEANS

			B	M	T
T1	S1	HB	2.1049 b	0.0000 a	0.0000 a
		T	6.3290 d	3.8989 c	6.2713 e
	2	HB	2.1572 b	0.0000 a	0.0000 a
		T	5.9766 c	3.2344 b	6.7498 d
	3	HB	2.3879 b	0.0000 a	0.0000 a
		T	4.8923 c	2.4311 b	8.2470 d
2	S1	HB	3.0270 b	0.0000 a	0.0000 a
		T	5.7131 c	6.0667 c	6.7401 d
	2	HB	2.3971 b	0.0000 a	0.0000 a
		T	6.0612 c	3.9637 b	6.2941 d
	3	HB	2.1024 b	0.0000 a	0.0000 a
		T	5.2568 c	1.3445 ab	6.8619 d
3	S1	HB	2.8946 b	0.0000 a	0.0000 a
		T	5.1574 c	4.7260 c	9.0114 d
	2	HB	2.6046 b	0.0000 a	0.1529 a
		T	4.9968 c	5.3500 c	8.5687 d
	3	HB	1.8765 b	0.0000 a	0.0000 a
		T	5.1535 c	2.6590 b	8.5943 d

APPENDIX 31: CONTINUED

DATA

HARVEST 2; PRIMARY : %RA

T1	S1	HB	VB	2.5126	2.8736	2.7149
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	6.5327	5.7471	5.4299
T1	S1	HT	VM	10.5528	2.8736	2.7149
T1	S1	HT	VT	9.0452	8.0460	8.5973
T1	S2	HB	VB	3.0000	2.7907	3.9024
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	1.0000	0.0000	0.0000
T1	S2	HT	VB	6.0000	6.5116	4.8780
T1	S2	HT	VM	11.0000	3.7209	5.8537
T1	S2	HT	VT	9.0000	8.3721	9.2683
T1	S3	HB	VB	2.0619	1.8265	3.3333
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	6.1856	6.3927	5.2381
T1	S3	HT	VM	2.5773	2.2831	6.1905
T1	S3	HT	VT	9.2784	8.2192	8.5714
T1	S4	HB	VB	1.8433	1.8349	2.7523
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	4.6083	6.8807	5.5046
T1	S4	HT	VM	0.4608	1.8349	5.0459
T1	S4	HT	VT	7.8341	8.7156	9.1743
T1	S5	HB	VB	1.9417	1.9231	1.5464
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	4.8544	4.3269	5.6701
T1	S5	HT	VM	5.3398	0.0000	1.0309
T1	S5	HT	VT	8.7379	7.2115	8.7629
T2	S1	HB	VB	2.9268	1.5625	1.8519
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	6.3415	5.2083	5.5556
T2	S1	HT	VM	5.8537	3.1250	4.1667
T2	S1	HT	VT	9.2683	8.8542	8.3333
T2	S2	HB	VB	2.6846	2.4752	2.6316
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.7692	6.4356	6.3158
T2	S2	HT	VM	3.3654	6.9307	4.7368
T2	S2	HT	VT	9.1346	8.9109	8.9474
T2	S3	HB	VB	2.4155	1.8265	1.4085
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.2802	5.9361	3.7559
T2	S3	HT	VM	3.6647	1.3699	0.9390
T2	S3	HT	VT	8.6957	8.2192	7.9812
T2	S4	HB	VB	2.7907	1.9704	1.3274
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.1163	6.4039	7.0796
T2	S4	HT	VM	4.6512	4.9261	1.3274
T2	S4	HT	VT	8.8372	9.3596	7.9646
T2	S5	HB	VB	1.9139	1.9512	1.4354
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	5.2632	6.8293	5.2632
T2	S5	HT	VM	0.9569	3.4146	0.4785
T2	S5	HT	VT	8.1340	7.6049	7.6555
T3	S1	HB	VB	5.0761	2.4038	3.6458
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	4.5665	5.7692	5.7292
T3	S1	HT	VM	10.1523	5.2885	6.7708
T3	S1	HT	VT	9.6447	8.6538	9.3750

T3	S2	HB	VB	2.8966	2.4631	3.6649
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	5.7971	6.4039	5.2356
T3	S2	HT	VM	6.2802	3.9409	8.3770
T3	S2	HT	VT	8.6957	8.8670	8.3770
T3	S3	HB	VB	1.8433	3.3493	2.2321
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	5.0691	4.7847	5.3571
T3	S3	HT	VM	1.3825	6.2201	0.8929
T3	S3	HT	VT	8.2949	8.6124	8.4821
T3	S4	HB	VB	1.8519	2.3148	1.9048
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	6.4815	6.4815	7.1429
T3	S4	HT	VM	5.5556	3.2407	8.0952
T3	S4	HT	VT	8.3333	8.3333	8.5714
T3	S5	HB	VB	1.8519	1.3393	1.7544
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	5.5556	6.2500	5.7018
T3	S5	HT	VM	0.9259	0.8929	0.8772
T3	S5	HT	VT	8.7963	8.4821	8.3333

TEDDYBEAR : HARVEST 2; PRIMARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	2.7004 b	0.0000 a	0.0000 a
		T	5.9032 c	5.3804 c	8.5628 d
	2	HB	3.2310 b	0.0000 a	0.3333 a
		T	5.7966 c	6.8562 c	8.8801 d
	3	HB	2.4072 b	0.0000 a	0.0000 a
		T	5.9388 c	3.6836 b	8.6897 d
	4	HB	2.1435 b	0.0000 a	0.0000 a
		T	5.6645 c	2.4472 b	8.5747 d
	5	HB	1.8037 b	0.0000 a	0.0000 a
		T	4.9505 c	2.1236 b	8.2374 d
2	S1	HB	2.1137 b	0.0000 a	0.0000 a
		T	5.7018 c	4.3818 c	8.8186 d
	2	HB	2.6638 b	0.0000 a	0.0000 a
		T	6.1736 c	5.0110 c	8.9976 d
	3	HB	1.8835 b	0.0000 a	0.0000 a
		T	5.3240 c	2.0579 b	8.2987 d
	4	HB	2.0295 b	0.0000 a	0.0000 a
		T	6.2000 c	3.6349 b	8.7205 d
	5	HB	1.7668 a	0.0000 a	0.0000 a
		T	5.7852 b	1.6167 a	7.8648 c
3	S1	HB	3.7086 b	0.0000 a	0.0000 a
		T	5.3556 b	7.4039 c	9.2245 d
	2	HB	3.0088 b	0.0000 a	0.0000 a
		T	5.8122 c	6.1993 c	8.6465 d
	3	HB	2.4749 b	0.0000 a	0.0000 a
		T	5.0703 c	2.8318 b	8.4632 d
	4	HB	2.0238 b	0.0000 a	0.0000 a
		T	6.7019 c	5.6305 c	8.4127 d
	5	HB	1.6485 a	0.0000 a	0.0000 a
		T	5.8358 b	0.8987 a	8.5373 c

APPENDIX 31: CONTINUED

DATA
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HARVEST 3; PRIMARY : %RA

T1	S1	HB	VB	3.0457	2.3364	2.8302
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	5.5838	5.1402	5.1887
T1	S1	HT	VM	6.0914	5.1402	6.0189
T1	S1	HT	VT	0.6294	8.6785	9.9057
T1	S2	HB	VB	4.2328	1.3889	2.3585
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	4.7619	6.0185	6.1321
T1	S2	HT	VM	6.9947	4.1667	5.6604
T1	S2	HT	VT	10.0529	8.7963	8.9623
T1	S3	HB	VB	2.2523	1.9417	2.3256
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	6.7568	6.3107	6.0465
T1	S3	HT	VM	6.3063	0.9709	5.5814
T1	S3	HT	VT	9.0090	6.7379	6.8372
T1	S4	HB	VB	2.5000	2.7907	2.4038
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	6.5000	5.5814	3.3654
T1	S4	HT	VM	3.5000	4.6512	2.4038
T1	S4	HT	VT	9.0000	8.3721	6.6538
T1	S5	HB	VB	2.5510	2.5000	1.8779
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	6.1224	6.5000	4.6948
T1	S5	HT	VM	6.1224	4.5000	3.7559
T1	S5	HT	VT	7.6531	8.0000	6.4507
T2	S1	HB	VB	2.1390	2.2936	3.1674
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	6.4171	5.5046	3.6199
T2	S1	HT	VM	3.2006	6.6807	3.6199
T2	S1	HT	VT	0.5501	6.7156	6.5973
T2	S2	HB	VB	2.5000	2.6037	3.2609
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	6.0000	5.6075	5.4348
T2	S2	HT	VM	6.5000	6.5421	4.3478
T2	S2	HT	VT	6.5000	8.6785	7.6087
T2	S3	HB	VB	2.3256	2.2831	3.3654
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.0465	3.6530	5.2885
T2	S3	HT	VM	4.6512	3.6530	6.2500
T2	S3	HT	VT	8.3721	7.7626	6.1731
T2	S4	HB	VB	1.9802	1.6519	3.2710
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.9406	6.0185	4.6729
T2	S4	HT	VM	4.4554	1.3889	4.2056
T2	S4	HT	VT	6.9109	8.3333	6.8785
T2	S5	HB	VB	1.9139	1.7937	1.9608
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.2201	6.2780	6.3725
T2	S5	HT	VM	2.3923	3.1390	2.9412
T2	S5	HT	VT	6.6124	6.0717	5.8235
T3	S1	HB	VB	1.7857	2.6846	3.9326
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	6.2500	6.2500	5.0562
T3	S1	HT	VM	5.3571	5.7692	10.1124
T3	S1	HT	VT	5.9206	9.1346	0.9888

APPENDIX 31: CONTINUED

T3	S2	HB	VB	2.6906	2.3256	2.4876
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	5.7971	6.5116	5.4726
T3	S2	HT	VM	7.2464	4.1860	4.4776
T3	S2	HT	VT	8.6957	6.8372	8.9552
T3	S3	HB	VB	2.3256	2.2831	5.0435
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	6.5116	5.0228	5.6522
T3	S3	HT	VM	2.3256	0.4566	5.6522
T3	S3	HT	VT	8.8372	7.3059	9.1304
T3	S4	HB	VB	0.9756	3.3175	3.9409
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	5.3659	5.2133	4.9261
T3	S4	HT	VM	2.4390	3.7915	8.3744
T3	S4	HT	VT	7.8049	8.5308	6.8670
T3	S5	HB	VB	1.7621	2.9557	2.4038
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.4053	4.9261	5.7692
T3	S5	HT	VM	2.2026	6.6966	4.3269
T3	S5	HT	VT	8.3700	9.3596	8.6538

TEDDYBEAR : HARVEST 3; PRIMARY : %RA

TSHV MEANS

			B	M	T
T1	S1	HB	2.7374 b	0.0000 a	0.0000 a
		T	5.3042 c	6.4108 c	9.1379 d
	2	HB	2.6601 b	0.0000 a	0.0000 a
		T	5.6375 c	6.2739 c	9.2705 d
	3	HB	2.1732 b	0.0000 a	0.0000 a
		T	6.3713 d	4.2862 c	8.8614 e
	4	HB	2.5648 b	0.0000 a	0.0000 a
		T	5.1489 c	3.5163 b	8.6753 d
	5	HB	2.3097 b	0.0000 a	0.0000 a
		T	5.7724 c	4.7928 c	8.0346 d
2	S1	HB	2.5333 b	0.0000 a	0.0000 a
		T	5.1805 c	4.5697 c	8.6230 d
	2	HB	2.8549 b	0.0000 a	0.0000 a
		T	5.6808 c	6.4633 c	8.3291 d
	3	HB	2.6500 b	0.0000 a	0.0000 a
		T	4.9960 c	4.8514 c	8.1026 d
	4	HB	2.3677 b	0.0000 a	0.0000 a
		T	5.5440 c	3.3500 b	8.7076 d
	5	HB	1.8895 b	0.0000 a	0.0000 a
		T	6.2902 c	2.8242 b	8.5026 d
3	S1	HB	2.8676 b	0.0000 a	0.0000 a
		T	5.8521 c	7.0796 c	9.0173 d
	2	HB	2.5706 b	0.0000 a	0.0000 a
		T	5.9271 c	5.3033 c	8.8294 d
	3	HB	2.5507 b	0.0000 a	0.0000 a
		T	5.7289 c	2.8115 b	8.4245 d
	4	HB	2.7447 b	0.0000 a	0.0000 a
		T	5.1684 c	4.8603 c	8.4009 d
	5	HB	2.3739 b	0.0000 a	0.0000 a
		T	5.0335 c	4.4754 c	8.7945 d

APPENDIX 31: CONTINUED

DATA

HARVEST 4; PRIMARY : %RA

T1	S1	HB	VB	1.9324	3.4286	1.9139
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	5.3140	5.7143	6.2201
T1	S1	HT	VM	9.1707	4.0000	4.3062
T1	S1	HT	VT	8.6957	9.1429	8.6124
T1	S2	HB	VB	3.1746	1.6265	2.5907
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	5.2910	6.6493	6.2176
T1	S2	HT	VM	7.4074	7.3059	6.2902
T1	S2	HT	VT	8.9947	9.1324	8.8083
T1	S3	HB	VB	1.6162	3.3654	1.9802
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	6.3636	5.7692	6.9307
T1	S3	HT	VM	7.7273	5.2885	5.9406
T1	S3	HT	VT	8.1818	9.1346	6.9109
T1	S4	HB	VB	2.3565	2.7273	1.8519
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	6.1321	6.3636	4.6296
T1	S4	HT	VM	1.8868	3.1818	3.2407
T1	S4	HT	VT	8.4906	9.0909	8.7963
T1	S5	HB	VB	1.4019	2.4038	1.8349
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	5.6075	3.6462	4.1284
T1	S5	HT	VM	0.9346	2.4038	9.4587
T1	S5	HT	VT	8.4112	8.6538	7.7982
T2	S1	HB	VB	2.5126	2.8037	3.8462
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	8.0302	5.6075	3.8462
T2	S1	HT	VM	5.5276	3.7383	6.2500
T2	S1	HT	VT	9.0452	8.6785	9.1346
T2	S2	HB	VB	2.3041	1.3761	2.3810
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.9908	5.9633	5.7143
T2	S2	HT	VM	7.8341	4.5872	3.8095
T2	S2	HT	VT	6.7558	8.7156	8.5714
T2	S3	HB	VB	2.0101	2.2936	1.9048
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.5276	4.5872	6.1905
T2	S3	HT	VM	3.5176	2.7523	1.4286
T2	S3	HT	VT	8.5427	8.7156	8.0952
T2	S4	HB	VB	2.4272	3.4483	2.7397
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.3398	5.9113	5.4795
T2	S4	HT	VM	1.9417	4.4335	4.1096
T2	S4	HT	VT	7.7670	9.3596	9.1324
T2	S5	HB	VB	2.3923	2.9412	1.3158
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.2201	4.9020	6.1404
T2	S5	HT	VM	4.3062	4.9020	1.3158
T2	S5	HT	VT	8.6124	8.8235	8.7719
T3	S1	HB	VB	2.8037	2.8571	3.4483
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.6075	4.2857	4.9261
T3	S1	HT	VM	4.6729	6.1905	6.8966
T3	S1	HT	VT	9.3458	8.5714	8.8670

T3	S2	HB	VB	3.4146	2.6571	2.3041
T3	S2	HB	VM	0.0000	0.0000	0.4608
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	5.6537	5.2381	6.4516
T3	S2	HT	VM	8.2927	6.0952	2.7650
T3	S2	HT	VT	9.2603	8.5714	9.2166
T3	S3	HB	VB	2.9851	2.4038	2.3585
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	5.9761	5.2885	5.6604
T3	S3	HT	VM	6.9652	2.8846	4.7170
T3	S3	HT	VT	8.9552	8.6538	8.9623
T3	S4	HB	VB	1.3100	1.3889	2.3041
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	5.2402	5.5556	5.9908
T3	S4	HT	VM	2.6201	2.7778	1.3825
T3	S4	HT	VT	7.4236	8.3333	8.7558
T3	S5	HB	VB	1.4354	1.6957	1.4218
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.4739
T3	S5	HT	VB	4.7847	6.1611	5.2133
T3	S5	HT	VM	0.0000	2.3697	1.4218
T3	S5	HT	VT	7.6555	8.5308	8.0569

TEDDYBEAR : HARVEST 4; PRIMARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	2.4249 b	0.0000 a	0.0000 a
		T	5.7495 c	5.8263 c	8.8170 d
	2	HB	2.5306 b	0.0000 a	0.0000 a
		T	6.1193 c	7.6678 d	8.9785 e
	3	HB	2.3879 b	0.0000 a	0.0000 a
		T	6.3545 c	6.3168 c	8.7424 d
	4	HB	2.3125 b	0.0000 a	0.0000 a
		T	5.7064 c	2.7698 b	8.7926 d
	5	HB	1.8802 b	0.0000 a	0.0000 a
		T	4.5274 c	1.2657 ab	8.2877 d
2	S1	HB	3.0542 b	0.0000 a	0.0000 a
		T	5.1613 c	5.1720 c	9.0194 d
	2	HB	2.0204 b	0.0000 a	0.0000 a
		T	5.8895 c	5.4103 c	8.6809 d
	3	HB	2.0695 b	0.0000 a	0.0000 a
		T	5.4351 c	2.5662 b	8.4512 d
	4	HB	2.8717 b	0.0000 a	0.0000 a
		T	5.5769 c	3.4949 b	8.7530 d
	5	HB	2.2164 b	0.0000 a	0.0000 a
		T	5.7541 d	3.5060 c	8.7360 e
3	S1	HB	3.0364 b	0.0000 a	0.0000 a
		T	4.9398 c	5.9200 c	8.9281 d
	2	HB	2.6586 b	0.1536 c	0.0000 a
		T	5.8478 c	6.3843 c	9.0188 d
	3	HB	2.5825 b	0.0000 a	0.0000 a
		T	5.6397 c	4.8536 c	8.8571 d
	4	HB	1.6677 b	0.0000 a	0.0000 a
		T	5.5955 c	2.2601 b	8.1709 d
	5	HB	1.5843 b	0.0000 a	0.1560 a
		T	5.3864 c	1.2638 ab	8.0611 d

APPENDIX 31: CONTINUED

DATA

HARVEST 5; PRIMARY : %RA

T1	S1	HB	VB	5.2558	1.8349	1.8100
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	5.5814	6.4220	5.8824
T1	S1	HT	VM	2.3256	6.7156	4.0724
T1	S1	HT	VT	6.3721	6.2569	7.2398
T1	S2	HB	VB	2.4752	2.3148	1.4019
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	6.4356	5.5556	7.0093
T1	S2	HT	VM	4.4554	3.2407	1.4019
T1	S2	HT	VT	0.9109	8.7963	8.4112
T1	S3	HB	VB	1.8957	2.3585	2.2831
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	4.7393	5.1887	5.9361
T1	S3	HT	VM	0.6351	2.3585	1.3699
T1	S3	HT	VT	0.5308	8.0189	8.6758
T1	S4	HB	VB	2.3923	2.4390	1.4925
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	4.7847	4.6780	6.4677
T1	S4	HT	VM	1.4354	4.3902	3.4826
T1	S4	HT	VT	6.6124	6.7805	7.9602
T1	S5	HB	VB	2.2321	1.4634	1.8957
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	3.5714	6.8293	4.7393
T1	S5	HT	VM	0.4464	4.6780	1.4218
T1	S5	HT	VT	8.4821	8.7805	8.5308
T2	S1	HB	VB	1.9512	2.9126	2.8986
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	6.3415	5.6252	5.7971
T2	S1	HT	VM	5.3659	3.3981	4.3478
T2	S1	HT	VT	0.7805	6.7379	9.1787
T2	S2	HB	VB	1.9139	3.6095	2.6738
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.6906	5.2381	6.4171
T2	S2	HT	VM	1.9139	6.1905	9.6257
T2	S2	HT	VT	9.0909	9.0476	9.0909
T2	S3	HB	VB	2.7650	1.8692	1.3216
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.0691	5.6075	3.9648
T2	S3	HT	VM	2.7650	3.7383	1.3216
T2	S3	HT	VT	0.7558	7.9439	7.9295
T2	S4	HB	VB	1.8957	1.4423	3.4483
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	4.7393	6.7308	3.9409
T2	S4	HT	VM	0.0000	1.9231	6.8966
T2	S4	HT	VT	0.0569	8.6538	8.8670
T2	S5	HB	VB	2.3923	2.3923	2.3474
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	0.2201	4.7847	5.6338
T2	S5	HT	VM	5.2632	2.8708	4.6948
T2	S5	HT	VT	6.6124	6.6124	0.4507
T3	S1	HB	VB	2.3148	3.2432	3.0612
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.5556	5.4054	5.1020
T3	S1	HT	VM	3.2407	4.6649	3.5714
T3	S1	HT	VT	0.7963	9.7297	6.6735
T3	S2	HB	VB	1.8692	2.0408	2.5126

T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	7.0093	4.5918	8.0302
T3	S2	HT	VM	2.6037	3.5714	10.0503
T3	S2	HT	VT	8.4112	6.6735	8.5427
T3	S3	HB	VB	2.2624	2.9412	3.5000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	3.0824	5.3922	6.0000
T3	S3	HT	VM	1.3575	2.9412	7.5000
T3	S3	HT	VT	0.5973	6.6235	9.0000
T3	S4	HB	VB	2.4272	2.0305	1.9512
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	6.7961	5.5836	5.8537
T3	S4	HT	VM	7.7670	2.0305	2.4390
T3	S4	HT	VT	9.2233	6.6294	3.2927
T3	S5	HB	VB	2.6571	1.3761	2.6786
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	6.1905	3.6697	4.0179
T3	S5	HT	VM	6.1905	0.4587	2.6786
T3	S5	HT	VT	9.0476	6.8807	7.5893

TEDDYBEAR : HARVEST 5; PRIMARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	2.3002 b	0.0000 a	0.0000 a
		T	5.9619 c	5.0379 c	7.9563 d
	2	HB	2.0640 b	0.0000 a	0.0000 a
		T	5.3335 c	3.0327 b	6.7061 d
	3	HB	2.1791 b	0.0000 a	0.0000 a
		T	5.2330 c	3.4545 bc	6.4065 d
	4	HB	2.1030 b	0.0000 a	0.0000 a
		T	5.3768 c	3.1027 b	6.4510 d
	5	HB	1.8638 ab	0.0000 a	0.0000 a
		T	5.0467 c	2.2408 b	6.5978 d
2	S1	HB	2.5875 b	0.0000 a	0.0000 a
		T	5.9379 c	4.3706 bc	8.8990 d
	2	HB	2.7991 b	0.0000 a	0.0000 a
		T	6.1179 c	5.9100 c	9.0765 d
	3	HB	1.9852 b	0.0000 a	0.0000 a
		T	4.6805 c	2.6033 b	6.2097 d
	4	HB	2.2621 b	0.0000 a	0.0000 a
		T	5.1370 c	2.9399 b	6.5259 d
	5	HB	2.3774 b	0.0000 a	0.0000 a
		T	5.5462 c	4.2763 c	8.5585 d
3	S1	HB	2.8731 b	0.0000 a	0.0000 a
		T	5.3543 c	3.8923 bc	9.0665 d
	2	HB	2.1408 b	0.0000 a	0.0000 a
		T	5.8771 c	5.4751 c	8.5425 d
	3	HB	2.9012 b	0.0000 a	0.0000 a
		T	5.7582 c	3.9329 bc	8.8069 d
	4	HB	2.1363 b	0.0000 a	0.0000 a
		T	6.0778 d	4.0768 c	8.7151 e
	5	HB	2.3040 b	0.0000 a	0.0000 a
		T	4.6260 c	3.1093 bc	7.8392 d

APPENDIX 31: CONTINUED

DATA
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HARVEST 6; PRIMARY : %RA

T1	S1	HB	VB	2.5773	2.9268	2.3923
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	5.6701	4.6780	5.2632
T1	S1	HT	VM	3.6082	6.3415	1.4354
T1	S1	HT	VT	8.7629	9.2683	8.6124
T1	S2	HB	VB	2.5000	2.5773	1.9704
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	6.1856	5.9113
T1	S2	HT	VM	3.0000	6.1856	4.9261
T1	S2	HT	VT	9.5000	8.7629	8.8670
T1	S3	HB	VB	2.7650	2.2831	2.1930
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	4.6003	6.3927	5.2632
T1	S3	HT	VM	1.3825	5.4795	2.1930
T1	S3	HT	VT	8.7558	8.6756	8.3333
T1	S4	HB	VB	2.3148	3.0000	2.0725
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	6.0105	6.0000	6.7358
T1	S4	HT	VM	2.3148	5.0000	3.1088
T1	S4	HT	VT	8.3333	9.0000	8.8083
T1	S5	HB	VB	3.5533	2.0408	3.0303
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	3.5838	4.7619	6.0606
T1	S5	HT	VM	7.1066	1.3605	7.5758
T1	S5	HT	VT	9.1371	8.6435	9.0909
T2	S1	HB	VB	1.9512	3.5533	2.3474
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	5.3659	5.5838	4.6948
T2	S1	HT	VM	2.4390	4.0609	2.8169
T2	S1	HT	VT	8.2927	9.1371	8.4507
T2	S2	HB	VB	3.9409	2.3256	3.2710
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	4.9261	5.1163	5.6075
T2	S2	HT	VM	5.4187	2.3256	4.2056
T2	S2	HT	VT	9.3596	8.6372	8.8785
T2	S3	HB	VB	1.7699	2.6571	2.2936
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.7522	6.1905	5.0459
T2	S3	HT	VM	1.7699	2.3810	1.8349
T2	S3	HT	VT	8.4071	9.0476	8.7156
T2	S4	HB	VB	2.3256	2.9851	1.4423
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	8.0465	5.9701	6.7308
T2	S4	HT	VM	4.6512	4.9751	1.4423
T2	S4	HT	VT	8.6372	8.9552	8.6538
T2	S5	HB	VB	2.3697	2.3923	2.9557
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	8.6351	5.2632	4.9261
T2	S5	HT	VM	7.1090	2.6708	4.4335
T2	S5	HT	VT	9.0047	9.0909	8.8670
T3	S1	HB	VB	1.6808	2.4510	2.0270
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.6604	5.3922	6.7568
T3	S1	HT	VM	4.2453	5.8824	2.0270
T3	S1	HT	VT	8.4906	8.3333	8.7838

T3	S2	HB	VB	2.4876	2.0406	4.4554
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	6.4677	6.6327	4.9505
T3	S2	HT	VM	4.9751	2.0408	10.8911
T3	S2	HT	VT	5.9552	9.1837	9.4059
T3	S3	HB	VB	2.3148	2.3810	2.3474
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	5.0926	6.1905	6.5728
T3	S3	HT	VM	0.9259	2.6571	1.8779
T3	S3	HT	VT	6.7963	6.5714	8.9202
T3	S4	HB	VB	2.2727	2.0725	2.6906
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	5.9091	5.6995	4.9327
T3	S4	HT	VM	1.3636	4.6632	4.4843
T3	S4	HT	VT	6.1818	6.2902	6.9686
T3	S5	HB	VB	2.8169	2.6571	2.4272
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.6948	5.7143	5.8252
T3	S5	HT	VM	4.6948	3.8095	3.8835
T3	S5	HT	VT	6.4507	6.5714	8.2524

TEDDYBEAR : HARVEST 6; PRIMARY : %RA

TSHV MEANS
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			B		M		T	
T1	S1	HB	2.6322	b	0.0000	a	0.0000	a
		T	5.2704	b	3.7950	c	8.8812	d
	2	HB	2.3493	b	0.0000	a	0.0000	a
		T	6.0323	c	4.7039	c	9.0433	d
	3	HB	2.4137	b	0.0000	a	0.0000	a
		T	5.4214	b	3.0163	c	8.5863	d
	4	HB	2.4625	b	0.0000	a	0.0000	a
		T	9.2514	b	3.4745	c	8.7139	d
	5	HB	2.6748	b	0.0000	a	0.0000	a
		T	5.4688	c	5.3476	c	9.0238	d
2	S1	HB	2.6173	b	0.0000	a	0.0000	a
		T	5.2148	b	3.1056	c	8.6268	d
	2	HB	3.1792	b	0.0000	a	0.0000	a
		T	5.2106	bc	3.9833	c	9.0251	d
	3	HB	2.3069	b	0.0000	a	0.0000	a
		T	5.6629	c	1.9952	b	8.7234	d
	4	HB	2.2510	b	0.0000	a	0.0000	a
		T	6.2491	c	3.6895	b	6.8154	d
	5	HB	2.5726	b	0.0000	a	0.0000	a
		T	5.6081	c	4.8044	c	8.9875	d
3	S1	HB	2.1216	b	0.0000	c	0.0000	a
		T	5.9304	d	4.0516	c	8.5359	e
	2	HB	2.9946	b	0.0000	a	0.0000	a
		T	6.0169	c	5.9690	c	9.1816	d
	3	HB	2.3477	b	0.0000	a	0.0000	a
		T	5.9519	c	1.8870	b	8.7626	d
	4	HB	2.3453	b	0.0000	a	0.0000	a
		T	5.5138	c	3.5037	b	8.4602	d
	5	HB	2.7004	b	0.0000	a	0.0000	a
		T	5.4115	c	4.1293	bc	8.4249	d

APPENDIX 32: PERCENTAGE DISTRIBUTION OF RUDIMENTARY OVULES "R" IN 6 POSITIONS WITHIN SECONDARY HEADS = %RA

TEDDYBEAR : HARVEST 1; SECONDARY : %RA

DATA
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T1	S1	HB	VB	4.8367	2.6549	3.2258
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	4.6367	6.1947	5.3763
T1	S1	HT	VM	11.2903	3.5398	7.5269
T1	S1	HT	VT	10.7527	6.4071	9.6774
T1	S2	HB	VB	5.5354	4.0404	4.9587
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	5.5556	5.0505	4.9587
T1	S2	HT	VM	10.6061	9.0909	10.7438
T1	S2	HT	VT	9.0909	9.0909	9.9174
T1	S3	HB	VB	3.4653	5.0279	4.6632
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	5.9406	4.4693	4.6632
T1	S3	HT	VM	7.9208	10.6145	10.3627
T1	S3	HT	VT	9.4059	9.4972	9.3264
T2	S1	HB	VB	6.3218	6.3694	5.0279
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	4.0230	5.0955	4.4693
T2	S1	HT	VM	10.3448	11.4650	6.7039
T2	S1	HT	VT	10.3448	8.9172	5.5866
T2	S2	HB	VB	4.0936	3.5176	4.9451
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.2632	5.5276	4.3956
T2	S2	HT	VM	8.1871	5.0251	10.9890
T2	S2	HT	VT	9.3567	10.0503	9.8901
T2	S3	HB	VB	4.5918	3.4146	4.0201
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	6.6327	5.8537	5.5276
T2	S3	HT	VM	9.1837	7.3171	10.0503
T2	S3	HT	VT	8.1633	6.7805	8.5427
T3	S1	HB	VB	8.4211	2.5253	6.8783
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.1579	5.5556	4.2328
T3	S1	HT	VM	10.0000	2.0202	10.0529
T3	S1	HT	VT	9.4737	8.5859	10.5820
T3	S2	HB	VB	2.3810	3.9801	7.5000
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	6.6667	4.9751	2.5000
T3	S2	HT	VM	5.7143	11.4428	12.5000
T3	S2	HT	VT	9.0476	8.9552	9.3750
T3	S3	HB	VB	4.9160	3.1414	3.6082
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.9160	5.7592	5.6701
T3	S3	HT	VM	9.6361	10.9948	9.2784
T3	S3	HT	VT	9.2896	8.9005	9.2784

APPENDIX 32: CONTINUED

TEDDYBEAR : HARVEST 1; SECONDARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	3.5731 b	0.0000 a	0.0000 a
		T	5.4699 bc	7.4523 cd	9.6124 d
	2	HB	4.1781 b	0.0000 a	0.0000 a
		T	5.1882 b	10.1469 c	9.3664 c
	3	HB	4.3855 b	0.0000 a	0.0000 a
		T	5.0244 b	9.6327 c	9.4099 c
2	S1	HB	5.9064 b	0.0000 a	0.0000 a
		T	4.5293 b	9.5046 c	8.2829 c
	2	HB	4.1354 b	0.0000 a	0.0000 a
		T	5.0621 b	8.0671 c	9.7657 c
	3	HB	4.0089 b	0.0000 a	0.0000 a
		T	6.0046 b	8.8503 c	8.4955 c
3	S1	HB	5.9415 bc	0.0000 a	0.0000 a
		T	4.3154 b	7.3577 cd	9.5472 d
	2	HB	4.6204 b	0.0000 a	0.0000 a
		T	4.7139 b	9.8857 c	9.1259 c
	3	HB	3.8892 b	0.0000 a	0.0000 a
		T	5.4491 b	10.0364 c	9.1562 c

APPENDIX 32: CONTINUED

DATA

HARVEST 2; SECONDARY : %RA

T1	S1	HB	VB	4.1176	5.0000	4.6392
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	5.2941	5.0000	4.6392
T1	S1	HT	VM	7.0588	9.4444	11.3402
T1	S1	HT	VT	8.6235	10.0000	9.2784
T1	S2	HB	VB	5.9703	4.6512	5.0562
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	3.6043	4.0698	5.0562
T1	S2	HT	VM	11.4130	11.6279	10.6742
T1	S2	HT	VT	9.7826	9.3023	10.1124
T1	S3	HB	VB	5.9172	4.4776	6.7797
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	3.5503	4.9751	3.3898
T1	S3	HT	VM	11.6343	7.9602	11.2994
T1	S3	HT	VT	9.4675	9.4527	10.1695
T1	S4	HB	VB	5.5536	6.9767	6.0109
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	4.4444	3.4884	3.8251
T1	S4	HT	VM	11.1111	11.0465	10.3825
T1	S4	HT	VT	10.0000	10.4651	9.8361
T1	S5	HB	VB	3.6364	4.6392	4.7904
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	3.1818	5.1546	4.1916
T1	S5	HT	VM	1.3636	10.6247	11.9760
T1	S5	HT	VT	8.6364	9.7938	6.9820
T2	S1	HB	VB	7.4074	3.6145	7.4713
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	3.0864	5.4217	2.8736
T2	S1	HT	VM	11.1111	9.6386	12.0690
T2	S1	HT	VT	11.7264	9.0361	10.9195
T2	S2	HB	VB	5.1136	6.5476	4.4444
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	4.5455	3.5714	5.5556
T2	S2	HT	VM	11.3636	11.9048	8.8889
T2	S2	HT	VT	9.6591	10.1190	10.0000
T2	S3	HB	VB	5.6649	7.5862	5.7803
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.2356	3.4483	4.6243
T2	S3	HT	VM	7.8534	11.7241	10.9827
T2	S3	HT	VT	8.3770	11.0345	10.4046
T2	S4	HB	VB	5.9763	5.8140	6.0773
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	3.8043	4.0698	4.4199
T2	S4	HT	VM	11.9565	11.0465	6.8398
T2	S4	HT	VT	9.7826	10.4651	10.4972
T2	S5	HB	VB	5.0769	4.0816	6.3694
T2	S5	HB	VM	0.0000	0.0000	0.6369
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.1538	5.1020	2.5478
T2	S5	HT	VM	3.5897	7.1429	9.5541
T2	S5	HT	VT	9.2308	9.1837	9.5541
T3	S1	HB	VB	7.6923	5.4545	4.8485
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	2.5641	4.2424	4.2424
T3	S1	HT	VM	12.1795	9.6970	9.0909
T3	S1	HT	VT	10.2564	9.6970	9.0909

T3	S2	HB	VB	5.4054	6.6093	4.8780
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	4.3243	1.9868	4.8780
T3	S2	HT	VM	10.2703	12.5828	10.9756
T3	S2	HT	VT	9.7297	10.5960	9.7561
T3	S3	HB	VB	4.3243	5.2632	5.6911
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	5.4054	4.2105	4.0650
T3	S3	HT	VM	0.6406	10.0000	11.3821
T3	S3	HT	VT	9.7297	9.4737	9.7561
T3	S4	HB	VB	5.6497	5.2632	6.3584
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	3.9548	4.6784	2.8902
T3	S4	HT	VM	11.8644	11.1111	9.8266
T3	S4	HT	VT	9.6045	8.7719	9.8266
T3	S5	HB	VB	0.2857	7.4074	3.0000
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.0000	3.0864	6.0000
T3	S5	HT	VM	10.8571	12.3457	9.5000
T3	S5	HT	VT	10.2857	10.4938	9.0000

TEDDYBEAR : HARVEST 2/SECONDARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	4.5856b	0.0000 a	0.0000a
		T	4.9778b	9.2812 c	9.3673c
	2	HB	5.2285 b	0.0000 a	0.0000 a
		T	4.3101 b	11.2304 c	9.7324 c
	3	HB	5.7248 c	0.0000 a	0.0000 a
		T	3.9718 bd	10.3647 d	9.6966 d
	4	HB	6.1811 c	0.0000 a	0.0000 a
		T	3.9193 b	10.8467 d	10.1004 d
	5	HB	4.5553 b	0.0000 a	0.0000 a
		T	4.1760 b	6.0548 c	9.1374 c
2	S1	HB	6.1644 c	0.0000 a	0.0000 a
		T	3.7939 b	10.9395 d	10.5614 d
	2	HB	5.3686 b	0.0000 a	0.0000 a
		T	4.5575 b	10.7191 c	9.9260 c
	3	HB	5.6772 b	0.0000 a	0.0000 a
		T	4.4361 b	10.1867 c	9.9387 c
	4	HB	5.9555 b	0.0000 a	0.0000 a
		T	4.0930 b	10.6143 c	10.2483 c
	5	HB	4.5093 b	0.2123 a	0.0000 a
		T	4.6012 b	6.7622 c	9.3229 d
3	S1	HB	5.9984 c	0.0000 a	0.0000 a
		T	3.6830 b	10.3225 d	9.6814 d
	2	HB	6.2976 c	0.0000 a	0.0000 a
		T	3.7297 b	11.2762 d	10.0273 d
	3	HB	5.0928 b	0.0000 a	0.0000 a
		T	4.5603 b	10.0163 c	9.6532 c
	4	HB	5.7571 c	0.0000 a	0.0000 a
		T	3.6411 b	10.9340 d	9.4010 d
	5	HB	5.5644 b	0.0000 a	0.0000 a
		T	4.3621 b	10.9009 c	9.9265 c

APPENDIX 32: CONTINUED

DATA
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HARVEST 3; SECONDARY : %RA

T1	S1	HB	VB	4.7904	5.1282	3.7838
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	4.7904	4.1026	5.4054
T1	S1	HT	VM	8.9820	11.7949	10.8108
T1	S1	HT	VT	9.5808	9.2308	9.1892
T1	S2	HB	VB	5.5556	2.5510	5.7143
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.5051	0.0000	0.0000
T1	S2	HT	VB	4.5455	6.1224	4.5714
T1	S2	HT	VM	9.0909	7.1429	10.2857
T1	S2	HT	VT	9.5960	9.1837	10.2857
T1	S3	HB	VB	8.7039	5.5866	5.5176
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	3.3520	3.9106	5.5276
T1	S3	HT	VM	11.7318	11.7318	6.0302
T1	S3	HT	VT	10.0559	9.4972	9.5477
T1	S4	HB	VB	8.1633	5.3476	3.7838
T1	S4	HB	VM	1.3605	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	2.0408	4.2781	5.4054
T1	S4	HT	VM	8.8435	11.2299	10.8108
T1	S4	HT	VT	10.6844	9.6257	9.1892
T1	S5	HB	VB	3.6145	3.9106	6.5089
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	5.4217	5.5866	3.5503
T1	S5	HT	VM	11.4458	10.6145	11.8343
T1	S5	HT	VT	9.0361	9.4972	10.0592
T2	S1	HB	VB	3.7037	6.0241	5.4348
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	4.3210	3.6145	4.3478
T2	S1	HT	VM	5.5556	7.8313	8.6957
T2	S1	HT	VT	8.6420	9.6386	9.7826
T2	S2	HB	VB	3.1724	4.5113	4.1026
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	4.0230	5.2632	5.1282
T2	S2	HT	VM	8.8906	6.7669	9.7436
T2	S2	HT	VT	8.6207	9.7744	9.2308
T2	S3	HB	VB	5.0562	7.8313	6.2500
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.0562	2.4096	3.7500
T2	S3	HT	VM	10.6742	12.6506	10.6250
T2	S3	HT	VT	10.1124	10.2410	10.0000
T2	S4	HB	VB	3.5294	6.3584	4.1475
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	5.2941	3.4682	5.5300
T2	S4	HT	VM	8.2353	11.5607	10.1382
T2	S4	HT	VT	8.8235	9.8266	9.6774
T2	S5	HB	VB	4.4693	6.9364	8.2857
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	5.5866	3.4682	3.4286
T2	S5	HT	VM	8.3799	11.5607	12.0000
T2	S5	HT	VT	10.0559	10.4046	9.7143
T3	S1	HB	VB	3.8251	4.7619	5.4545
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.4645	5.3571	4.2424
T3	S1	HT	VM	7.1038	12.5000	11.5152
T3	S1	HT	VT	7.1038	10.1190	9.6970

APPENDIX 32: CONTINUED

T3	S2	HB	VB	6.6323	4.6649	5.2326
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	3.1056	4.3243	4.6512
T3	S2	HT	VM	11.6012	12.4324	11.6279
T3	S2	HT	VT	9.9379	9.1892	9.8837
T3	S3	HB	VB	5.5215	5.6497	4.1667
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.2945	4.5198	3.2083
T3	S3	HT	VM	11.0429	10.7345	7.2917
T3	S3	HT	VT	9.6100	10.1695	9.3750
T3	S4	HB	VB	4.3716	7.1036	7.1006
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	5.4645	3.2787	3.5503
T3	S4	HT	VM	6.0109	10.3825	11.8343
T3	S4	HT	VT	9.8361	10.3825	10.6509
T3	S5	HB	VB	3.6842	5.5866	6.5574
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.2105	4.4693	3.2787
T3	S5	HT	VM	5.2632	11.1732	12.0219
T3	S5	HT	VT	6.9474	10.0559	9.8361

TEDDYBEAR : HARVEST 3/SECONDARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	4.5675b	0.0000 a	0.0000a
		T	4.7661b	10.5292 c	9.3336c
	2	HB	4.6070b	0.0000 a	0.1684a
		T	5.0798b	6.6398 c	9.6864c
	3	HB	5.2694b	0.0000 a	0.0000a
		T	4.2634b	9.8313 c	9.7003c
	4	HB	5.7649c	0.4535 a	0.0000a
		T	3.9081b	10.2948 d	9.8997d
	5	HB	4.6760b	0.0000 a	0.0000a
		T	4.6529b	11.2962 c	9.5308c
2	S1	HB	5.0542b	0.0000 a	0.0000a
		T	4.0944b	7.3608 c	9.3544d
	2	HB	4.5954b	0.0000 a	0.0000a
		T	4.8048b	7.8024 c	9.2086c
	3	HB	6.3792c	0.0000 a	0.0000a
		T	3.7386b	11.3106 d	10.1178d
	4	HB	4.6784b	0.0000 a	0.0000a
		T	4.7641b	9.9761 c	9.4425c
	5	HB	5.8971b	0.0000 a	0.0000a
		T	4.1611b	10.6469 c	10.0583c
3	S1	HB	4.6805b	0.0000 a	0.0000a
		T	5.0213b	10.3730 c	6.9733c
	2	HB	5.6432b	0.0000 a	0.0000a
		T	4.0270b	11.9539 d	9.6703c
	3	HB	5.1126b	0.0000 a	0.0000a
		T	4.6742b	9.6897 c	9.7868c
	4	HB	6.1920c	0.0000 a	0.0000a
		T	4.0976b	9.4093 d	10.2698d
	5	HB	5.2761b	0.0000 a	0.0000a
		T	3.9862b	9.4861 c	9.6131c

APPENDIX 32: CONTINUED

DATA
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HARVEST 4: SECONDARY : %RA

T1	S1	HB	VB	5.6497	3.6674	3.1250
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	3.3898	5.5249	5.7292
T1	S1	HT	VM	11.6644	8.6398	8.2500
T1	S1	HT	VT	9.0395	9.3923	8.8542
T1	S2	HB	VB	8.3218	4.0392	4.7337
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	4.0230	5.1546	4.7337
T1	S2	HT	VM	10.9195	9.2784	8.8757
T1	S2	HT	VT	10.3448	9.7938	9.4675
T1	S3	HB	VB	4.2105	5.4054	3.2609
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	5.2632	4.3243	5.4348
T1	S3	HT	VM	10.5263	9.7297	10.3261
T1	S3	HT	VT	9.4737	9.7297	8.6957
T1	S4	HB	VB	5.6497	6.3584	5.3763
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	5.9548	3.4682	4.3011
T1	S4	HT	VM	11.2994	12.1387	8.6022
T1	S4	HT	VT	9.6045	9.8266	9.6774
T1	S5	HB	VB	3.3520	6.6667	4.8913
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	5.5866	3.3333	4.8913
T1	S5	HT	VM	8.3799	11.1111	7.6087
T1	S5	HT	VT	5.9305	10.0000	9.7826
T2	S1	HB	VB	4.4444	6.1761	7.6923
T2	S1	HB	VM	0.0000	0.6289	0.0000
T2	S1	HB	VT	0.0000	1.2579	0.0000
T2	S1	HT	VB	5.0000	3.1447	2.7473
T2	S1	HT	VM	11.1111	11.3208	12.0879
T2	S1	HT	VT	9.4444	10.0629	10.4396
T2	S2	HB	VB	4.3478	2.4390	4.4944
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	4.8913	5.8537	5.0562
T2	S2	HT	VM	10.8696	8.3415	8.4270
T2	S2	HT	VT	9.7826	6.2927	9.5506
T2	S3	HB	VB	5.2941	3.3333	3.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000

T2	S3	HT	VB	4.1176	5.7143	5.5000
T2	S3	HT	VM	8.8235	5.7143	5.0000
T2	S3	HT	VT	9.4118	9.0476	9.0000
T2	S4	HB	VB	4.7872	5.6511	7.2222
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	4.7872	4.7872	3.3333
T2	S4	HT	VM	8.5106	8.5106	8.3333
T2	S4	HT	VT	9.5745	10.6383	10.5556
T2	S5	HB	VB	5.6818	5.6824	8.2857
T2	S5	HB	VM	0.0000	0.5882	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	4.5455	4.1176	4.0000
T2	S5	HT	VM	11.3636	9.4118	10.8571
T2	S5	HT	VT	10.2273	10.0000	10.2857
T3	S1	HB	VB	0.0745	6.3584	4.1237
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.1036	3.4682	5.1546
T3	S1	HT	VM	11.1801	12.1387	7.2165
T3	S1	HT	VT	11.1801	9.8266	9.2784

APPENDIX 32: CONTINUED

T3	S2	HB	VB	0.0745	3.6649	0.0773
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	1.6634	5.7592	3.8674
T3	S2	HT	VM	13.0435	5.7592	9.3923
T3	S2	HT	VT	9.9379	9.4241	9.9448
T3	S3	HB	VB	3.2910	5.9459	6.2147
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.2328	3.7836	3.3898
T3	S3	HT	VM	10.0529	10.6106	11.8644
T3	S3	HT	VT	9.5238	9.7297	9.6045
T3	S4	HB	VB	4.0816	6.1453	7.3171
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	4.5918	3.9106	2.4390
T3	S4	HT	VM	9.6939	10.0559	12.8049
T3	S4	HT	VT	9.1837	10.0559	9.7561
T3	S5	HB	VB	4.9724	4.6780	5.3191
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.9724	4.6780	4.7872
T3	S5	HT	VM	6.0773	9.1463	11.1702
T3	S5	HT	VT	9.9448	9.7561	10.1064

TEDDYBEAR : HARVEST 4;SECONDARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	4.2140b	0.0000 a	0.0000a
		T	4.8813b	8.9847 c	9.0953c
	2	HB	5.2316b	0.0000 a	0.0000a
		T	4.6371b	9.6912 c	9.8667c
	3	HB	4.2923b	0.0000 a	0.0000a
		T	5.0074b	10.1940 c	9.2997c
	4	HB	5.7948c	0.0000 a	0.0000a
		T	3.9080b	10.6801 d	9.7028d
	5	HB	4.9700b	0.0000 a	0.0000a
		T	4.6037b	9.0352 c	9.5737c
2	S1	HB	6.7710c	0.2096 a	0.4193a
		T	3.6306b	11.5066 d	9.9823d
	2	HB	3.7604 b	0.0000 a	0.0000 a
		T	5.2670 b	8.5460 d	9.2086 d
	3	HB	3.6738 b	0.0000 a	0.0000 a
		T	5.1106 bc	8.5126 c	9.1531 d
	4	HB	5.9535 b	0.0000 a	0.0000 a
		T	4.3026 b	8.4515 c	10.2561 d
	5	HB	5.9500 c	0.1961 a	0.0000 a
		T	4.2210 b	10.5442 c	10.1710 c
3	S1	HB	6.1855 c	0.0000 a	0.0000 a
		T	3.9095 b	10.1764 d	10.0950 d
	2	HB	5.9389c	0.0000 a	0.0000a
		T	3.8300b	9.3963 d	9.7689d
	3	HB	5.8172c	0.0000 a	0.0000a
		T	3.8021b	10.9094 d	9.6194d
	4	HB	5.6480c	0.0000 a	0.0000a
		T	3.6472b	10.8515 d	9.6652d
	5	HB	5.0565b	0.0000 a	0.0000a
		T	4.8792b	8.7960 c	9.9357c

APPENDIX 32: CONTINUED

DATA HARVEST 5; SECONDARY : %RA

T1	S1	HB	VB	2.3148	6.7416	2.7650
T1	S1	HB	VM	0.0000	0.5618	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	6.9444	3.9326	5.9908
T1	S1	HT	VM	5.5556	10.6742	11.0599
T1	S1	HT	VT	9.2593	10.6742	6.7558
T1	S2	HB	VB	5.6458	8.5366	3.9801
T1	S2	HB	VM	0.0000	0.6098	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	5.7292	2.4390	4.9751
T1	S2	HT	VM	2.6042	10.9756	11.9403
T1	S2	HT	VT	6.8542	10.9756	8.9552
T1	S3	HB	VB	3.7838	3.6649	4.7368
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	5.4054	4.7120	5.2632
T1	S3	HT	VM	6.1061	7.3298	11.0526
T1	S3	HT	VT	9.1892	6.9005	10.0000
T1	S4	HB	VB	3.4266	4.1176	5.9603
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	5.7143	4.7059	3.9735
T1	S4	HT	VM	10.6571	10.0000	11.2583
T1	S4	HT	VT	9.1429	8.8235	9.9338
T1	S5	HB	VB	3.2710	6.2893	4.8913
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	5.6075	3.7736	4.8913
T1	S5	HT	VM	6.5421	11.9497	6.1522
T1	S5	HT	VT	6.8765	10.0629	9.7826
T2	S1	HB	VB	3.4146	7.3620	7.0175
T2	S1	HB	VM	0.0000	0.6135	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	5.6537	3.0675	3.5088
T2	S1	HT	VM	6.2927	10.4294	6.7719
T2	S1	HT	VT	9.2683	10.4294	10.5263
T2	S2	HB	VB	3.5897	6.2857	7.5000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	5.6410	3.4286	3.1250
T2	S2	HT	VM	7.1795	11.4286	11.8750
T2	S2	HT	VT	9.2308	9.7143	10.6250
T2	S3	HB	VB	3.4826	4.1026	4.1885
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	5.9701	5.1282	5.2356
T2	S3	HT	VM	6.9652	7.1795	6.2[illegible]27
T2	S3	HT	VT	9.4527	9.7436	9.4241
T2	S4	HB	VB	6.7901	6.6571	7.2289
T2	S4	HB	VM	0.0000	0.0000	0.6024
T2	S4	HB	VT	0.0000	0.0000	0.0000
T2	S4	HT	VB	3.7037	2.8571	3.0120
T2	S4	HT	VM	11.7264	12.5714	11.4458
T2	S4	HT	VT	10.4938	9.7143	10.2410
T2	S5	HB	VB	6.0745	7.3333	5.2941
T2	S5	HB	VM	0.0000	0.0000	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	2.4845	2.6667	4.7059
T2	S5	HT	VM	11.8012	12.0000	11.1765
T2	S5	HT	VT	10.5590	10.0000	10.0000
T3	S1	HB	VB	5.6818	5.4545	7.4074
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	3.4091	4.2424	3.0864
T3	S1	HT	VM	7.3864	10.3030	12.3457
T3	S1	HT	VT	7.9545	9.6970	10.4938

APPENDIX 32: CONTINUED

T3	S2	HB	VB	6.7416	3.4091	5.8824
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	3.3708	5.1136	4.1176
T3	S2	HT	VM	11.2360	5.6818	11.1765
T3	S2	HT	VT	10.1124	6.5227	10.0000
T3	S3	HB	VB	7.7381	9.6774	6.6298
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	2.9762	6.6452	3.3149
T3	S3	HT	VM	11.9048	13.5484	12.7072
T3	S3	HT	VT	10.7143	10.3226	9.3923
T3	S4	HB	VB	6.7568	5.8065	5.3892
T3	S4	HB	VM	0.0000	0.0000	0.0000
T3	S4	HB	VT	0.0000	0.0000	0.0000
T3	S4	HT	VB	3.3784	4.5161	4.1916
T3	S4	HT	VM	12.1622	10.9677	11.3772
T3	S4	HT	VT	10.1351	10.3226	9.5808
T3	S5	HB	VB	5.1250	2.7473	5.4645
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	5.7292	5.4945	4.3716
T3	S5	HT	VM	8.6542	2.7473	8.1967
T3	S5	HT	VT	8.6542	8.2418	9.8361

TEDDYBEAR : HARVEST 5/SECONDARY : %RA

TSHV MEANS
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			B	M	T
T1	S1	HB	3.9405 b	0.1873 a	0.0000 a
		T	5.6226 b	9.0965 c	9.5631 c
	2	HB	5.3875 b	0.2033 a	0.0000 a
		T	4.3811 b	8.5067 c	9.5950 c
	3	HB	4.0618 b	0.0000 a	0.0000 a
		T	5.1269 b	8.8302 c	9.3632 c
	4	HB	4.5022 b	0.0000 a	0.0000 a
		T	4.7979 b	10.7051 c	9.3001 c
	5	HB	4.8172 b	0.0000 a	0.0000 a
		T	4.7575 b	8.8813 c	9.5747 c
2	S1	HB	5.9314 b	0.2045 a	0.0000 a
		T	4.1433 b	9.1647 c	10.0747 c
	2	HB	5.7918 b	0.0000 a	0.0000 a
		T	4.0649 b	10.1610 c	9.8567 c
	3	HB	3.9245 b	0.0000 a	0.0000 a
		T	5.4447 bc	8.8091 c	9.5401 d
	4	HB	6.9567 c	0.2008 a	0.0000 a
		T	3.1910 b	11.9152 d	10.1497 d
	5	HB	6.9007 c	0.0000 a	0.0000 a
		T	3.2857 b	11.6592 d	10.1863 d
3	S1	HB	6.1813 c	0.0000 a	0.0000 a
		T	3.5793 b	10.0117 d	9.3818 d
	2	HB	5.3443 b	0.0000 a	0.0000 a
		T	4.2007 b	9.3647 c	9.5450 c
	3	HB	3.0151 c	0.0000 a	0.0000 a
		T	2.3121 b	12.7201 e	10.1430 d
	4	HB	5.9841 b	0.0000 a	0.0000 a
		T	4.0267 b	11.5024 c	10.0129 c
	5	HB	3.7789 b	0.0000 a	0.0000 a
		T	5.1934 bc	8.5994 cb	8.9773 d

APPENDIX 32: CONTINUED

DATA
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HARVEST 6; SECONARY : RA

T1	S1	HB	VB	3.7838	3.2787	5.6842
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	4.3243	5.4645	5.2632
T1	S1	HT	VM	4.3243	6.7432	10.5263
T1	S1	HT	VT	8.6486	6.7432	3.9474
T1	S2	HB	VB	5.4602	5.4054	3.1579
T1	S2	HB	VM	0.0000	0.0000	0.0000
T1	S2	HB	VT	0.0000	0.5405	0.0000
T1	S2	HT	VB	5.7803	4.8649	6.3158
T1	S2	HT	VM	8.6705	11.3514	8.9474
T1	S2	HT	VT	9.2486	9.7297	9.4737
T1	S3	HB	VB	4.0816	4.4554	4.4554
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	5.1020	4.4554	4.9505
T1	S3	HT	VM	11.2245	8.4158	10.3960
T1	S3	HT	VT	9.1837	9.4059	9.4059
T1	S4	HB	VB	5.4348	3.1746	4.4944
T1	S4	HB	VM	0.0000	0.0000	0.0000
T1	S4	HB	VT	0.0000	0.0000	0.0000
T1	S4	HT	VB	3.6043	5.8201	4.4944
T1	S4	HT	VM	11.9565	3.7037	8.9888
T1	S4	HT	VT	9.2391	8.9947	8.9888
T1	S5	HB	VB	6.4103	4.6632	6.1798
T1	S5	HB	VM	0.0000	0.0000	0.0000
T1	S5	HB	VT	0.0000	0.0000	0.0000
T1	S5	HT	VB	4.4872	5.6995	3.3708
T1	S5	HT	VM	9.6154	9.3264	11.7978
T1	S5	HT	VT	9.6154	8.2902	9.5506
T2	S1	HB	VB	5.2632	5.9524	8.3333
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.0000	0.0000
T2	S1	HT	VB	4.6704	4.1667	2.3810
T2	S1	HT	VM	11.6959	10.7143	11.9048
T2	S1	HT	VT	9.9415	10.1190	10.7143
T2	S2	HB	VB	5.0847	5.1136	4.7368
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	4.5198	4.5455	5.2632
T2	S2	HT	VM	10.1695	10.2273	10.5263
T2	S2	HT	VT	9.6045	9.6591	10.0000
T2	S3	HB	VB	5.4348	6.5868	5.4545
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	4.3478	3.5928	4.2424
T2	S3	HT	VM	11.4130	11.3772	9.0909
T2	S3	HT	VT	9.7826	10.1796	9.6970
T2	S4	HB	VB	7.1895	7.1429	4.4693
T2	S4	HB	VM	0.0000	0.0000	0.0000
T2	S4	HB	VT	0.0000	0.5952	0.0000
T2	S4	HT	VB	2.6144	3.5714	4.4693
T2	S4	HT	VM	12.4183	11.9048	8.3799
T2	S4	HT	VT	9.8039	10.1190	8.9385
T2	S5	HB	VB	2.4272	2.8409	5.0847
T2	S5	HB	VM	0.0000	0.5682	0.0000
T2	S5	HB	VT	0.0000	0.0000	0.0000
T2	S5	HT	VB	6.3107	6.2500	4.5198
T2	S5	HT	VM	5.3398	7.9545	10.7345
T2	S5	HT	VT	8.7379	8.5227	9.6045
T3	S1	HB	VB	5.3708	6.0241	4.2328
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	5.6180	3.6145	5.2910
T3	S1	HT	VM	5.0562	11.4458	8.4656
T3	S1	HT	VT	8.9888	9.6386	9.5238

APPENDIX 32: CONTINUED

T3	S2	HB	VB	5.1136	6.0537	5.6180
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.0000	0.0000
T3	S2	HT	VB	4.5455	2.0846	3.9326
T3	S2	HT	VM	10.2273	12.0805	12.3596
T3	S2	HT	VT	7.3864	10.7383	9.5506
T3	S3	HB	VB	5.3191	5.2356	6.3953
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	4.2553	4.7120	3.4884
T3	S3	HT	VM	5.3191	9.9476	12.2093
T3	S3	HT	VT	10.1064	9.9476	9.8837
T3	S4	HB	VB	4.5918	6.0606	12.6761
T3	S4	HB	VM	0.0000	0.6061	1.4085
T3	S4	HB	VT	0.0000	0.0000	2.1127
T3	S4	HT	VB	4.5918	3.6364	0.0000
T3	S4	HT	VM	7.1429	5.4545	12.6761
T3	S4	HT	VT	9.6939	9.6970	10.5634
T3	S5	HB	VB	5.3476	4.1026	4.4693
T3	S5	HB	VM	0.0000	0.0000	0.0000
T3	S5	HB	VT	0.0000	0.0000	0.0000
T3	S5	HT	VB	4.2781	5.1282	5.5866
T3	S5	HT	VM	9.6257	8.7179	8.9385
T3	S5	HT	VT	9.6257	9.7436	9.4972

TEDDYBEAR : HARVEST 6/SECONDARY : %RA

TSHV MEANS

			B	M	T
T1	S1	HB	3.5822 b	0.0000 a	0.0000 a
		T	5.0173 b	7.8646 c	8.7797 c
	2	HB	4.0105 b	0.0000 a	0.1602 a
		T	5.6537 b	9.6564 c	9.4840 c
	3	HB	4.3308 b	0.0000 a	0.0000 a
		T	4.8300 b	10.0121 c	9.3319 c
	4	HB	4.3679 b	0.0000 a	0.0000 a
		T	4.7063 b	8.2163 c	9.0742 c
	5	HB	5.7511 b	0.0000 a	0.0000 a
		T	4.5191 b	10.2465 c	9.1520 c
2	S1	HB	6.5163 c	0.0000 a	0.0000 a
		T	3.7420 b	11.4363 d	10.2583 d
	2	HB	4.9784 b	0.0000 a	0.0000 a
		T	4.7761 b	10.3077 c	9.7545 c
	3	HB	5.8254 b	0.0000 a	0.0000 a
		T	4.0610 b	10.6271 c	9.8664 c
	4	HB	6.2672 c	0.0000 a	0.1984 a
		T	3.5517 b	10.9010 d	9.6205 d
	5	HB	3.4509 b	0.1894 a	0.0000 a
		T	5.6935 c	8.0096 d	6.9550 d
3	S1	HB	4.5426 b	0.0000 a	0.0000 a
		T	4.8411 b	8.3225	9.3837
	2	HB	6.2618 c	0.0000 a	0.0000 a
		T	3.7209 b	11.5558 e	9.2251 d
	3	HB	5.6500 b	0.0000 a	0.0000 a
		T	4.1519 b	9.1567 c	9.9792 c
	4	HB	7.7762 b	0.6715 a	0.7042 a
		T	2.7427 a	8.4245 bc	9.9847 c
	5	HB	4.6398 b	0.0000 a	0.0000 a
		T	4.9976 b	9.0941 c	9.6222 c

APPENDIX 33: PERCENTAGE OF ALL OVULE TYPES IN PRIMARY HEADS AT THE FIRST AND SECOND HARVESTS (5 AND 10 DAYS AFTER ANTHESIS).

%AA = ovules with active stigmas
%BA = swollen conical shaped ovules
%CA = cylindrical shaped fertile ovule
%DA = shrunken, shrivelled sterile ovule
%EA = distorted conical shaped ovules
%RA = rudimentary sterile ovules

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %AA

DATA
====

T1	S1	35.2657	70.8134	75.6219
T1	S2	21.0762	6.4158	3.5242
T1	S3	3.4653	3.8697	8.4906
T2	S1	0.0000	6.5859	8.5000
T2	S2	0.0000	0.4717	0.4739
T2	S3	0.9050	0.0000	0.0000
T3	S1	0.9524	2.5641	2.7650
T3	S2	0.4608	1.3761	2.4155
T3	S3	0.9390	0.0000	0.9434

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %AA

TS MEANS
========

	1	2	3
T1	60.5670 b	11.0054 a	5.2085 a
2	5.6953 a	0.3152 a	0.3017 a
3	2.0938 a	1.4175 a	0.6275 a

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %BA

DATA
====

T1	S1	0.0000	6.1340	1.4925
T1	S2	0.0000	0.0000	0.0000
T1	S3	3.9604	4.1284	1.4151
T2	S1	2.0305	7.0707	19.5000
T2	S2	2.4631	3.7736	4.2654
T2	S3	12.6697	5.7018	7.8341
T3	S1	1.9048	5.1282	2.7650
T3	S2	6.4516	7.3394	1.4493
T3	S3	6.1033	3.7209	10.3774

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %BA

TS MEANS
========

	1	2	3
T1	3.2088 ab	0.0000 a	3.1600 ab
2	9.5337 b	3.5007 ab	6.7352 b
3	3.2660 ab	5.0801 ab	6.7339 ab

APPENDIX 33: CONTINUED

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %CA

DATA
====

T1	S1	0.000	0.000	0.000
T1	S2	9.417	36.139	15.419
T1	S3	62.871	76.147	64.151
T2	S1	62.437	53.535	52.000
T2	S2	80.296	74.057	68.720
T2	S3	67.873	75.000	72.811
T3	S1	77.143	65.128	71.889
T3	S2	73.272	67.431	69.082
T3	S3	70.892	74.884	68.868

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %CA

TS MEANS
========

	1	2	3
T1	0.000 a	20.325 b	67.723 d
2	55.991 a	74.358 a	71.895 a
3	71.387 a	69.928 d	71.548 d

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %DA

DATA
====

T1	S1	46.8599	0.0000	0.0000
T1	S2	52.4664	34.1584	59.0308
T1	S3	7.9208	0.0000	9.9057
T2	S1	0.0000	0.0000	0.0000
T2	S2	0.0000	0.0000	0.0000
T2	S3	0.0000	0.0000	0.0000
T3	S1	0.0000	0.0000	0.0000
T3	S2	0.0000	0.0000	0.0000
T3	S3	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 1;PRIMARY TOTALS : %DA

TS MEANS
========

	1	2	3
T1	15.6200 a	48.5519 b	5.9422 a
2	0.0000 a	0.0000 a	0.0000 a
3	0.0000 a	0.0000 a	0.0000 a

APPENDIX 33: CONTINUED

TEDDYBEAR : HARVEST 1/PRIMARY TOTALS : %EA

DATA

T1	S1	0.0000	0.0000	0.0000
T1	S2	0.0000	0.0000	0.0000
T1	S3	0.0000	0.0000	0.0000
T2	S1	10.6599	4.0404	1.0000
T2	S2	0.4926	0.9434	1.8957
T2	S3	1.8100	1.3158	1.3825
T3	S1	0.9524	2.0513	1.3825
T3	S2	1.8433	2.2936	0.9662
T3	S3	1.8779	4.1860	2.3585

TS MEANS

	1	2	3
T1	0.0000 a	0.0000 a	0.0000 a
2	5.2334 b	1.1106 a	1.5027 a
3	1.4621 a	1.7010 a	2.8075 ab

TEDDYBEAR : HARVEST 1/PRIMARY TOTALS : %RA

DATA

T1	S1	17.874	21.053	22.666
T1	S2	17.040	21.287	22.026
T1	S3	21.782	16.055	16.038
T2	S1	24.873	26.768	19.000
T2	S2	16.749	20.755	24.645
T2	S3	16.742	17.962	17.972
T3	S1	19.048	25.128	21.198
T3	S2	17.972	21.560	26.087
T3	S3	20.188	17.209	17.453

TEDDYBEAR : HARVEST 1/PRIMARY TOTALS : %RA

TS MEANS

	1	2	3
T1	20.604 a	20.118 a	17.958 a
2	23.547 a	20.716 a	17.506 a
3	21.791 a	21.873 a	18.203 a

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %AA

DATA
====

T1	S1	0.00000	0.00000	0.00000
T1	S2	0.00000	0.00000	0.00000
T1	S3	0.00000	0.00000	0.00000
T1	S4	0.46083	0.00000	0.00000
T1	S5	0.48544	0.00000	0.51546
T2	S1	0.00000	0.00000	0.00000
T2	S2	0.00000	0.00000	0.00000
T2	S3	0.00000	0.00000	0.00000
T2	S4	0.00000	0.00000	0.00000
T2	S5	0.00000	1.95122	0.00000
T3	S1	0.00000	0.00000	0.00000
T3	S2	0.00000	0.00000	0.00000
T3	S3	0.00000	0.00000	0.00000
T3	S4	0.00000	0.00000	0.00000
T3	S5	1.38839	0.00000	0.00000

TS MEANS
========

	1	2	3	4	5
T1	0.00000 a	0.00000 a	0.00000 a	0.15361 a	0.33363 a
2	0.00000 a	0.00000 a	0.00000 a	0.00000 a	0.65041 a
3	0.00000 a	0.00000 a	0.00000 a	0.00000 a	0.46296 a

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %BA

DATA
====

T1	S1	0.000000	0.000000	0.000000
T1	S2	0.000000	0.000000	0.000000
T1	S3	0.000000	0.000000	0.000000
T1	S4	0.000000	0.917431	0.000000
T1	S5	0.000000	0.000000	0.000000
T2	S1	0.000000	0.000000	0.000000
T2	S2	0.000000	0.000000	0.000000
T2	S3	0.000000	0.000000	0.000000
T2	S4	0.000000	0.000000	0.000000
T2	S5	0.000000	0.000000	0.000000
T3	S1	0.000000	0.000000	0.000000
T3	S2	0.000000	0.000000	0.000000
T3	S3	0.000000	0.000000	0.000000
T3	S4	0.000000	0.000000	0.952381
T3	S5	0.000000	0.000000	0.000000

TS MEANS
========

	1	2	3	4	5
T1	0.000000 a	0.000000 a	0.000000 a	0.305810 a	0.000000 a
2	0.000000 a	0.000000 a	0.000000 a	0.000000 a	0.000000 a
3	0.000000 a	0.000000 a	0.000000 a	0.317460 a	0.000000 a

APPENDIX 33: CONTINUED

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %CA

DATA
====

T1	S1	0.000	0.000	0.000
T1	S2	2.000	9.302	3.902
T1	S3	39.691	52.511	36.190
T1	S4	82.949	73.853	72.936
T1	S5	75.728	80.769	77.320
T2	S1	46.829	76.042	54.630
T2	S2	75.481	69.307	74.737
T2	S3	75.362	81.279	82.160
T2	S4	70.233	75.369	80.088
T2	S5	73.684	75.122	79.426
T3	S1	63.959	74.038	70.313
T3	S2	73.430	74.384	68.063
T3	S3	81.106	75.598	77.679
T3	S4	75.926	76.852	67.619
T3	S5	77.778	77.679	76.316

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %CA

TS MEANS
========

	1	2	3	4	5
T1	0.000 a	5.068 a	42.798 b	76.579 b	77.939 d
2	59.167 c	73.175 d	79.600 d	75.230 d	76.077 d
3	69.437 d	71.959 d	78.128 d	73.466 d	77.257 d

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %DA

DATA
====

T1	S1	71.357	80.460	80.543
T1	S2	68.000	69.302	72.195
T1	S3	35.567	27.397	40.476
T1	S4	0.000	0.000	4.128
T1	S5	0.000	0.000	0.000
T2	S1	5.854	3.646	7.407
T2	S2	0.000	0.000	0.000
T2	S3	0.966	0.457	0.469
T2	S4	0.000	0.000	0.442
T2	S5	0.000	0.000	0.000
T3	S1	1.523	0.481	3.646
T3	S2	0.000	0.000	0.000
T3	S3	1.382	0.478	3.571
T3	S4	0.926	0.463	1.429
T3	S5	0.000	0.000	0.000

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %DA

TS MEANS
========

	1	2	3	4	5
T1	77.453 c	69.832 d	34.480 c	1.376 ab	0.000 a
2	5.636 b	0.000 a	0.631 a	0.147 a	0.000 a
3	1.883 ab	0.000 a	1.811 ab	0.939 a	0.000 a

APPENDIX 33: CONTINUED

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %EA

DATA
====

T1	S1	0.0000	0.0000	0.0000
T1	S2	0.0000	0.0000	0.0000
T1	S3	4.6392	1.3699	0.0000
T1	S4	1.8433	5.9633	0.4567
T1	S5	2.9126	5.7692	5.1546
T2	S1	22.9268	1.5625	18.0556
T2	S2	3.3654	5.9406	2.6316
T2	S3	2.4155	0.9132	3.2864
T2	S4	8.3721	1.9704	1.7699
T2	S5	10.0478	2.9268	5.7416
T3	S1	5.0761	3.3654	0.5208
T3	S2	2.8986	3.9409	6.2827
T3	S3	0.9217	0.9569	1.7657
T3	S4	0.9259	2.3148	4.2857
T3	S5	3.7037	5.3571	7.0175

TS MEANS
========

	1	2	3	4	5
T1	0.0000a	0.0000 a	2.0030a	2.7551a	4.6122a
2	14.1816b	3.9792 a	2.2050a	4.0375a	6.2388a
3	2.9875a	4.3741 a	1.2214a	2.5088a	5.3595a

TEDDYBEAR : HARVEST 2/PRIMARY TOTALS : %RA

DATA
====

T1	S1	28.643	19.540	19.457
T1	S2	30.000	21.395	23.902
T1	S3	20.103	18.721	23.333
T1	S4	14.747	19.266	22.477
T1	S5	20.874	13.462	17.010
T2	S1	24.390	18.750	19.907
T2	S2	21.154	24.752	22.632
T2	S3	21.256	17.352	14.085
T2	S4	21.395	22.660	17.699
T2	S5	16.268	20.000	14.833
T3	S1	29.442	22.115	25.521
T3	S2	23.671	21.675	25.654
T3	S3	16.590	22.967	16.964
T3	S4	22.222	20.370	25.714
T3	S5	17.130	16.964	16.667

TS MEANS
========

	1	2	3	4	5
T1	22.547abcd	25.099 cd	20.719abcd	18.830abc	17.115b
2	21.016abcd	22.846abcd	17.564ab	20.585abcd	17.033b
3	25.693d	23.667bcd	18.840abcd	22.769abcd	16.920a

APPENDIX 34: PERCENTAGE OF ALL OVULE TYPES IN SECONDARY HEADS AT THE FIRST AND SECOND HARVESTS (5 and 10 DAYS AFTER ANTHESIS) = %AA, %BA, %CA, %DA, %EA, %and %RA, as described in Appendix 33

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %AA

DATA

T1	S1	68.230	79.204	74.194
T1	S2	71.212	63.636	69.421
T1	S3	43.564	26.257	46.632
T2	S1	6.897	10.191	10.056
T2	S2	33.918	26.131	7.143
T2	S3	14.236	10.732	15.075
T3	S1	48.421	7.576	30.159
T3	S2	14.286	20.896	45.625
T3	S3	3.825	4.188	14.433

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %AA

TS MEANS

	1	2	3
T1	73.892d	68.090d	38.818c
2	9.048ab	22.397abc	13.364ab
3	28.719bc	26.935abc	7.482a

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %BA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	9.091	0.000
T1	S3	0.000	1.117	0.518
T2	S1	17.241	15.287	39.106
T2	S2	8.772	18.090	9.890
T2	S3	24.490	19.024	22.613
T3	S1	4.737	23.737	17.460
T3	S2	19.524	12.935	13.125
T3	S3	16.393	13.613	19.568

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %BA

TS MEANS

	1	2	3
T1	0.000a	3.030ab	0.545a
2	23.878c	12.251bc	22.042c
3	15.312c	15.195c	16.531c

APPENDIX 34: CONTINUED

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %CA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	14.851	18.436	12.435
T2	S1	43.678	41.401	26.257
T2	S2	29.825	31.658	52.747
T2	S3	32.653	44.878	34.171
T3	S1	15.263	47.980	20.635
T3	S2	41.905	35.821	9.375
T3	S3	50.273	49.738	38.144

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %CA

TS MEANS

	1	2	3
T1	0.000 a	0.000 a	15.241 ab
2	37.112 c	38.077 c	37.234 c
3	27.959 bc	29.034 bc	46.052 c

TEDDYBEAR : HARVEST 1;SECONDARY TOTALS : %DA

DATA

T1	S1	0.0000	0.0000	0.0000
T1	S2	0.0000	0.0000	0.0000
T1	S3	14.8515	23.4637	11.3990
T2	S1	0.0000	0.0000	0.0000
T2	S2	0.0000	0.0000	0.0000
T2	S3	0.0000	0.0000	0.0000
T3	S1	0.0000	0.0000	0.0000
T3	S2	0.0000	0.0000	0.0000
T3	S3	0.0000	0.0000	0.0000

TS MEANS

	1	2	3
T1	0.0000 a	0.0000 a	16.5714 b
2	0.0000 a	0.0000 a	0.0000 a
3	0.0000 a	0.0000 a	0.0000 a

APPENDIX 34: CONTINUED

TEDDYBEAR : HARVEST 1/SECONDARY TOTALS : %EA

DATA

T1	S1	0.00000	0.00000	0.00000
T1	S2	0.00000	0.00000	0.00000
T1	S3	0.00000	1.11732	0.00000
T2	S1	1.14943	1.27389	2.79330
T2	S2	0.58430	0.00000	0.00000
T2	S3	0.00000	0.00000	0.00000
T3	S1	0.52632	2.02020	0.00000
T3	S2	0.47619	0.99502	0.00000
T3	S3	0.54645	3.60492	0.00000

TS MEANS

	1	2	3
T1	0.00000a	0.00000a	0.37244ab
2	1.73887b	0.19493ab	0.00000a
3	0.84884ab	0.49041a	1.40379ab

TEDDYBEAR : HARVEST 1/SECONDARY TOTALS : %RA

DATA

T1	S1	31.720	20.796	25.806
T1	S2	28.788	27.273	30.579
T1	S3	26.733	29.609	29.016
T2	S1	31.034	31.847	21.788
T2	S2	26.901	24.121	30.220
T2	S3	28.571	25.366	28.141
T3	S1	31.053	18.687	31.746
T3	S2	23.810	29.353	31.675
T3	S3	28.962	28.796	27.835

TS MEANS

	1	2	3
T1	26.108a	28.880a	28.452a
2	28.223a	27.030a	27.359a
3	27.162a	28.346a	28.531a

APPENDIX 34: CONTINUED+

TEDDYBEAR : HARVEST 2/SECONDARY TOTALS : %CA

DATA

T1	S1	0.000	0.000	0.000
T1	S2	0.000	0.000	0.000
T1	S3	7.101	8.458	3.390
T1	S4	52.778	56.977	53.552
T1	S5	75.455	65.979	59.830
T2	S1	44.444	60.843	51.149
T2	S2	59.091	66.071	63.889
T2	S3	71.204	55.862	62.428
T2	S4	37.500	63.953	62.983
T2	S5	73.333	64.286	51.592
T3	S1	48.077	50.303	65.455
T3	S2	61.622	58.940	45.732
T3	S3	68.108	68.421	63.415
T3	S4	59.322	64.912	66.474
T3	S5	61.714	61.728	67.000

TS MEANS

	1	2	3	4	5
T1	0.000a	0.000a	6.316a	54.435bc	57.105c
2	52.146b	63.017bc	63.165bc	54.812bc	63.070bc
3	54.611bc	55.431bc	66.648c	63.569bc	63.481bc

TEDDYBEAR : HARVEST 2/SECONDARY TOTALS : %DA

DATA

T1	S1	74.706	70.556	70.103
T1	S2	69.022	70.349	69.101
T1	S3	62.130	64.677	64.972
T1	S4	16.111	11.047	16.393
T1	S5	7.727	3.608	10.180
T2	S1	22.222	11.446	15.517
T2	S2	10.227	1.786	7.222
T2	S3	3.665	10.345	5.780
T2	S4	30.978	4.651	7.182
T2	S5	4.615	10.204	19.745
T3	S1	19.231	20.606	7.273
T3	S2	8.649	7.285	23.780
T3	S3	3.784	2.632	5.691
T3	S4	9.605	5.263	4.624
T3	S5	6.857	4.938	5.500

TS MEANS

	1	2	3	4	5
T1	71.788c	69.491c	63.926c	14.517ab	7.172ab
2	16.395ab	6.412ab	6.597ab	14.271ab	11.522ab
3	15.703b	13.238ab	4.035a	6.497ab	5.765ab

+ Ovule types "A", "B" and "E" were not present at the second harvest (10 days after anthesis) on secondary heads

APPENDIX 34: CONTINUED

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : %RA

DATA
====

T1	S1	25.294	29.444	29.697
T1	S2	30.978	29.651	30.899
T1	S3	30.769	26.866	31.638
T1	S4	31.111	31.977	30.055
T1	S5	16.818	30.412	29.940
T2	S1	33.333	27.711	33.333
T2	S2	30.682	32.143	28.669
T2	S3	25.131	33.793	31.792
T2	S4	31.522	31.395	29.634
T2	S5	22.051	25.510	28.662
T3	S1	32.692	29.091	27.273
T3	S2	29.730	33.775	30.468
T3	S3	28.108	28.947	30.694
T3	S4	31.073	29.825	28.902
T3	S5	31.429	33.333	27.500

TEDDYBEAR : HARVEST 2;SECONDARY TOTALS : %RA

TS MEANS
========

	1	2	3	4	5
T1	28.212 a	30.509 a	29.758 a	31.048 a	25.724 a
2	31.459 a	30.571 a	30.239 a	30.917 a	25.408 a
3	29.685 a	31.331 a	29.317 a	29.933 a	30.754 a

APPENDIX 35: PERCENTAGE DISTRIBUTION OF "A" (OVULES WITH ACTIVE STIGMAS) AND "B" (OVULES SWOLLEN AND CONICAL SHAPED) TYPE OVULES IN 6 POSITIONS WITHIN THE PRIMARY HEAD AT THE FIRST HARVEST = %AA, %BA.

TEDDYBEAR : HARVEST 1; PRIMARY : %AA

DATA
====

T1	S1	HB	VB	5.8647	11.0046	13.9303
T1	S1	HB	VM	0.0000	14.8325	19.4080
T1	S1	HB	VT	3.3816	17.2249	17.9104
T1	S1	HT	VB	5.7971	5.7416	5.4726
T1	S1	HT	VM	15.4569	16.7464	14.9254
T1	S1	HT	VT	6.7653	5.2632	4.9751
T1	S2	HB	VB	4.0359	0.0000	0.0000
T1	S2	HB	VM	0.4464	0.0000	0.0000
T1	S2	HB	VT	0.8969	0.0000	0.0000
T1	S2	HT	VB	4.4843	2.4752	0.4405
T1	S2	HT	VM	6.5202	4.4554	1.7621
T1	S2	HT	VT	2.6906	1.4851	1.3216
T1	S3	HB	VB	0.0000	0.4587	0.4717
T1	S3	HB	VM	0.0000	0.0000	0.0000
T1	S3	HB	VT	0.0000	0.0000	0.0000
T1	S3	HT	VB	0.9901	0.4587	1.4151
T1	S3	HT	VM	1.4851	0.9174	5.1887
T1	S3	HT	VT	0.9901	1.8349	1.4151
T2	S1	HB	VB	0.0000	1.0101	0.0000
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	0.0000	0.5051	0.0000
T2	S1	HT	VB	0.0000	2.5253	1.5000
T2	S1	HT	VM	0.0000	3.5354	5.5000
T2	S1	HT	VT	0.0000	1.0101	1.5000
T2	S2	HB	VB	0.0000	0.0000	0.0000
T2	S2	HB	VM	0.0000	0.0000	0.0000
T2	S2	HB	VT	0.0000	0.0000	0.0000
T2	S2	HT	VB	0.0000	0.0000	0.0000
T2	S2	HT	VM	0.0000	0.4717	0.4739
T2	S2	HT	VT	0.0000	0.0000	0.0000
T2	S3	HB	VB	0.4525	0.0000	0.0000
T2	S3	HB	VM	0.0000	0.0000	0.0000
T2	S3	HB	VT	0.0000	0.0000	0.0000
T2	S3	HT	VB	0.0000	0.0000	0.0000
T2	S3	HT	VM	0.4525	0.0000	0.0000
T2	S3	HT	VT	0.0000	0.0000	0.0000
T3	S1	HB	VB	0.0000	0.0000	0.0000
T3	S1	HB	VM	0.0000	0.0000	0.0000
T3	S1	HB	VT	0.0000	0.0000	0.0000
T3	S1	HT	VB	0.4762	2.0513	1.3825
T3	S1	HT	VM	0.0000	0.0000	1.3825
T3	S1	HT	VT	0.4762	0.5128	0.0000
T3	S2	HB	VB	0.0000	0.0000	0.0000
T3	S2	HB	VM	0.0000	0.0000	0.0000
T3	S2	HB	VT	0.0000	0.4587	0.0000
T3	S2	HT	VB	0.4608	0.9174	1.4493
T3	S2	HT	VM	0.0000	0.0000	0.0000
T3	S2	HT	VT	0.0000	0.0000	0.9662
T3	S3	HB	VB	0.4695	0.0000	0.0000
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.0000	0.0000	0.0000
T3	S3	HT	VB	0.0000	0.0000	0.4717
T3	S3	HT	VM	0.4695	0.0000	0.4717
T3	S3	HT	VT	0.0000	0.0000	0.0000

TEDDYBEAR : HARVEST 1; PRIMARY : %AA

TSHV MEANS

			B	M	T
T1	S1	HB	9.6000b	11.0802bc	12.8390c
		T	5.6705a	15.7102d	5.6672a
	2	HB	1.3453a	0.1495a	0.2990a
		T	2.4667ab	4.9126b	1.8324a
	3	HB	0.3101a	0.0000a	0.0000a
		T	0.9546a	2.5304a	1.4134a
2	S1	HB	0.3367a	0.0000a	0.1684a
		T	1.3418a	3.0118a	0.8367a
	2	HB	0.0000a	0.0000a	0.0000a
		T	0.0000a	0.3152a	0.0000a
	3	HB	0.1508a	0.0000a	0.0000a
		T	0.0000a	0.1508a	0.0000a
3	S1	HB	0.0000a	0.0000a	0.0000a
		T	1.3033a	0.4608a	0.3297a
	2	HB	0.0000a	0.0000a	0.1529a
		T	0.9425a	0.0000a	0.3221a
	3	HB	0.1565a	0.0000a	0.0000a
		T	0.1572a	0.3137a	0.0000a

APPENDIX 35: CONTINUED

TEDDYBEAR : HARVEST 1; PRIMARY : %BA

DATA
====

T1	S1	HB	VB	0.00000	1.91386	0.00000
T1	S1	HB	VM	0.00000	6.22010	1.49254
T1	S1	HB	VT	0.00000	0.00000	0.00000
T1	S1	HT	VB	0.00000	0.00000	0.00000
T1	S1	HT	VM	0.00000	0.00000	0.00000
T1	S1	HT	VT	0.00000	0.00000	0.00000
T1	S2	HB	VB	0.00000	0.00000	0.00000
T1	S2	HB	VM	0.00000	0.00000	0.00000
T1	S2	HB	VT	0.00000	0.00000	0.00000
T1	S2	HT	VB	0.00000	0.00000	0.00000
T1	S2	HT	VM	0.00000	0.00000	0.00000
T1	S2	HT	VT	0.00000	0.00000	0.00000
T1	S3	HB	VB	2.47525	0.45872	0.00000
T1	S3	HB	VM	0.49505	1.37615	0.47170
T1	S3	HB	VT	0.49505	0.45872	0.00000
T1	S3	HT	VB	0.00000	0.45872	0.00000
T1	S3	HT	VM	0.49505	0.00000	0.94340
T1	S3	HT	VT	0.00000	1.37615	0.00000
T2	S1	HB	VB	0.50761	2.52525	4.00000
T2	S1	HB	VM	0.00000	0.50505	4.00000
T2	S1	HB	VT	0.00000	0.50505	2.50000
T2	S1	HT	VB	1.01523	0.00000	1.50000
T2	S1	HT	VM	0.00000	2.52525	5.00000
T2	S1	HT	VT	0.50761	1.01010	2.50000
T2	S2	HB	VB	0.00000	0.00000	0.94787
T2	S2	HB	VM	0.00000	0.00000	0.00000
T2	S2	HB	VT	0.00000	0.00000	0.00000
T2	S2	HT	VB	0.96522	1.88679	1.89573
T2	S2	HT	VM	1.47783	1.88679	1.42180
T2	S2	HT	VT	0.00000	0.00000	0.00000
T2	S3	HB	VB	0.00000	0.00000	0.00000
T2	S3	HB	VM	0.90498	0.00000	0.00000
T2	S3	HB	VT	0.45249	0.00000	0.46083
T2	S3	HT	VB	3.61991	3.07016	1.38249
T2	S3	HT	VM	6.78733	2.63156	5.99078
T2	S3	HT	VT	0.90498	0.00000	0.00000
T3	S1	HB	VB	0.00000	0.51282	0.00000
T3	S1	HB	VM	0.00000	0.00000	0.00000
T3	S1	HB	VT	0.00000	0.00000	0.46083
T3	S1	HT	VB	1.42857	0.51282	0.00000
T3	S1	HT	VM	0.47619	3.07692	1.84332
T3	S1	HT	VT	0.00000	1.02564	0.46083
T3	S2	HB	VB	0.00000	0.00000	0.00000
T3	S2	HB	VM	0.00000	0.00000	0.00000
T3	S2	HB	VT	0.00000	0.00000	0.00000
T3	S2	HT	VB	2.30415	2.29358	0.48309
T3	S2	HT	VM	4.14747	4.12844	0.96618
T3	S2	HT	VT	0.00000	0.91743	0.00000
T3	S3	HB	VB	0.46948	0.00000	0.94340
T3	S3	HB	VM	0.00000	0.00000	0.00000
T3	S3	HB	VT	0.00000	0.00000	0.00000
T3	S3	HT	VB	2.34742	0.93023	3.30189
T3	S3	HT	VM	2.34742	2.79070	5.18868
T3	S3	HT	VT	0.93897	0.00000	0.94340

APPENDIX 35: CONTINUED

TEDDYBEAR : HARVEST 1; PRIMARY : %BA

TSHV MEANS

			B	M	T
T1	S1	HB	0.63796a	2.57068b	0.00000a
		T	0.00000a	0.00000a	0.00000a
	2	HB	0.00000a	0.00000a	0.00000a
		T	0.00000a	0.00000a	0.00000a
	3	HB	0.97799a	0.78096a	0.31792a
		T	0.15291a	0.47948a	0.45672a
2	S1	HB	2.34429bc	1.50168abc	1.00168ab
		T	0.83841a	2.50842c	1.33924abc
	2	HB	0.31596ab	0.00000a	0.00000a
		T	1.58925b	1.59548b	0.00000a
	3	HB	0.00000a	0.30166a	0.30444a
		T	2.69086b	5.13656c	0.30166a
3	S1	HB	0.17094a	0.00000a	0.15361a
		T	0.64713ab	1.79861b	0.49549ab
	2	HB	0.00000a	0.00000a	0.00000a
		T	1.69361b	3.08070c	0.30561a
	3	HB	0.47096a	0.00000a	0.00000a
		T	2.19318b	3.44226b	0.62745a

APPENDIX 36: PERCENTAGE DISTRIBUTION OF "A" (OVULES WITH ACTIVE STIGMAS) AND "B" (OVULES SWOLLEN AND CONICAL SHAPED) TYPE OVULES IN 6 POSITIONS WITHIN SECONDARY HEADS AT THE FIRST HARVEST (5 DAYS AFTER ANTHESIS) = %AA, %BA.

TEDDYBEAR : HARVEST 1/ SECONDARY : %AA

DATA
====

T1	S1	HB	VB	9.6774	13.2743	11.2903
T1	S1	HB	VM	22.5806	19.4690	21.5054
T1	S1	HB	VT	17.7419	16.5841	17.2043
T1	S1	HT	VB	2.6882	5.7522	4.3011
T1	S1	HT	VM	11.2903	15.9292	13.9785
T1	S1	HT	VT	4.3011	6.1947	5.9140
T1	S2	HB	VB	11.6162	6.5859	9.9174
T1	S2	HB	VM	21.2121	14.6465	21.4876
T1	S2	HB	VT	10.1818	16.1816	19.8347
T1	S2	HT	VB	3.5354	3.0303	2.4793
T1	S2	HT	VM	10.6061	13.1313	10.7438
T1	S2	HT	VT	6.0606	6.0606	4.9587
T1	S3	HB	VB	7.4257	2.7933	7.2539
T1	S3	HB	VM	6.4356	6.7039	10.3627
T1	S3	HB	VT	9.4059	6.1453	12.4352
T1	S3	HT	VB	5.9604	3.3520	3.6269
T1	S3	HT	VM	12.3762	3.9106	9.8446
T1	S3	HT	VT	3.9604	3.3520	3.1088
T2	S1	HB	VB	0.0000	1.2739	1.1173
T2	S1	HB	VM	0.0000	0.0000	0.0000
T2	S1	HB	VT	1.7241	0.6369	1.6760
T2	S1	HT	VB	0.0000	3.1847	1.6760
T2	S1	HT	VM	2.2989	3.1847	3.9106
T2	S1	HT	VT	2.6736	1.9106	1.6760
T2	S2	HB	VB	4.6784	3.5176	0.0000
T2	S2	HB	VM	5.2632	2.0101	0.5495
T2	S2	HB	VT	11.1111	5.5276	0.0000
T2	S2	HT	VB	1.1696	3.0151	1.0989
T2	S2	HT	VM	7.6023	8.5427	3.8462
T2	S2	HT	VT	4.0936	3.5176	1.6484
T2	S3	HB	VB	3.0612	1.4634	1.0050
T2	S3	HB	VM	1.0204	0.0000	0.0000
T2	S3	HB	VT	2.5510	0.4878	2.5126
T2	S3	HT	VB	2.0408	2.4390	3.5176
T2	S3	HT	VM	4.5918	5.3659	4.0201
T2	S3	HT	VT	1.0204	0.9756	4.0201
T3	S1	HB	VB	5.2632	0.0000	4.2328
T3	S1	HB	VM	15.7895	0.0000	0.3492
T3	S1	HB	VT	15.7895	0.0000	6.3492
T3	S1	HT	VB	1.0526	2.5253	2.1164
T3	S1	HT	VM	7.3684	5.0505	5.2910
T3	S1	HT	VT	3.1579	0.0000	5.8201
T3	S2	HB	VB	1.9048	3.4826	4.3750
T3	S2	HB	VM	0.0000	1.4925	11.8750
T3	S2	HB	VT	1.4286	2.4876	10.6250
T3	S2	HT	VB	2.3810	3.4826	1.2500
T3	S2	HT	VM	5.2381	6.4677	11.8750
T3	S2	HT	VT	3.3333	3.4826	5.6250
T3	S3	HB	VB	0.0000	1.5707	1.5464
T3	S3	HB	VM	0.0000	0.0000	0.0000
T3	S3	HB	VT	0.5464	0.0000	2.5773
T3	S3	HT	VB	1.0929	0.0000	2.5773
T3	S3	HT	VM	1.0929	1.5707	5.6701
T3	S3	HT	VT	1.0929	1.0471	2.0619

APPENDIX 36: CONTINUED

TEDDYBEAR : HARVEST 1; SECONDARY : %AA

TSHV MEANS
===========

			B	M	T
T1	S1	HB	11.4140 b	21.1850 c	17.8434 c
		T	4.2472 a	13.7327 b	5.4699 a
	2	HB	10.0398 b	19.1154 c	18.7328 c
		T	3.0150 a	11.4937 b	5.6933 a
	3	HB	5.8243 ab	7.8341 b	9.3268 b
		T	3.6404 a	6.7105 b	3.4737 a
2	S1	HB	0.7971 a	0.0000 a	1.3457 a
		T	1.6202 a	3.1314 a	2.1535 a
	2	HB	2.7320 ab	2.6076 ab	5.5462 bc
		T	1.7612 a	6.6637 c	3.0865 abc
	3	HB	1.8432 ab	0.3401 a	1.8505 ab
		T	2.6658 ab	4.6593 b	2.0054 ab
3	S1	HB	3.1653 ab	7.3796 c	7.3796 c
		T	1.8931 a	5.9033 bc	2.9927 ab
	2	HB	3.2541 a	4.4558 ab	4.8470 ab
		T	2.3712 a	7.8603 b	4.1470 a
	3	HB	1.0390 a	0.0000 a	1.0413 a
		T	1.2234 a	2.7779 a	1.4006 a

APPENDIX 36: CONTINUED

TEDDYBEAR : HARVEST 1; SECONDARY : %BA

DATA
====

T1	S1	HB	VB	0.0000	0.0000	0.0000
T1	S1	HB	VM	0.0000	0.0000	0.0000
T1	S1	HB	VT	0.0000	0.0000	0.0000
T1	S1	HT	VB	0.0000	0.0000	0.0000
T1	S1	HT	VM	0.0000	0.0000	0.0000
T1	S1	HT	VT	0.0000	0.0000	0.0000
T1	S2	HB	VB	0.0000	1.5152	0.0000
T1	S2	HB	VM	0.0000	7.5758	0.0000
T1	S2	HB	VT	0.0000	0.0000	0.0000
T1	S2	HT	VB	0.0000	0.0000	0.0000
T1	S2	HT	VM	0.0000	0.0000	0.0000
T1	S2	HT	VT	0.0000	0.0000	0.0000
T1	S3	HB	VB	0.0000	0.0000	0.5181
T1	S3	HB	VM	0.0000	0.5587	0.0000
T1	S3	HB	VT	0.0000	0.5587	0.0000
T1	S3	HT	VB	0.0000	0.0000	0.0000
T1	S3	HT	VM	0.0000	0.0000	0.0000
T1	S3	HT	VT	0.0000	0.0000	0.0000
T2	S1	HB	VB	2.2909	3.8217	5.5866
T2	S1	HB	VM	5.1724	4.4586	0.3799
T2	S1	HB	VT	4.0230	5.0955	6.7039
T2	S1	HT	VB	1.7241	0.6369	1.6760
T2	S1	HT	VM	2.8736	1.2739	12.8492
T2	S1	HT	VT	1.1494	0.0000	3.9106
T2	S2	HB	VB	0.0000	5.5276	3.2967
T2	S2	HB	VM	0.1871	4.5226	1.0989
T2	S2	HB	VT	0.5848	3.0151	0.0000
T2	S2	HT	VB	0.0000	1.5075	1.0989
T2	S2	HT	VM	0.0000	2.0101	2.1978
T2	S2	HT	VT	0.0000	1.5075	2.1978
T2	S3	HB	VB	3.0612	3.9024	7.0352
T2	S3	HB	VM	0.6327	0.4878	3.0151
T2	S3	HB	VT	0.6327	3.4146	3.5176
T2	S3	HT	VB	2.0408	1.9512	0.5025
T2	S3	HT	VM	4.5918	6.6293	0.0402
T2	S3	HT	VT	1.5306	2.4390	0.5025
T3	S1	HB	VB	0.5263	3.0303	1.0582
T3	S1	HB	VM	0.0000	0.0000	4.7619
T3	S1	HB	VT	0.5263	2.5253	6.8783
T3	S1	HT	VB	0.0000	3.5354	0.0000
T3	S1	HT	VM	2.1053	10.1010	3.1746
T3	S1	HT	VT	1.5789	4.5455	1.5873
T3	S2	HB	VB	5.7143	2.9851	0.6250
T3	S2	HB	VM	4.2857	6.4677	8.1250
T3	S2	HB	VT	2.3810	2.4876	4.3750
T3	S2	HT	VB	1.4286	0.0000	0.0000
T3	S2	HT	VM	4.2857	0.9950	0.0000
T3	S2	HT	VT	1.4286	0.0000	0.0000
T3	S3	HB	VB	1.6393	2.6178	5.1546
T3	S3	HB	VM	0.0000	0.5236	3.6082
T3	S3	HB	VT	2.7322	2.0942	4.1237
T3	S3	HT	VB	1.6393	2.0942	1.0309
T3	S3	HT	VM	7.6503	4.7120	4.1237
T3	S3	HT	VT	2.7322	1.5707	1.5464

APPENDIX 36: CONTINUED

TSHV MEANS

			B	M	T
T1	S1	HB	0.0000 a	0.0000 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	2	HB	0.5051 a	2.5253 a	0.0000 a
		T	0.0000 a	0.0000 a	0.0000 a
	3	HB	0.1727 a	0.1862 a	0.1862 a
		T	0.0000 a	0.0000 a	0.0000 a
2	S1	HB	3.9024 ab	6.0036 b	5.2741 b
		T	1.3457 a	5.6655 b	1.6867 a
	2	HB	2.9414 ab	4.6029 b	1.2000 a
		T	0.8688 a	1.4026 a	1.2351 a
	3	HB	4.6603 c	5.3765 ab	4.5216 ab
		T	1.4982 a	0.4871 a	1.4907 a
3	S1	HB	1.5383	1.5873	3.3100
		T	1.1735	5.1270	2.5706
	2	HB	3.1081 ab	6.2928 c	3.0812 ab
		T	0.4762 a	1.7602 a	0.4762 a
	3	HB	3.1373 ab	1.3773 a	2.9634 ab
		T	1.5882 a	5.4953 b	1.9498 a