Moa

Persian Clover

(Trifolium resupinatum var. majus)

Exclusive to Synergy Seeds

INTERNATIONAL

KEY FEATURES

- Soft seeded variety
- Late maturing – 156 to 173 days to flowering
- Excellent herbage production
- Erect/upright growth habit
- Demonstrates improved persistence
- Well adapted to a range of soil types

MOA (Trifolium resupinatum var. majus) is a soft seeded Persian Clover that is a tall-erect, aerial seeding, annual type with thick, long and soft stems, which demonstrates late season maturity and should be considered for zones with a long growing season.

A very palatable and highly digestible feed (20-23% crude protein), MOA is well suited to hay, grazing or silage production. MOA is especially successful in pasture mixes with annual grasses and forage cereals to bolster feed quality and increase dry matter production.

MOA has produced over 25% more forage production than Lightning in 2015/16 summer trials in NZ.

MOA 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

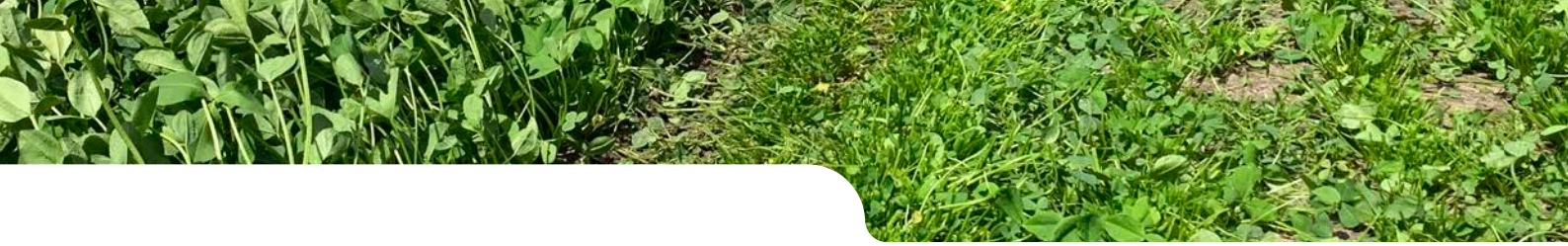
Soil Type:
Suited to most soil types from sandy loams through to heavy clay soils

Sowing Rate:
Mixes 2 - 4kg/ha
Dryland 6 – 10kg/ha
High Rainfall/Irrigation 10 – 15kg/ha

Rainfall:
450mm+

pH:
5.5 - 8.5 ($CaCl_2$)

Inoculant:
Group C Rhizobium



Pest Resistance

Susceptible to attack from red-legged earth mite (Halotydens destructor) and lucerne flea (Sminthurus viridis).

Timing of Sowing

The optimum time for sowing is early to late autumn following rainfall. Sow at a depth of 0.5-1.5cm into a moist seedbed free of broadleaf and grass weeds.

Management

Moa is a soft seeded variety that can be grown as a pure sward but is often used as a companion species to forage cereals or annual ryegrass to increase dry matter yields and forage quality. Due to its erect/upright growth habit, Moa is very well suited to hay and silage production. As a late flowering variety, Moa produces higher quality, vegetative feed longer into the growing season, a key advantage in higher summer rainfall/irrigation areas.

Persian Clover Agronomic Information

Scientific name(s)

Trifolium resupinatum L. var. majus Boiss.

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

- Poor regeneration

Plant description

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 seasonal irrigation. A valuable fodder crop.

Where it grows

Rainfall

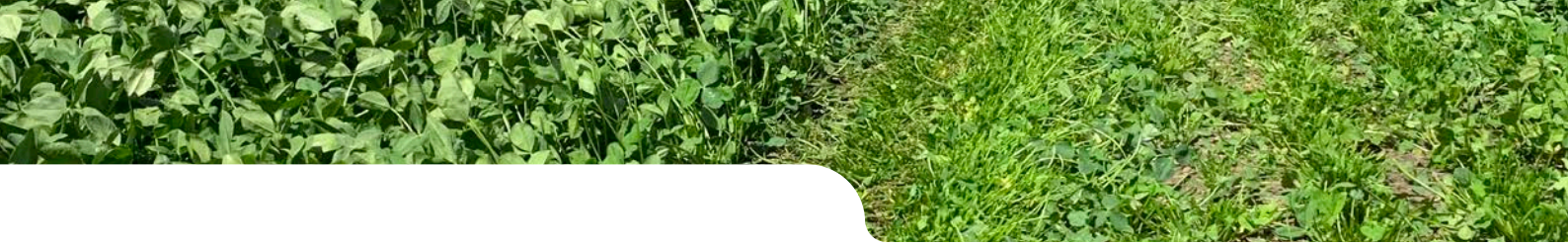
> 450 mm in winter/spring rainfall zone for dryland use. Also used with irrigation. Tolerates water with up to 1500 uS/cm on low salinity soils with adequate drainage.

Soils

Suited to clay soils, pH 5.5-8.5 ($CaCl_2$). 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: Italian ryegrass.

Legumes: balansa clover, arrowleaf clover.

Sowing/planting rates as single species

5-10 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

3-7 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 fertliser

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

Poor recruitment: most cultivars produce little hard seed.

Weed potential

Low. Seed very susceptible to sprouting in the head and 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 (Scherotinia 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

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

AUSTRALIAN OWNED

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

Disclaimer: Synergy Seeds have taken all reasonable care in researching and preparing the information in this publication. While it is thought to be accurate, Synergy Seeds does not accept any responsibility for any negative consequences that may arise from any recommendations or suggestions made. Always seek advice from a local professional prior to purchasing any product.