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EFFECT OF PRE-SLAUGHTER STARVATION ON WEIGHT-LOSS IN CATTLE

A. H. KIRTON and D. J. PATERSON

Ruakura Agricultural Research Centre, Hamilton

Mixed-aged cattle of beef and dairy origin were used in two experiments to assess weight loss following pre-slaughter starvation. The cattle, from a variety of sources, were given a standard nutritional treatment for two days before the experiments commenced.

In the first experiment, 100 cattle were randomized to five groups. The cattle at the commencement of the experiments ranged from 1 to 14 years of age and averaged 317 kg liveweight. The control group of animals was slaughtered straight off pasture with the remaining groups being killed after 1, 2, 3 and 4 days' starvation in a concrete yard with access to water. Liveweight loss was fastest over the first 2 days' starvation and reached 10% (31 kg) of initial weight after 4 days' starvation. There was no evidence of carcass loss over the first 3 days' starvation with a suggestion of a slight loss (6 kg; $P < 0.10$) as a result of the 4th day's starvation. Treatments resulted in a loss of stomach weight, stomach contents, and intestines with contents. Treatments caused no reduction in the weights of the heart or omental fat, but losses of liver weight approached significance.

In the second experiment, 45 cattle were randomized to three groups. The animals ranged from 2 to 11 years of age and averaged 331 kg in initial liveweight. The control group was slaughtered straight off pasture with the remaining groups being slaughtered after 4 and 8 days' starvation. Liveweight losses amounted to 15% of initial weight after 8 days' starvation and loss of carcass weight was estimated to be 14% after the longest period of starvation.