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# Response of kiwi to a range of baits and lures used for pest control in New Zealand.

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"Seagull"

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# Abstract

The primary aim of this thesis was to assess the palatability to North Island brown kiwi (*Apteryx australis mantelli*) of a range of non-toxic baits and flavours used to lure baits. During the wild bait trials incubation patterns of nesting male kiwi, chick behaviour and the presence of predators at the nesting burrow were recorded. A new 'improved' ground laid 1080 paste was also tested on a range of non-target bird species. All ten captive kiwi fed at least once on at least one bait type (i.e. carrot, No.7, RS5, apple pulp, and paste) but did not prefer any to their usual artificial diet. Wild kiwi did not feed on any bait type placed outside the nest entrance, but may have ingested apple pulp, or paste when they probed these baits. Results indicate that cereal-based baits are the safest bait type to sow aerially in kiwi habitat, while apple pulp baits are highly acceptable to kiwi. Cinnamon, aniseed, orange and clove flavours did not significantly attract or deter captive kiwi from feeding on portions of their usual diet. Insufficient flavoured cereal No.7 baits were eaten to determine whether any bait and flavour combination affected kiwi response to these baits. No wild kiwi fed on any cinnamon or orange flavoured No.7 cereal baits placed outside the nesting burrow, but kiwi did probe these baits. Incubating male kiwi left the nest once each night, except for two kiwi which sometimes left the nest twice in a night. One of these sometimes made three trips from the nest in a night. The active period of kiwi did not appear to be influenced by the number of times they emerged in a night. Male kiwi tended to spend less time away from the nest when chicks were due to hatch, following which they increased the time spent away. Possums, rats and mice regularly visited kiwi nests, but did not deter males from incubating, or harm kiwi eggs or chicks. Five species - robin, saddleback, blackbird, pukeko and weka, fed on a non-toxic cinnamon-lured form of 1080 paste. Species other than those mentioned rarely landed on the ground and therefore encountered paste infrequently. Captive weka found the paste highly palatable, while 24% of robins and possibly half of a pukeko family fed on the paste. All bird visits to the paste baits declined after the first day of exposure. Recommendations are made on the safe laying of paste baits in areas where robin, saddleback, weka or pukeko are present.

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