



NZ Forage Systems Fact Sheet

Lucerne - establishment

Key Points

1. Lucerne is suited to soils with pH over 6.0. Use soil tests and apply lime at least 6 months before sowing.
2. Lucerne is susceptible to aluminium toxicity and waterlogging.
3. Weed control is critical. Autumn spray with herbicides, then follow up with spring herbicide and insecticide, prior to drilling.
4. Lucerne does best with full cultivation prior to sowing into a 'stale', fine, firm, moist seedbed.
5. Do not sow into a paddock which has had lucerne within the last year as lucerne produces a chemical that inhibits its own seedlings.
6. Sow coated seed at 12-15 kg/ha and at 6-12 mm depth.
7. Use seed inoculated with Group A Rhizobium.



This factsheet is one in a series available at www.nzforagesystems.co.nz and published by On-Farm Research, PO Box 1142, Hastings, NZ. While all due care has been taken in preparing this document, On-Farm Research and the sponsors accept no liability. People acting on this information do so at their own risk.

Paddock selection

Lucerne is susceptible to high levels of aluminum, low pH and soil waterlogging. Soils need to have adequate fertility (Olsen P 20-30; Sulphate S 10-12; Mg 8-10) and pH 6.0 - 6.4. Any boron and molybdenum deficiencies must be corrected.

Lucerne should not be re-sown into the same paddock within 12 months as established lucerne produces a chemical that inhibits both the germination and growth of new lucerne seedlings.

When to establish?

- In the North Island, lucerne is best sown during the spring - typically mid August through to early November.
- Early autumn sowings can also be successful, but late autumn sowings can be affected by winter cold, allowing more problem weeds to establish.

Inoculation

- All lucerne seed should be inoculated with Group A *Rhizobium* inoculum for effective nitrogen fixation.
- Ensure inoculated seed is kept chilled in a chiller (5-6°C) before use.

Sowing rates

- Sow coated seed into a fine, firm and moist seedbed at 12 - 15 kg/ha. Lucerne is a small seed so it needs to be sown at a shallow depth (6-12 mm is ideal on most soils, drill slightly deeper on sandy soils) and rolled.
- Fertiliser should be applied at sowing.
- Lucerne can be grown with tall fescue or cocksfoot, although management of these stands is more difficult than a pure stand.

Weed control for establishment

- Paddocks should be free of weeds as weed control is difficult and expensive during the plant establishment phase. Weeds can be reduced by a prior annual crop (barley, maize etc).
- Start spraying in late winter to manage moisture and ensure a complete kill of weeds such as twitch.
- Weeds can be best managed by spraying the paddock 2-3 times over spring, with a broad acting herbicide (e.g. glyphosate) prior to doing a full cultivation. Use of a pre-emergent herbicide can be beneficial and a wide range of pre- and post-emergence chemicals are available.