

FORAGE FOCUS

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PGG Wrightson Seeds

Why should I oversow?

Seed and fertiliser are two of the most important investments farmers can make when they want to increase their farm's productivity and profitability. This is shown by the strong link between above average expenditures on seed and fertiliser, and above average animal performance and profitability.

Oversowing of new and improved species on to hill and high country is an effective means of exploiting the potential for improved animal performance and per hectare performance, which will ultimately impact on a farm's profitability.

On many hill and high country blocks the major component lacking in pastures is clover. Clover plays an integral part in New Zealand pastoral farming, with top pastures having 20-30% clover. In comparison many hill or high country pastures contain as little as 2% clover. Not only are clovers a highly nutritious feed, high in proteins and carbohydrates, but they also provide a source of nitrogen to companion grass species, thereby supporting the pasture system and making up a critical part of any oversowing program.

When should I oversow?

Oversown seeds are very vulnerable to extremes of temperature and moisture availability. Ideally application should be mid-winter to early spring (June to August) depending on the altitude and ground cover. Burning and controlled grazing to remove ground cover is required to allow seed to come into contact with the soil in preparation for spring germination. If ground cover can't be removed, early seed application will be required to allow seed to penetrate the cover via snow, rain, and wind action during the winter period to enable seed to come in contact with the soil.

Preparation for oversowing

To decide on which block to renew, you need to look at which ones will give the best financial return. To calculate this you will need to collate information on soil type, aspect, slope, soil stability, fertiliser history, subdivision and potential increase in carrying capacity.

Areas with a long history of oversowing tend to become brown top dominant with very low levels of legumes. Management problems caused by low herbage ME levels and dense tag (ungrazed seed head residue) prevents efficient utilisation of fertilisers.

To improve the potential return from oversowing a glyphosate program should be introduced at high rates to remove the present herbage cover, or alternatively use a lower rate of glyphosate in combination with grazing management. This will give a degree of control over the existing non-performing species such as browntop and promote legume density via seed introduction and will also allow suppressed legume plants to recover.

Where should I oversow?

As an example in warm dry regions, the areas that give the best return are usually south facing. These areas will have slopes less than 35 degrees and will be well subdivided. In cool moist regions, north or west facing slopes may give a better return.

If finance is limited, areas with both good soil fertility and subdivision should be selected ahead of those needing high capital fertilizer inputs.

What species should I oversow?

There are a number of clover species available to fill a range of conditions, with white clover, caucasian clover and subterranean clover (autumn) all suitable for oversowing.

Another important species for an oversowing program is cocksfoot, with its tolerance of drought, heat and low fertility as well as most insects and pests.

In addition to the introduction of new and improved species, an additional benefit of oversowing is the reintroduction of nitrogen-fixing rhizobia into the soil through the seed treatment process. This is important as rhizobia levels in many hill and high country blocks have dropped considerably over time and without adequate rhizobia in the soil, nitrogen cannot be fixed by the clover efficiently.

Prillcote[®] treated clover and grass seed is specifically formulated for aerial oversowing through a lime-based weight increase, improving the ballistics and providing a more accurate spread of seed.



Steps to successful oversowing.

1. Plan well in advance of the oversowing programme.
2. Soil test potential oversowing blocks. Concentrate on areas with the best fertility first.
3. Remove excess vegetation prior to oversowing in autumn/winter, through hard grazing or consider the use of chemical defoliation with glyphosate or burning.
4. Subdivide into smaller blocks for controlled grazing management.
5. Select appropriate seed cultivars e.g. shady and sunny blocks (refer seed mix recommendations at the back of the Hill & High Country Oversowing brochure).
6. Apply Prillcote® seed and fertiliser to coincide with maximum soil moisture levels and rising soil temperatures i.e. preferably apply June to September. In the North Island autumn sowing during March/April is possible. (Note: Once seed and fertiliser is mixed apply immediately to avoid seed burn).
7. Under North Island conditions, where possible, mob stock the area after oversowing to incorporate the seed into the soil, this may also be required in chemical treated areas. Graze only as required to prevent grasses from shading clovers.
8. Withholding stock under South Island hill and high country for six months (if possible) will allow plants the maximum time to establish and set seed under typical South Island hill country conditions.



Next Steps

If you would like further help with your oversowing this spring, contact Wrightson Seeds on 0800 805 505 for your free copy of the Hill and High Country Oversowing Booklet (see below) or to organize a visit from a Wrightson Seeds representative.

