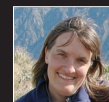


Reducing ripgut brome seed production and carcass damage



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Background

- Ripgut Brome (*Bromus diandrus*) is an annual grass weed of dry, north-facing slopes on high country properties in the South Island.
- Large, sharp seeds (1.5-2.5 cm long) may contaminate wool and carcasses of Merinos, especially lambs.
- Seeds contamination may lead to carcasses being down-graded at the meat-processor.

Objectives

To test whether (i) herbicide application and (ii) shearing at weaning are useful strategies to reduce ripgut brome contamination of wool and carcasses.

Methods

1. Herbicide study

- Effect of different rates and timing of herbicide application on ripgut brome tested on farm in South Canterbury.
- Measurements made of plant cover and seed production

Rates and timing of herbicide application

Ingredient	Tradename	Rate (g a.i./ha)	Date applied	To reduce:
Autumn application				
Glyphosate	Roundup Transorb	370g a.i./ha	19 May	Seedling establishment
Paraquat	Gramoxone	600 g a.i./ha	19 May	Seedling establishment
Spring application				
Glyphosate	Roundup Transorb	370g a.i./ha	4 Oct	Mature plant survival
Haloxyfop	Gallant	60 g a.i./ha	4 Oct	Mature plant survival
Glyphosate (spray topping)	Roundup Transorb	112 g a.i./ha	9 Nov	Seed production
Untreated		nil		

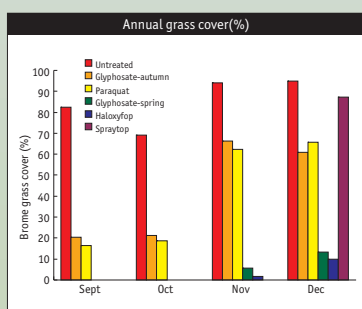
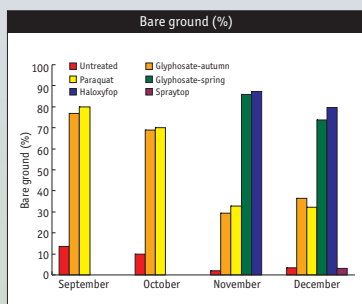
2. Shearing at weaning

- Merino lambs shorn or not shorn at weaning on two farms in Central Otago and two in Marlborough (50 lambs per group per farm).
- Records made of (i) the number of carcasses placed on the detain rail for seed contamination at the meat processor and (ii) number of seeds per carcass.

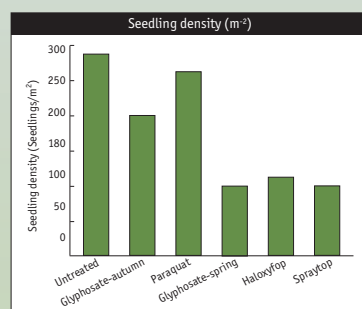
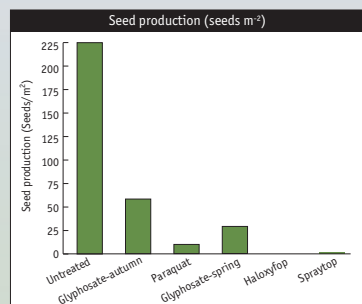
Results

1. Herbicide results

- Spray-topping at 112 g a.i./ha didn't affect annual grass cover or bare ground.
- Other herbicides reduced grass cover but increased bare ground.



- All herbicides reduced seed production in comparison to untreated plots
- Brome species seedling density was reduced the year after spraying in the glyphosate-spring, spray-topping and haloxyfop treatments.



2. Shearing results

- A lower percentage of carcasses were placed on the detain rail due to seed contamination in shorn (33%) than unshorn (41%) sheep.
- For carcasses placed on the detain rail, there was no difference between shorn (4.6) and unshorn (6.6) sheep in the number of seeds/carcass.



Conclusions

- Spray-topping applied over several consecutive years may be a useful strategy to reduce ripgut brome presence in localised areas.
- Shearing lambs at weaning shows some promise in reducing seed contamination in seedy years but is unlikely to lead to complete exclusion of seeds.

Acknowledgements

Sustainable Farming Fund, Meat & Wool NZ, Merino NZ Inc, Lincoln University Research Fund, Struthers Trust, Argyle Trust.