

TRAINING LAMBS TO EAT LUPIN SEED HAS NO EFFECT ON THE RATE THAT THESE SHEEP CONSUME THE SEED IN A LUPIN STUBBLE

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In the absence of lupinosis, weaners can increase liveweight when grazing sweet lupin stubbles (McDonald *et al.* 1991). However, weaners are more susceptible to lupinosis than older sheep, possibly because they are less selective in their diet and eat proportionally more toxic stem and pod material. Our aim was to determine the effect of training lambs to eat lupin seed on the rate of disappearance of the seed from lupin stubbles when these sheep grazed them.

In March 1989, a flock of Merino ewes due to lamb over 8 weeks in June-July was randomly divided into 2 equal-sized groups. One group was run on a good pasture without supplementation (untrained) and the other was on a poorer pasture and was fed lupin seed in a trail twice weekly at about 400 g/ewe.day. The lupin feeding continued until the youngest lambs were 4 weeks old as the work of Green *et al.* (1984) showed that such a period was effective in training lambs to recognise cereal grain.

On 5 December 1989, wether weaners from each group were randomly allocated from a stratified liveweight list to plots of Gungurru lupin stubble. There were 5 sheep per plot grazed at 15 /ha with 4 plots for each of the trained and untrained treatments. The sheep grazed the plots until 26 February 1990.

The weaners from the untrained treatment were 5 kg heavier than the trained group at the start (mean \pm s.e., 35.6 \pm 0.3 v. 30.7 \pm 0.1 kg), however all animals were in good health. The 2 groups had similar liveweight patterns while on the stubble. Liver biopsies after the experiment indicated that 5 of the 20 sheep in each treatment had moderate to severe liver damage caused by the consumption of lupinosis-causing toxins. However, it appeared that this liver damage occurred after the period shown in Fig. 1 and therefore did not affect our study. Seed counts were taken in 0.1 m² quadrats at 6 fixed sites in each plot at about weekly intervals until 4 January. The patterns of seed loss in the paddocks for the 2 treatments were not significantly different ($P > 0.05$, Fig. 1). Thus, there was no suggestion that training as lambs affected the consumption rate of lupin seed.

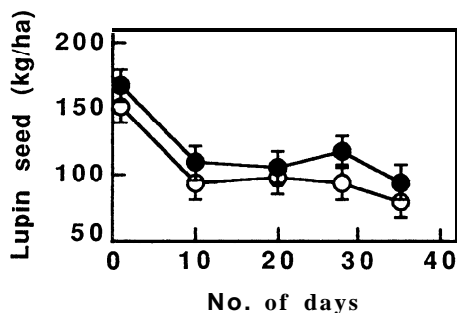


Fig. 1. Disappearance of seed from lupin stubble plots grazed by weaners with (○) or without (●) training to eat lupin seed. Vertical bars indicate s.e.m.

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