Lucerne (Alfalfa) is a major forage crop both in New Zealand and around the world. It is suited to irrigated and non irrigated land. Lucerne is a versatile & high yielding perennial crop with excellent forage quality aspects.

## **Cultivar Selection.**

Plant breeders worldwide are using the new rating system for Lucerne growth. Under this new system 1 is the most winter dormant and 10 is the most winter active. You will see this new system used more often as time goes on:

#### Rating 1 to 4:

This type of Lucerne has little or no winter activity and have the potential to last the longest 8 years + if well managed. Usually show excellent disease resistance and normally the best quality as they have the highest leaf to stem ratio.

#### Rating 5 to 7:

This type of Lucerne will normally only produce 5- 10 % of their growth during winter. Have improved disease resistance and if well managed can last between 5 to 7 years.

#### Rating 8 to 10:

This type of Lucerne can produce up to 20% of its growth during winter. Generally more susceptible to disease and therefore normally have a short stand life 4-6 years. Specialty Seeds will be happy to advice you on one of the many commercially available Lucerne cultivars.

### Fertility.

A soil test should be done as soon as the paddock has been identified as a suitable paddock to sow Lucerne into. Use a deeper than normal (7.5 cm) soil testing probe to detect nutrient levels as Lucerne is a deep rooting plant.

The following base fertility levels are the most desirable:

- Soil pH: 6.0 6.4
- Olson P: 20 30
- Sulphate S: 10 12
- Mg: 8 10
- Aluminum: < 15mg/kg
- Sodium: < 6%
- Ca Mg: > 2:1

## Establishment.

Lucerne is best established during the spring months typically mid August through to late November. However early autumn sowings can also be successful. It's important to select a paddock that is free draining and free of perennial weeds (i.e. couch, yarrow, browntop etc.)

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If these are present then they must be controlled prior to drilling your Lucerne stand. Below is a simple plan for establishing Lucerne in dry land situations that if followed correctly can result in a successful long life Lucerne paddock.

#### Step 1: November. One year prior to drilling into Lucerne.

Spray the paddock with 4 litres of Roundup + 40 grams of Granstar. Applying chemical at this time of year is done to ensure there is green top growth to absorb enough chemical to achieve a good kill.

#### Step 2: End of November until Mid February

Leave the paddock in a "fallow" state until early February. Some farmers may see this "fallow" period as a waste of production. However, it could be argued on run out pastures typically selected for a new Lucerne paddock during a typical November until mid February period dry matter production is normally very low and the result will be soil moisture levels enhanced for the establishing barley plants.

Apply a further 2 litres of Roundup per hectare. On or about the 15th of February direct drill the paddock with 100 kilograms of suitable feed barley. Do this regardless of soil moisture conditions as barley seed is big enough to stay in the ground and will germinate when it gets sufficient moisture even if this takes several weeks.

#### Step 3: Mid February until early October.

Use the barley as a multi-graze green feed option during the winter into early spring. In early October spray the paddock with 3 litres of Roundup + 750 mls Lorsban per hectare. Leave for 3-7 days and direct drill your new Lucerne stand.

#### Step 4: 6 - 8 weeks after drilling.

Inspect the paddock for weed control, look at the weeds within the stand and once you have greater than 50% ground cover apply a mix of 2,4-DB, Blast + 500 mls of Chol-P per hectare. *This is a simple but effective way for getting a paddock of Lucerne established from old run out pasture into weed free productive Lucerne.* 

#### \*\* Please note\*\*

Planting Lucerne into a paddock that has had Lucerne in it 12 months prior will not work as Lucerne produces a chemical that inhibits both the germination and growth of same plant types this is called "auto toxicity".

## Fertilisers.

There are specific Lucerne drilling fertilisers available. Lucerne drilling fertiliser should include both molybdenum and boron in them. Rates per hectare will depend on your soil test results.

## Inoculation:

You can purchase your seed either as a bare see or coated. If bare seed is used you must use a specific Lucerne inoculant that is either applied as a wet "slurry" onto the seed soon before drilling or mixed with the seed if using a dry inoculant i.e. Nodulator as recommended by Specialty Seeds . If coated seed products are used insure the inoculant is included in the coat as well as a fungicide and molybdenum to give increased seedling survival.

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# Sowing Rates & Depth.

Seeding rates of 11 - 15 kgs per hectare apply to either bare inoculated or coated seed. As Lucerne is a small seed it is best to sow at a shallow depth - either drilled close to the surface or dropped onto the soil. It should be covered with a roller or very light covering chain or mesh. Lucerne will not survive if drilled at below 25 mm.

# Weed and Pest control at establishment.

It is critical to the success of your Lucerne stand to control all weeds and pests during establishment. There is a wide range of products in today market suitable for this job.

Weed control chemicals used are either pre emerge "Treflan" or similar or post emerge 6 - 8 weeks after sowing a mix of 2,4,DB, Preside and Chol-P for pest control for good results. We recommend that you discuss these options with your local chemical company representative prior to sowing down your new stand.



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