beef+lamb new zealand

FACT SHEET

JANUARY 2020

LUCERNE WINTER WEED CONTROL OPTIONS

With the correct management, lucerne can be a valuable spring and summer forage crop. To maximise crop yields and longevity, lucerne needs to be spelled in autumn to allow root reserves to be replenished, and in winter, weeds need to be controlled. When selecting the right agrichemicals to use, a number of factors need to be taken into account. These include the age of the stand, the grazing pressure it has been subjected to and the weed profile.

Graze out the stand to remove lucerne leaf and if a frost is present, delay application until the frost has thawed. Ideally, once grazed a rain is preferred to remove all dirt from the surface leaf area of the lucerne and weeds to prevent the agrichemical from being deactivated.

B+LNZ RESOURCES

www.knowledgehub.co.nz

Further reading to download:

- Lucerne establishment (spring) weed control options – fact sheet 146
- Summary papers for establishing and managing lucerne
- Podcast – Derrick Moot: Lucerne and other dryland legumes

For hard copies of publications please email: resources@beeflambnz.com

THIS IS A GUIDE ONLY. ALWAYS READ THE LABEL AND SEEK SPECIALIST ADVICE.

STANDARD CONTROL OPTIONS

Paraquat (e.g. Gramoxone)

A fast-acting contact herbicide which desiccates all green plant tissue but is deactivated with soil contact. Paraquat forms the backbone of all winter spray programmes over established lucerne in a tank mix combination with a suitable triazine. Full leaf coverage is essential. Lower water rates normally show up as a spotting effect on the leaves, as the chemical only kills what it touches. Paraquat is a knockdown herbicide, but is non-residual, so is not effective enough on its own for weeds with a taproot or rhizomes.

Adequate water rate and spray coverage are essential with paraquat use along with fresh, clean water. Always apply with 250 L of water per ha and the addition of non-ionic surfactant helps to distribute the herbicide over the leaf surface and to also prevent runoff.

Atrazine

Atrazine has a large weed spectrum of broadleaf weeds and easy to control grasses. A good knockdown and moderate residual activity with a soil half-life of 35-50 days.

Susceptible	
Annual grasses	Storksbill - use higher rate
Shepherd's purse	Subterranean clover

Is the stand at least 1 year old	Yes	Use
Is the lucerne dormant	Yes	Use
Is the lucerne short	Yes	Use
Are the weeds clean and short	Yes	Use
Has the stand been heavily grazed recently	Yes	Don't use – allow to freshen
Are the grasses clumpy/cocksfoot	Yes	Don't use – see Terbuthylazine

Simazine

Better residual control – soil half-life of 27-102 days, but hardly any knockdown ability. Use where there is not a lot of weed cover or on lighter soils.

Susceptible	Mod Susceptible	Resistant
Barley Grass	Cocksfoot	Dandelion
Chickweed	Daisies	Horehound
Poa annua	Ryegrass	Hawksbeard
Shepherd's Purse	Sweet Vernal	Mallow
Soft Brome		Nodding Thistle
Storksbill		

Have plants developed root crowns	Yes	Use
Is the stand at least 1 year old	Yes	Use
Is the lucerne dormant	Yes	Use
Is the lucerne short	Yes	Use
Are the weeds clean & short	Yes	Use
Has the stand been heavily grazed recently	Yes	Don't use – allow to freshen
Is the ground wet or frosty	Yes	Don't use – allow to freshen

Terbuthylazine

Has both root and leaf uptake with a residual soil half-life of 30-60 days. Terbuthylazine has a four week withholding period for grazing. It is the best triazine to use on catsear, dandelion, storksbill, cocksfoot and grasses, but it can affect lucerne so needs to be applied as early in the winter as possible.

Susceptible		
Barley Grass	Dove's Foot	Shepherds Purse
Black Nightshade	Fathen	Storksbill
Browntop	Lotus	Sweet Vernal
Catsear	Poa spp	Thistles
Chickweed	Red Root	Willow Weed
Clovers	Ryegrass	Yorkshire Fog
Cocksfoot	Seedling gorse	

Is the stand at least 2 years old	Yes	Use
Is the lucerne dormant	Yes	Use
Is the lucerne short	Yes	Use
Are the weeds clean & short	Yes	Use
Has the stand been heavily grazed recently is the ground wet or frosty	Yes	Don't use – allow to freshen

Other agrichemical options

Established stands in winter – cyanazine, metribuzin and propyzamide. Established stands with active growth – hexazinone.

ACKNOWLEDGEMENTS

This fact sheet was produced with help from Andrew Miller, Grain & Seed Agronomist from Farmlands, Sandra Taylor, Professor Derrick Moot and Lincoln University.