

“Distinctive, productive and diverse”

- Fine-stemmed leafy lucerne
- Highly productive dormancy 5 lucerne with strong early spring growth
- Tolerant to cold conditions
- Good grazing tolerance
- Excellent disease tolerance

Background

Semi-winter dormant **Titan 5** is an exciting new lucerne variety combining a 50:50 cross between *Medicago sativa* lucerne (purple flower) and *Medicago falcata* (yellow flower) lucerne.

Medicago falcata, regarded as a more resilient species of lucerne, is geographically distributed and originated in the cold and dry areas of Russia, Mongolia, Scandinavia, and China. It tends to be more drought/winter hardy compared to *M. sativa*. Therefore *M. falcata* is often considered as a potential parent in breeding (Riday et al. 2002). It is often referred to as ‘Siberian lucerne’.

The introduction of the unique *M. falcata* material provides the potential to add new diverse genetics to capture traits for persistence, drought tolerance and water use efficiency over traditional *M. sativa* varieties of similar dormancy. It is bred in Australia and is suitable to a range of climatic conditions.

Pest and disease

Titan 5 was bred by the University of Queensland, Australia and was selected from various disease, pest and grazing persistent selections of UQL-1, Sequal HR, Hallmark and Sequal and *Medicago falcata* plants used for crossing which are resistant to cold, drought, grazing and disease.

	<i>Colletotrichum</i> crown rot	<i>Phytophthora</i> root rot	Spotted alfalfa aphid	Blue green aphid
Titan 5	R	R	R	R

Characteristics

The photo below shows the level of hybrid ingression in **Titan 5** between *Medicago sativa* lucerne (purple flower) and *Medicago falcata* lucerne (yellow flower) and the range of subsequent flower colours that come from the cross.

Perenniality	Winter dormancy index	1000 seed weight	Suggested sowing rate (kg/ha)
Perennial	*5	2.0 grams	Pure sward 10-13

*1 -10 winter dormancy scale, with 10 being the most winter active

Key Seasonal Points

Winter

- Hard graze with large mobs in early to mid winter and apply weed control 10 - 14 days later
- Timing of winter cleaning (grazing and weed control) impacts on the speed and amount of early spring growth

Spring

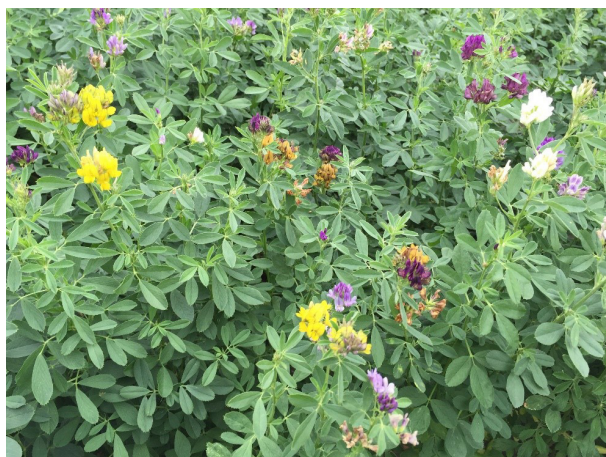
- Start grazing the first paddock of the spring rotation at around 20 cm in height which often is over fewer grazing days (higher start heights often create a rotation that leads to greater stem component and reduced quality and utilisation in the later grazed paddocks)
- Establish a 5 - 6 break or paddock rotation allowing a 35 - 45 day recovery
- As with making all silages there is a significant effect of timing with lucerne. Not all cultivars initiate flowering at the appropriate cutting time in spring. Check for the initiation of basal nodes indicating the plant is ready for its next regrowth phase. This will coincide with a high feed quality period, while leaving too long will elevate stem component and drop silage quality

Summer

- Run a 30-35 day rotation for grazing
- Cut silage focusing on timing to manage quality

Autumn

- Allow a root reserve recharge period of around 50 days at some stage through February to April. This can be done in alternate years if all paddocks cannot be rested. This management has a big effect on persistence and subsequent spring production potential



For more extensive information check the Beef and Lamb website on lucerne best practises that includes Lincoln University research on lucerne management.