

SARDI-Grazer Lucerne

Lucerne



325mm+



5.8–8.0



Deep or well drained



AL or **AgriCote**



PBR

Segment

- Dual purpose grazing and/or hay where grazing duration will at times be greater than 30 days
- Mixed cropping systems where lax grazing and persistence is required

SARDI-Grazer is an ideal fit for:

- Wool, prime lamb and beef production areas with medium to high rainfall, where mob sizes and numbers prevent the use of strict rotational grazing.
- Cropping rotations where large paddocks restrict the use of rotational grazing.
- A long-term lucerne stand; where a permanent pasture with volunteer grasses or mixtures with phalaris, cocksfoot or tall fescue is required.
- Any system where a simple two paddock rotation system is required for managing livestock.

SARDI-Grazer was developed through a GRDC funded project aimed at increasing the persistence of lucerne in mixed grazing/cropping systems, where large paddocks limit the use of rotational grazing. It has proven to be the variety of choice across all enterprises where less than ideal grazing management occurs.

SARDI-Grazer is well suited to permanent pastures systems in the medium to high rainfall areas, where long periods of continuous grazing (over four weeks) by sheep or cattle is common practice.

Key features

- Market leading grazing tolerant lucerne variety
- Persists under periods of set stocking up to two months once established
- Winter activity rating 6 (6.5 effectively)
- Requires minimal rotational grazing management
- Broadly adapted to a variety of farming systems

Key benefits

- Persistence 8–10 years+
- Exceptional persistence across a range of environments from low to high rainfall, dryland and irrigation
- Well suited to mixed swards with perennial grasses such as winter active tall fescue, cocksfoot or phalaris



Agronomy and management

SARDI-Grazer is a winter active cultivar that has been bred to withstand spells of continuous grazing of up to two months. To gain sound establishment the crop should only be lightly grazed in the first year, as per all lucerne varieties. Once established, it can be grazed in a two paddock rotation with 6–8 weeks grazing followed by 6–8 weeks recovery. The recovery period is critical for recharging energy reserves of the plant which will maintain excellent levels of production and persistence.

SARDI Grazer can be used on grazing enterprises as it shows exceptional persistence under management practices employed on commercial farms in New South Wales, Victoria and South Australia.

Lucerne may be suitable for planting in soils with lower pH levels, provided exchangeable Aluminium levels are very low. A reliable soil test and advice from an agronomist is strongly recommended.



SARDI-Grazer vs a winter active control after 18 months of continuous grazing at Turretfield SA.

Breeding history

Some 120 lucerne varieties and breeding lines, many of which had previously undergone two cycles of selection under continuous sheep grazing, were evaluated in a continuous grazing trial at Roseworthy SA. After two years, surviving plants were dug up and replanted next to aphid and disease resistant selections for open pollination. The harvested seed resulted in the formation of 11 breeding lines that were sown along with commercial comparators in two parallel continuous grazing trials: one at Turretfield, SA on a clay loamy with gravel on the surface and another in Katanning WA on an acidic light sandy soil more conducive to physical disturbance from the trampling of sheep.

Following nearly two years of continuous grazing by sheep, the breeding lines were found to maintain substantially higher plant densities than commercial varieties. Individual plants were dug from the best lines at Katanning and Turretfield and further evaluated based on their agronomic performance and yield potential. The final parental plants used to develop SARDI-Grazer were selected based on resistance to aphids and diseases (BGA, SAA, PRR, and Anth), herbage yield, herbage quality (bushiness and fine stems) and winter activity rating.

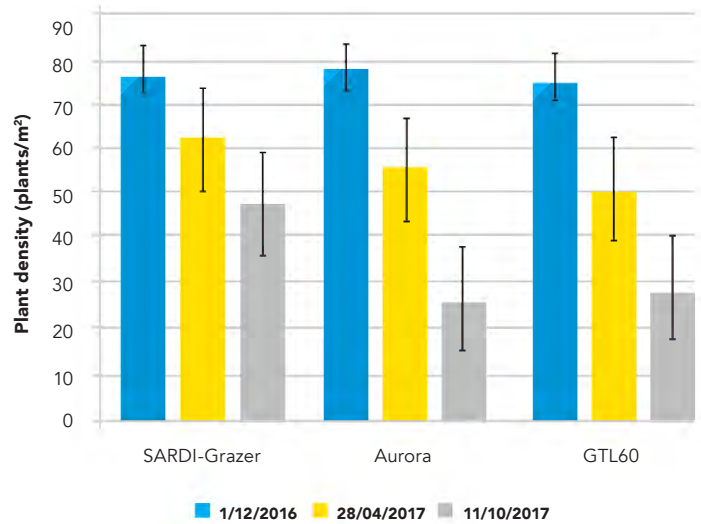
Grazing tolerance trial

Sown: 2015

Sowing rate: 10kg/ha

- Trial was allowed to fully establish and flower pre-grazing.
- Prior to the commencement of grazing, a plant count was taken as a starting density (1/12/16).
- The trial was grazed for 116 days constantly during the summer and autumn period of 2016/17. The trial was managed in accordance with the NAAIC (North American Alfalfa Improvement Conference) which is an internationally recognised trial protocol for determining a variety's grazing tolerance.
- Sheep were chosen over cattle to increase pressure through closer grazing.
- At the end of this period another plant count was taken (28/4/17). This marked the end of the NAAIC trial period.
- The trial was continued immediately, and sheep were grazed on the trial for a further 74 days (total of 190 days). At the end of this period a final plant count was taken (11/10/17).

2016/17 Lucerne grazing tolerance trial - Howlong NSW



Disease/pest resistance

SARDI-Grazer is highly resistant (HR) to spotted alfalfa aphid (*Therioaphis trifolii*) and blue-green aliphid (*Acyrtosiphon kondoi*).

As with other lucerne varieties, SARDI-Grazer is susceptible to damage from red legged earth mite (*Halotydeus destructor*) and control measures need to take place prior to seeding or soon after germination. AgriCote™ seed will aid establishment in these circumstances.

Spotted alfalfa aphid	Blue green aphid	Phytophthora root rot	Anthraco nose	Stem nematode
High resistant	High resistant	Resistant	Resistant	Resistant



Plot density

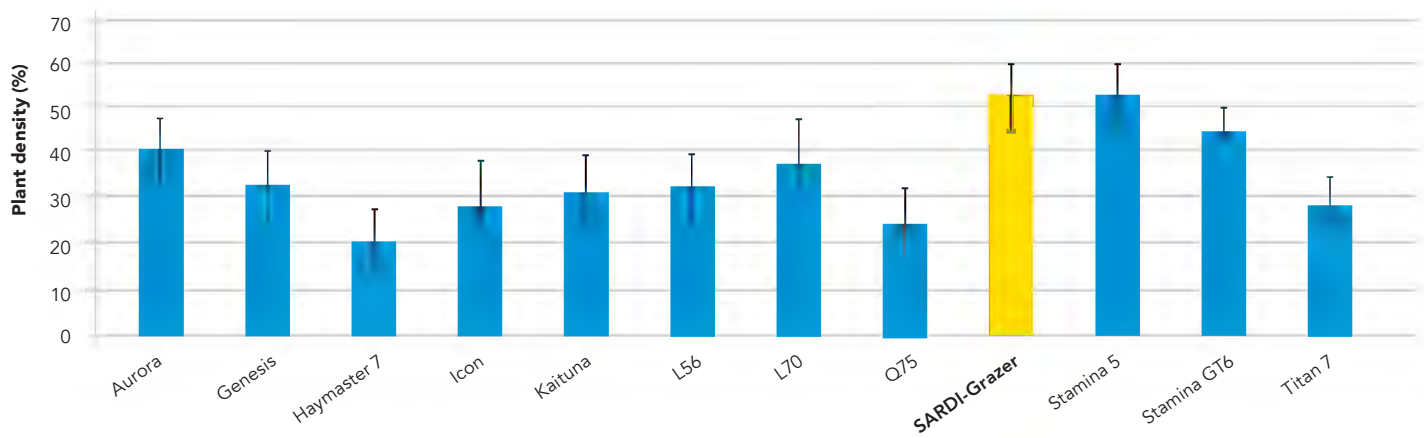


Figure: Plot density (%) of SARDI-Grazer versus competitor cultivars over 9 sites (Coleraine VIC 2010, Hamilton VIC 2012, Coolac NSW 2009, Culcairn NSW 2009, Lockhart NSW 2010, Tintinara NSW 2010, Avoca VIC 2011, Bendigo VIC 2009, Timboon VIC 2009).



Grow with Confidence

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