Lucerne establishment & Management

Soil requirements

Lucerne is best grown on free draining sandy-loam soils with a pH greater than 5.2 (CaCl2) or 6.0 (H2O) with the optimum range be (H2O). Lucerne will not tolerate water logging or aluminium toxicity and is best sown into a weed free, well prepared seed bed.

Soil testing and nutrition

Successful lucerne has a requirement for nitrogen, phosphorus and particularly potash for high yielding, higher quality lucerne. Lucer a requirement for zinc, boron, molybdenum and copper. The best nutrition strategy is to soil test and tissue test annually and follow recommendations.

Sowing

Prime should be spring sown. Eureka, Sceptre and Super Seven can be autumn or spring sown. Ideal moist/warm soil conditions are March to May.

Sowing rate and depth

Sow shallow, to a depth of 8mm, into wetted friable heavier soils and no deeper than 20mm on lighter sandy soils. Sow at 3-4kg/ha 400mm rainfall. 4-8kg/ha up to 550mm rainfall. 8-12kg/ha riverflats. 12-20kg/ha under irrigation. Sow cover crops at no more than rate.

Inoculation

Effective nodulation and rhizobia activity is critical for a successful and productive lucerne stand. Lucerne seed should be Agricoted o lime coated and inoculated with the 'AL' strain rhizobium before sowing.

Weed competition

Competition from weeds in the first year can be minimised by controlling weeds 2 or 3 years prior to sowing. The use of herbicides ir stands and growing a vigorous stand will also reduce weed competition.

Undersowing and cover crops

Sowing a cover crop with lucerne will provide some income in the establishment year, allow early grazing and reduce erosion risks or soils. Avoid excessive cover crop competition. Sceptre, Eureka and Super Seven are ideally suited to being undersown because of the vigour.

Insect control

Some systemic insecticide can be used as a seed dressing, however rhizobia bacteria survival is paramount for nitrogen fixation and affected. New lucerne ground will have no naturally occurring 'AL' rhizobia, hence the importance of seed inoculation survival. Best ir is to follow manufacturers insecticide recommendations.

Management of young lucerne

Lucerne takes a full year to develop and needs careful management through the first season. The young stand should be allowed to the first cut or grazing.

Lucerne agronomy

The impetus for lucerne growth comes from the stored energy reserve in the root system. When the leaf area of the shoots reach a t level, the plant becomes photosynthetically self sufficient. As growth continues a surplus of carbohydrates is produced. The excess is translocated from the shoot to the root system to replenish energy reserves that will sustain the next regrowth after cutting or grazi

term persistence, it is essential that the root reserves are fully topped up in late autumn each year so the plant can survive through means allowing the plant to flower strongly before the last autumn or alternatively the first spring cut.

Many growers graze late autumn instead of cutting, as hay quality will be lower and hay curing is more difficult. Short sharp, high int grazing is best.

Rotational grazing

Lucerne requires strict rotational high intensity grazing for two weeks, with a 4-6 week rest period. Set stocking will reduce the life o To optimise stand life, grazing should be closely matched to the ideal hay cutting schedule. That is to graze quickly, no later than the flowering stage and allow the lucerne to regrow to the same stage before grazing again. Traditionally winter dormant lucernes have l resilient under heavy grazing pressure.

Livestock health

The main risk with grazing cattle on a high quality feed such as lucerne, is bloat. Bloat risk can be avoided by careful management, i bloat capsules, selective grazing management and dry feeding.

Cutting for hay

The ideal time to cut is early flowering (10-30% of stems are in flower, 60% budding on crowns), which is around a 28 day cycle thr summer months. Cutting at an immature stage will weaken the life of the established stand whilst hay quality is compromised if the in full flower.

Lucerne based pasture systems & august lambing

Gross margin increases of up to 150% can result from stock grazing on lucerne pastures by increasing stocking rates, changing to au lambing and better pasture utilisation. Lucerne provides the green, high quality feed through summer and autumn and overcomes th protein intake of dry summer feed. Green lucerne stimulates the sheep to eat more of the dry feed giving up to 30% better utilisatio available forage. However, lucerne always performs best as a monoculture.