Prolific

Persian Clover

Trifolium resupinatum var. resupinatum

INTERNATIONAL

KEY FEATURES

- Early Maturing - 67 to 124 days to flowering
- High Hard Seed Level - Excellent Regeneration
- Excellent Herbage Production
- Perfect companion in blends with other legumes such as sub clover, arrowleaf and medics.
- Tolerates Waterlogging and Mild Soil Salinity
- Well Adapted to a range of Soil Types (prefers heavy alkaline)

PROLIFIC (Trifolium resupinatum var. resupinatum) is a very hard seeded Persian Clover that has a semi-prostrate growth habit and demonstrates early season maturity and should be considered for low rainfall zones.

An extremely palatable and highly digestible feed (16-21% crude protein), PROLIFIC is well suited to hay, grazing or silage production, and is especially successful in pasture mixes with ryegrass or oats targeted at increasing dry matter production.

PROLIFIC will also provide an effective disease break in cropping rotations and has the ability to fix high levels of soil nitrogen, whilst also assisting in the management of unwanted weeds including those that are herbicide resistant.

Growing Conditions

Soil Type:
Suited to most soil types from sandy loams through to heavy clay soils

Sowing Rate:
Mixes 2 - 4kg/ha
Pure 4 - 6kg/ha Dryland
Pure 6 - 10kg/ha Irrigated

Rainfall:
300mm+

pH:
5.5 - 8.5 ($CaCl_2$)

Inoculant:
Group C Rhizobium

Disease Tolerance/ Resistance

Highly tolerant to clover scorch (Kabatiella caulivora) and is resistant to sub clover root rot (Phytophthora clandestina). Can be susceptible to rust attack (Uromyces trifolii-repentis).

Management

Due to its prostate growth habit, Prolific is very well suited to grazing, as well as hay and silage production.

Plants may be grazed during the winter/spring period or left to make hay or silage during the spring. During the establishment phase, plants should be grazed to control weeds, however stock should be removed during flowering times. Once stand is established, moderate grazing may occur through the flowering period.

Prolific is hard seeded and thus won't require re-sowing should appropriate management be undertaken. Stands should not be grazed during the flowering period to maximise seed set in the year of sowing, ensuring regeneration and long-term persistence. Where stands are established, light grazing may continue during the flowering period but should be avoided to ensure persistence. Following seed set completion, plant residues should be either removed or grazed during late summer to promote better seeding regeneration.

Persian Clover Agronomic Information

Scientific name(s)

Trifolium resupinatum var. resupinatum

Strengths

- High nutritive value
- Extremely high production potential
- Multi cut forage crop
- Tolerant of seasonal flooding
- Some tolerance of salinity
- Free of oestrogen risks

Limitations

- Very good regeneration

Plant characteristics

Plant: erect, annual. Up to 750 mm height.

Stems: up to 35 mm diameter, hollow, soft.

Leaves: trifoliate, up to 25 mm long, plain, strongly veined, oval-shaped leaflets with serrated margins.

Flowers: pink-violet flowers. Many-flowered cluster and mature in axillary, white, spherical, woolly seedheads to 15 mm diameter on long stalks.

Pods: membranous, dehiscing at thickened sutures; one seeded.

Seeds: ~1 mm long, ovoid, various colours (brown, olive, purple); ~1.5 million/kg.

Pasture type and use

A winter-growing, annual capable of excellent winter and spring growth. Suited to dryland marginal areas. A valuable fodder crop.

Where it grows

Rainfall

> 300mm+ in winter/spring rainfall zone for dryland use. Also used with irrigation. Tolerates water with up to 1500 uS/cm on low salinity soils with adequate drainage.

Soils

Suited to clay soils, pH 5.5-8.5 (CaCl2). Tolerant of severe waterlogging and mildly saline soil.

Temperature

Good heat tolerance. Quite tolerant of frost and cold but slow growing at low temperatures.

Establishment

Companion species

Grasses: Annual Italian ryegrass

Legumes: balansa clover, arrowleaf clover, sub clover, medics

Sowing/planting rates as single species

4-10 kg/ha; broadcast onto a finely worked, weed free seed bed and cover lightly by a roller or drill seed at 5 mm depth into a clean, finely worked seedbed. High seed rate boosts winter yield and reduces weed invasion.

Sowing/planting rates in mixtures

2 - 4 kg/ha.

Sowing time

February (if irrigating) to April.

Inoculation

Group C.

Fertiliser

Apply ~20-30 kg P/ha annually and correct any nutrient deficiencies, especially K, Mo, Cu, S.

Management

Maintenance fertiliser

For optimum growth Olsen soil P (0-10 cm depth) > 15.

Grazing/cutting

Suited to winter grazing. Set residues at 2-3 cm (winter) and 4-5 cm (spring) to avoid over grazing. Rotationally graze during the cool season when 15-20 cm tall; this stimulates tillering. If sown with grass, must graze late winter/early spring to allow clover to contribute later.

Suited to hay/silage production; most valuable aftermath. Stems are nutritious but slow to dry; use conditioner to speed up drying. Fast regrowth facilitates second cut; remove bales promptly - hay quite susceptible to rain damage.

Ability to spread

Excellent recruitment; produce high levels of hard seed.

Weed potential

Medium. Having a high hard seed level, the following crop is likely to see regenerated clover in stand. Tolerant to false breaks.

Major pests

Red-legged earth mite and lucerne flea need to be identified and controlled rapidly during establishment.

Major diseases

Some cultivars susceptible to leaf and stem rust (Uromyces trifolii-repentis) and clover rot (Sclerotinia trifoliorum)

Herbicide susceptibility

Glyphosate. Damaged by many broad-leaf herbicides.

Animal production

Feeding value

High (high soluble carbohydrate, high protein content & low NDF content). Retains excellent feeding value as dry standing hay during dry weather.

Palatability

Palatable.

Production potential

Good winter, spring, summer.

Livestock disorders/toxicity

Low isoflavone content - no risk to breeding livestock. Low risk of bloat. Can be associated with photosensitization.

Source: Pastures Australia, Departments of Agriculture and Barenbrug

Australian Government
Rural Industries Research and Development Corporation
RIRDC
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Contact us:

Craig Myall	Managing Director	craig@synergyseeds.com.au	+61 409 392 320
Nathan Smith	Business Sales & Supply Manager	nathan@synergyseeds.com.au	+61 487 655 220

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