PGG Wrightson Seeds

Forage Focus

Stamina® 5

grazing tolerant lucerne (5)

performance bred®

Stamina® 5 is an excellent lucerne for persistence and yield. It is a semi-dormant Lucerne with little winter growth while delivering excellent yield and quality throughout the warmer months.

Cultivar

Legume

Lucerne

Stamina® 5

Superstrike® coated seed recommended

Key Uses

- Ready to graze in 90-120 days
- Outstanding persistence and produces excellent quality hay
- High yielding, especially under dryland conditions
- Good resistance to most lucerne diseases and pests

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Description

Stamina® 5 lucerne is an outstanding semi dormant lucerne that offers flexibility and excellent quality. Stamnia® 5 has stood out during the extreme testing as the best lucerne for grazing tolerance which gives confidence that Stamina® 5 will handle any management regime and come out sound and continue to be a productive stand of lucerne which is what many Australian farmers are looking for; flexibility and great value for money.

About Stamina® Lucernes

The Stamina® lucernes force a rethink on how lucerne is used by farmers in mixed farming zones. The reality is that the demands of sheep grazing, such as set stocking for lengthy periods and hot dry seasons, are not conducive to lucerne persistence. The Stamina lucernes could potentially change that.

Most growers require a longer term lucerne stand that is productive through the warmer months when quality feed is in short supply. In addition they require a lucerne stand that tolerates the rigours of sheep grazing for up to 10 years. Stamina® 5 and Stamina® GT6 fulfil these criteria. Like all lucernes, Stamina® 5 and Stamina® GT6 lucernes will persist and produce better if rotationally grazed. Once established, they tolerate continuous and close grazing better than most other lucerne varieties.

Stamina® lucernes are also good companions for phalaris, winter-active tall fescues and sub and annual clovers, producing a robust year-round legume based pasture.

The Stamina® lucernes have low broad crowns and naturally have high forage quality with fine stems and high leaf/stem ratio. Stamina lucernes are able to maintain this quality by remaining a dense, leafy stand rather than opening up and becoming stalky and weedy. Stamina® lucernes are suitable for grazing, or production of quality hay.

Grazing Management

While Stamina® 5 has gone through a tough protocol for testing for grazing tolerance, it is not recommended that it is treated in this way in a commercial situation. However, what the testing does do is give the farmer confidence that Stamina® 5 will survive better than most other lucernes if treated in less than ideal management for lucerne persistence.

As lucerne relies on stored energy (carbohydrates) in its root system to produce new foliage following grazing, it is recommended that Stamina® 5 be managed in a rotational grazing system. The recommended rotation period is between 30-35 days rest from grazing during the growing period (rotation lengths may need to be extended during the cooler months due to slower growth). When grazing lucerne, it is ideal to graze the plant down to 5cm in height and then have the stock taken out. This type of management will ensure a strong lucerne stand for many years which will make Stamina® 5 a very sound investment.

Breeding

Developing grazing tolerant lucernes for Australia's dryland farms has taken nearly two decades and was a a joint venture project between PGG Wrightson Seeds Australia and CalWest Seeds in the USA. The products were initially developed in the US after a 6 year screening programme in which elite breeding lines and successful commercial varieties were set stocked by both sheep and beef cattle for a period of 6-7 months per year. Paddocks were maintained at a constant vegetative height of 2-5cm throughout the grazing periods.

Further screening was conducted in Australia by PGG Wrightson Seeds who evaluated 24 advanced lines in trials that ran for 7 years. Plots were grazed for periods of 10 months at a stocking rate of 40 sheep/ha.

Lucerne varieties bearing the Stamina® designation were selected as 'best of the best' in these ultra-rigorous evaluations. Australian farmers are encouraged to ask other seed companies that claim their lucerne varieties are grazing tolerant were they developed. Farmers are advised to plant the best, proven grazing tolerant (GT) varieties from PGG Wrightson Seeds.

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Trial data: Ballarat Grazing Lucerne Trial 2006

Table 1: The table below shows the percentage of ground cover of Lucerne after 10 months of continuous grazing at a grazing pressure of 40 DSE (Dry Sheep Equivalent) per Ha.

Table 2: The table below shows the percentage of ground cover of the same trial site 6 months after the measurements were taken shown in table 1.

Table 1

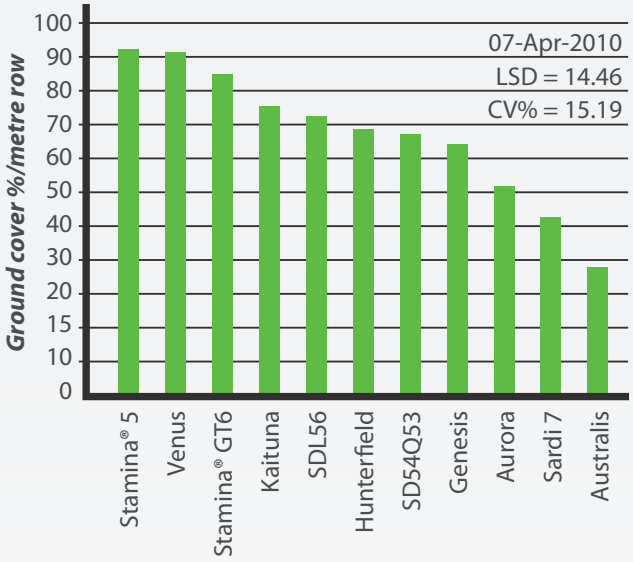
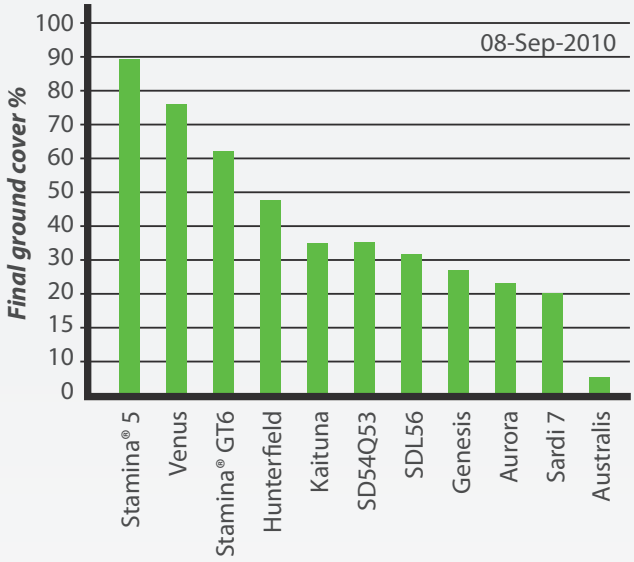


Table 2



What this is showing is the continuing rate of Lucerne decline after grazing pressure has been removed under an intensive grazing system and how the grazing tolerant variety of Stamina® 5 is able to withstand the pressure of continuous grazing.

Legend

Product	Marketed by
Stamina® 5	PGG Wrightson Seeds
Venus	Heritage Seeds
Stamina® GT6	PGG Wrightson Seeds
Hunterfield	Heritage Seeds
Kaituna	PGG Wrightson Seeds
SD54Q53	Seed Distributors
SDL56	Seed Distributors
Genesis	Heritage Seeds
Aurora	Common variety
Sardi 7	Heritage Seeds
Australis	Common variety

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Pests and disease tolerance

Stamina® 5 is susceptible to a wide range of pests just like any other lucerne variety. Red Legged Earth Mite, Lucerne Flea and some aphids can have devastating effects on lucerne at any stage of its life if not monitored and controlled. Regular monitoring is very important and if pests are present, speak to your local retail agronomist to find out the best insecticide and use for the pest identified. When sowing lucerne, it is highly recommended to have Stamina® 5 Superstrike® treated which will give some level of protection for the first 6 weeks after sowing.

Pest/Disease ratings:

Stamina® 5	
Spotted Alfalfa Aphid	Highly Resistant
Blue Green Aphid	Resistant
Phytophthora Root Rot	Resistant
Anthracnose	Highly Resistant
Stem Nematode	Highly Resistant
Bacterial Wilt	Highly Resistant

High Resistance..... >51%
Low Resistance 6-14%
Resistant..... 31-50%
Susceptible 0-5%
Moderate Resistance.... 15-30%

Sowing establishment

Stamina® 5 like all other lucerne is small seeded, so therefore it is important to ensure that the sowing of Stamina® 5 is done correctly to ensure the best results for establishment. There are some key fundamentals when sowing lucerne including seedbed preparation, weed control, sowing depth and sowing technique. Following these key steps will help achieve a good establishment of lucerne.

Seedbed preparation – preparing the seed bed takes into consideration the soil type and cultivation of the soil to ensure the soil is fine. This will aid the soil to seed contact at the time of sowing as well as good supporting moisture infiltration around the seed either after a rainfall event or irrigation.

Poor weed control is one of the most common issues that can lead to poor lucerne establishment. Weed control must start the year prior to sowing the lucerne to ensure adequate time and opportunity to control any weeds that are present in the paddock. This should also reduce the need for post emergent herbicides to be used in the young lucerne crop as this can retard growth.

The sowing depth needs to be managed as lucerne is a small seed and therefore only needs to be sown at no more the 15mm deep. This will enable the lucerne to germinate and the seedling to rise above the soil to begin photosynthesis.

The sowing technique is the method of actually getting the seed into the soil. With so many different options for sowing equipment, it is important to understand the impact this can have when sowing lucerne. Accuracy of sowing rate, equipment condition (shears, knife points or discs) and final compaction (press wheels, harrows or tyre roller) are all important when looking to successfully establish lucerne.

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Fast Facts - Stamina® 5

Class of Stock	Beef, Sheep, Dairy	**Treatment recommended**	Superstrike®
Sowing Rates	8-25kg/ha	**Flower Heading Dates**	N/A
When will feed be available	Spring, Summer and Autumn	**Ploidy**	N/A
How can it be used	Grazing, Silage, Hay	**Endophyte**	N/A
Rainfall guide	Minimum 450mm rainfall per annum unless irrigated		

Learning

For more information on Stamina® 5 the following is available from the Stamina® 5 page at **pggwrightsonseeds.com.au**

Research paper
Evaluation of grazing tolerant Lucerne

Forage Focus
Understanding Lucerne

Icon Legend

The following icons have been developed to highlight the individual on-farm uses of PGG Wrightson Seeds products. When icons appear in blue in the listings they are relevant to the product.

Lets Grow Together

Planning your forage and seed requirements in advance can make a big difference to your productivity. For over 75 years PGG Wrightson Seeds have been working with farmers to get the balance right.
To discuss your growth plans call your Pasture Specialist now on 1800 619 910.

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