Palestine

Strawberry Clover

Trifolium fragiferum

INTERNATIONAL

KEY FEATURES

- Large leaved, deep rooted perennial clover
- Late season maturity
- Prostrate growth habit
- Good spring and summer production
- Suited to continuous grazing
- Tolerant of waterlogging and alkaline soil

PALESTINE is a large leaved, deep rooted perennial legume that demonstrates a prostate growth habit. Adapted to a wide range of soil types, PALESTINE will provide good levels of forage production in spring, summer and autumn, however growth during the winter period is low. Whilst not as productive as some other clover species, PALESTINE is one of the best clovers to tolerate waterlogging, saline and alkaline environments, and is therefore an excellent alternative crop for these conditions.

Growing Conditions

Soil Type:
Best suited to a wide range of medium textured, sandy loam to heavy clay soil types. Requires moderate to good soil fertility and can tolerate short periods of waterlogging and moderately saline soil.

Sowing Rate:
Mixes 0.5- 1.0kg/ha
Pure 1 -2kg/ha Dryland

Rainfall:
500mm+

pH: 6.0 – 8.5 ($CaCl_2$). Tolerates down to pH 4.8 ($CaCl_2$)

Inoculant:
Group B Rhizobium

Pest Resistance

Susceptible to attack from red legged earth mite (Halotydens destructor), and blue oat mite (Penthaleus major). Control of these insects is paramount at the early seedling stage and ongoing monitoring and associated pest management is essential.

Management

Palestine can withstand heavy continuous grazing once plants are established and the development of strong runners has occurred. Newly sown pastures must not be overgrazed too early to ensure plants are not extracted from the ground. During the establishment year, plants should be allowed to flower and set seed to ensure a good seed bank is created. Being a hard-seeded variety, Palestine will build up a strong seed reserve, enhancing long-term persistence if managed correctly.

Timing of Sowing

The optimum time for sowing is early to late autumn following rainfall. Sow at a depth of 1.0-1.5cm into a moist seedbed free of broadleaf and grass weeds.

Strawberry Clover Agronomic Information

Scientific name *Trifolium fragiferum*

Strengths

- High nutritive value and productive through spring and summer.
- Very grazing-tolerant and persistent
- Drought and water-logging tolerant; tolerant of salinity
- Free of oestrogen risks

Limitations

- Slow to establish, poor winter growth

Plant characteristics

Plant: densely stoloniferous, prostrate perennial. Rooting from nodes. Deep rooted; grows to 250 mm.

Stems: slender, branched.

Leaves: size varies with cultivar. Plain (minority marked), hairless, trifoliate, glabrous, pubescent lower lamina, nerves parallel and conspicuous at margins. Leaflets 9-15 mm wide and 14-22 mm long.

Flowerhead: numerous; at maturity its creamy bladder shape resembles a strawberry fruit - with brown bits (dried petals).

Flowers: densely clustered, pink, oval/cone shaped, ~6 mm long, numerous, cream. Peduncles 100-220 mm long.

Pods: small, ovoid contain 1-2 seeds.

Seeds: truncate, lemon/brown; ~800,000/kg; high proportion of hard seed

Pasture type and use

A perennial providing excellent summer feed value where moisture available.

Where it grows

Rainfall

Usually used in areas with >650 mm/yr; also used in lower rainfall (>500 mm) on low lying saline land.

Soils

Tolerant of waterlogging and moderately saline soil. Best on neutral to alkaline soil, pH 6-8. Tolerates pH (CaCl2) 4.8 and may respond to liming on acid soils. Persists and provides valuable summer green pick in isolated crab holes/Gilgai on basalt plains.

Temperature

Wide adaption to temperature; good heat tolerance.

Establishment

Companion species

Grasses: phalaris, tall fescue, perennial ryegrass, tall wheat grass, puccinella.

Legumes: persian, balansa, white clovers.

Sowing/planting rates as single species

1 - 2 kg/ha; sow scarified seed at 15-20 mm into a clean, finely worked seed bed and roll.

Sowing/planting rates in mixtures

0.5 - 1.0 kg/ha.

Sowing time

Early autumn or spring; low seedling vigour.

Inoculation

Group B.

Fertiliser

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

Management

Maintenance fertiliser

For optimum growth Olsen soil P > 15.

Grazing/cutting

Once established, is very persistent on suitable soils. Tolerates heavy grazing pressure.

Ability to spread

Seed spread by water, birds and livestock.

Weed potential

Low; poor seedling vigour makes establishment difficult where other species established.

Major pests

Relatively tolerant compared to most domesticated clovers.

Major diseases

No serious limitations.

Herbicide susceptibility

Glyphosate. Damaged by most broad-leaf herbicides.

Animal production

Feeding value

High protein content; high digestibility.

Palatability

Palatable.

Production potential

Good autumn, winter, spring.

Livestock disorders/toxicity

Low isoflavone content - no risk to breeding livestock. May cause bloat in cattle; may increase frequency of urinary calculi in sheep.

Source: Pastures Australia

Australian Government
Rural Industries Research and Development Corporation
RIRDC
www.rirdc.gov.au

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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