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The Effects Of Wet Winters And Winter Management On Early Season Milk Production.

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Abstract

The effect of a wet winter on milksolid production in early lactation was measured for the years 1994 and 1995, against the 1993 year which had a dry winter. Data for milksolid production to the end of December, and for the whole season, were collected from 70 farms in the Manawatu region that had remained relatively unchanged in area and cow numbers over the three years. Management information was also collected from 18 selected farmers, whose milksolid production was either affected or unaffected by the wet winters. These farmers were also visited to obtain supplementary information about their management.

For the 70 farms, the effect of the wet winters on production in early lactation was a significant reduction ($P < 1\%$) in milksolids for both wet years studied. (-24 KgMS/ha; -9 KgMS/cow in 1994, and -66 KgMS/ha; -26 KgMS/cow in 1995). These effects could have been caused by 0.2tDM/ha and 0.5tDM/ha less pasture being eaten in the wet springs of 1994 and 1995 respectively. However the effect on the total lactation milksolid production was not significant, with increases in late lactation compensating for the decreases apparent in early lactation.

The effect of the wet winters was probably to increase the incidence of pugging damage and to lower the pasture growth rates and pasture cover through calving and into early spring, reducing the ability of the farmers to feed lactating cows in early lactation.

For the 18 farms selected in the management survey, the effect of the wet winter (1995) on production in early lactation was larger on the affected farms (-133 KgMS/ha; -45 KgMS/cow), than for the unaffected farms (-4 KgMS/ha; -11 KgMS/cow). There was a significant decrease in the total seasons production for the affected farmers with lower production (-93 KgMS/ha; -25 KgMS/cow) in 1995 than 1993. The total seasons production for the unaffected farmers was a significant

increase of 80 KgMS/ha, and an increase of 13 KgMS/cow for 1995 compared to 1993.

There was no one single management strategy that was used during the wet winter of 1995 by unaffected farmers that was not used by the affected farmers. Instead, more unaffected farmers used off farm grazing, on-off grazing, and had better overall farm drainage. This decreased the risk of pugging damage during the winter, and early spring to enable more pasture to be converted to milksolids. There were differences in goals between the groups, because the affected farmers had more goals associated with lifestyle, while the unaffected farmers had more production orientated goals, with the unaffected farmers constantly monitoring the system to ensure the achievement of their production goals.

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List Of Abbreviations.

SR - Stocking rate

ha - Hectare

CS - Condition score

kgDM/ha - Kilogram(s) of dry matter per hectare

tDM/ha - Tonne(s) of dry matter per hectare

kgMS - Kilogram(s) of milksolids

kgMS/ha - Kilogram(s) of milksolids per hectare

kgMS/cow - Kilogram(s) of milksolids per cow

kgMF - Kilogram(s) of milk fat

kgMF/cow - Kilogram(s) of milk fat per cow

kgMF/ha - Kilogram(s) of milk fat per hectare

MJME - Mega joules of metabolisable energy

MJME/CS - Mega joules of metabolisable energy per condition score

\$/ha - Dollars per hectare