



Superstrike® coated seed recommended

USES:



BEEF DAIRY SHEEP HAY SILAGE



6-10kg/ha

SOWING RATE



400mm pa

RAINFALL / IRRIGATION

Wilpena is a dual purpose variety that is recommended for producers who are looking for intensive forage operations, either for feedlot (cut and carry) or as conserved silage.

- Ready to graze in 90-120 days
- Has the ability to grow large amounts of high quality feed
- Long day dormancy means that it has lower water requirements during summer months
- Can be cut for silage or hay
- Excellent production in autumn (2nd year) and spring

Description

Sulla (*Hedysarum cornarium*) is a widely used perennial forage legume in central and western Mediterranean countries. It has been used commercially in North America for the past 30 years. While an individual plant can live for up to two years, sulla can easily regenerate from seed which allows for a paddock of sulla to continue to produce for a number of years.

Sulla is best suited to similar soil types to those ideal for lucerne; neutral to slightly alkaline with a pH range of 5.5 - 8.5 (CaCl₂). It is adapted to alkaline calcareous soils in South Australia, Northern New South Wales and Southern Queensland. Waterlogging will result in plant death and therefore reduce the life of a sulla stand.

Wilpena sulla is an exciting new biennial forage legume suited to neutral-alkaline soils, ideal for short pasture rotations in both mixed farming and livestock production systems.

Wilpena has a high yield potential and is highly palatable, with excellent forage quality leading to outstanding animal performance. Wilpena is non-bloating and has reputed anthelmintic qualities which may reduce worm burdens. It also has the potential to fix high levels of nitrogen.

Wilpena sulla is yet to be truly tested in marginal areas of Australia. In preliminary evaluation trials conducted in South Australia and Northern New South Wales, there are indications that it can produce in excess of 20tDM/ha over two years in a low to medium rainfall environments (400mm - 550mm) given favourable conditions. In Queensland, Wilpena sulla has produced between 8-12tDM/ha in the first year in moderately good rainfall conditions.

Description (continued)

Wilpena sulla is a branching, erect plant that has the potential to grow as high as 1.6m, but will commonly grow between 0.3m to 1m.

Wilpena has a deep branching taproot that allows the plant to source moisture and nutrients from deep within the soil profile. The root system also gives Wilpena an extended growth period during late spring and early summer prior to the plant shutting down and going dormant during the hot summer months.

Wilpena sulla is recommended as a specialist crop in both cropping rotations and/or pasture systems. In terms of productivity, it is more productive than persian clover or red clover and allows for a shorter rotation than lucerne.

The leaves are similar to a fern-like structure with between 5-15 pairs of oval to round leaflets and a singular leaf at the end.

The stems of the plant are thick and succulent through the growing period. However, once flowering commences, the stems become woody and this continues until the plant dries off and goes into full dormancy.

Crop Management

Preparation is critical with regards to weed management prior to sowing Wilpena due to no registered chemical options. Reduce the weed seed bank to give Wilpena the best opportunity to establish. Wilpena doesn't compete well against weeds in the first year of establishment and if weeds are not addressed, then the results may be less than expected.

Once established Wilpena competes very well for moisture and nutrients and with potential yields being so high, ensure good soil nutrition levels. Monitor throughout the season for any pests and diseases that may be having an effect on the Wilpena.

If there is a desire to have a Wilpena stand for longer than 2 years, then allow it to flower, set seed and mature. Wilpena has an ability to produce good levels of seed which can germinate in the autumn and therefore offer greater longevity.

The introduction of rhizobia when sowing Wilpena is very important to the success of growing Wilpena as well as the nodulation throughout the growing season. Timing is critical to getting this right and once introduced, the rhizobia has proven to thrive in many Australian soils; pH dependent. Given the high dry matter production of Wilpena, the soil nitrogen levels are potentially very high and extremely valuable given the cost of chemical based nitrogen fertilisers. While the fixed nitrogen is present in the soil, it is released slowly over a 2-4 year period.

Grazing Management

Wilpena has been bred to be more upright in its growth habit and as a result is best suited to produce high quality forage; either silage or hay. Wilpena can be grazed, but correct management needs to be implemented to get the most out of Wilpena as well as ensuring stand survival.

Wilpena is best managed with rotational grazing. Grazing intervals will vary from 35 to 85 days depending on moisture, day length and soil temperature. It is advisable that in the first year, Wilpena should be lightly grazed to ensure good root establishment and second year plant density.

Avoid grazing when the soil is wet, especially with cattle so as to minimize hoof damage and pugging. Allow regrowth of at least 30-40cm (12-16 inches) before grazing again with both cattle and sheep. Do not graze below 10cm as this will slow regrowth potential down considerably.

It is well documented that pasture species which produce high levels of protein cause bloat in cattle. Though Wilpena is high in protein, it produces condensed tannins which assist in the prevention of bloat in cattle.

Wilpena can be successfully ensiled or made into hay, producing high quality, highly digestible feed. Where Wilpena is the main component, lactic acid content may increase, reducing the ammonia concentration and therefore lowering the pH resulting in high quality silage.

For optimum hay quality, Wilpena should be cut prior to peak flowering (aim for 10% flowering) with a mower conditioner. This is critical due to the thick nature of the stems that need to be conditioned so as to assist with the drying process. The height for cutting the Wilpena will also aid in the drying process so as to allow air flow around the entire windrow. Ideal height for cutting off the ground is between 15-30cm. Growers need to keep any raking to a minimum so as to keep the leaf of the plant, otherwise the hay result will be primarily stem which lowers the quality.

Wilpena flowering

| Image 1



Sowing and Establishment

Prepare a fine, firm weed free seed-bed prior to sowing which is important for all small seeded species. Wilpena sulla can be sown in early autumn, late winter or early spring. The use of a roller or press wheels ensures good seed to soil contact and moisture retention is optimised.

Wilpena should be coated with Superstrike® and be sown at between 6-10kg/ha and seed drilled no deeper than 10mm. A target establishment rate is 25 plants per m2.

Wilpena is best sown as a pure legume stand as it doesn't compete very well against most other species. The key to success for sowing Wilpena with companion species is to establish it in the first season and then look at a companion species such as clovers in the second year.

| Image 2



Seedling Wilpena with the first true fern-like leaves emerging

| Image 3



Seedling Wilpena

Pests and Disease Tolerance

There is very limited information about what pests and diseases that will cause any issues to Wilpena. As more Wilpena is grown, then the level of knowledge will increase over time. What has been evident through trials and glasshouse work is that Wilpena is resistant to clover scorch (*Kabatiella caulivora*), highly tolerant to aphids and moderately tolerant of Red Legged Earth Mite and Lucerne Flea. *Heliothis* caterpillars can dramatically reduce yield during mid to late spring.

Wilpena is susceptible to fungal diseases caused by *Rhizoctonia solani*, *sclerotinum rolfsii* and to a lesser extent *phytophthora medicagnis*. Typical *rhizoctonia* patches have been observed in paddock situations in South Australia, Queensland and northern New South Wales. Other diseases such as powdery mildew and black spot have also been observed in New South Wales and Western Australia.

The actual impact and potential loss converted into financial loss is not yet known and won't be until Wilpena areas increase.

Wilpena - Fast Facts

Class of Stock	Dairy, Beef, Sheep	Treatment recommended	Superstrike®
Sowing Rates	6-10kg/ha	Flower Heading Dates	n/a
When will feed be available	Autumn, Winter, Spring	Ploidy	n/a
How can it be used	Hay, Silage	Endophyte	n/a
Rainfall guide	Minimum 400mm rainfall per annum unless irrigated		

LET'S 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 Sales Agronomist now.

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