

MONTI

SUB-CLOVER



450mm+



4.5 – 7.0



Medium
to heavy



C or AgriCote



PBR

KEY FEATURES

- Flowers 2 days earlier than Trikkala and 8 days earlier than Gosse
- Produces excellent early winter growth, averaging 46% more than Trikkala during this period
- Excellent adaptation to the shorter growing seasons experienced over the last decade
- Produces excellent seed yields and regenerates reliably
- Has better tolerance to phytophthora root rot and clover scorch disease than Trikkala
- Well suited to areas receiving an annual rainfall of 450–550 mm and prone to waterlogging.

DESCRIPTION

Monti is an exciting sub-clover that belongs to the Yanninicum sub species. It is the earliest maturing cultivar of this type. Has exceptional early season growth and regenerates reliably. Monti will improve the legume content and productivity of pastures in the waterlogged areas.

Monti's flower is predominantly white with slight pink venation. The seed of Monti is similar in appearance to that of other yanninicum cultivars, being relatively large (approximately 146,000 seeds/kg), white coloured seeds.

Monti has a semi-prostrate growth habit. It has been selected for use in permanent or long term phase pastures. Monti is adapted to temperate areas receiving 450-550 mm annual rainfall and will perform to its best where intermittent winter waterlogging occurs. Like other yanninicum cultivars, Monti is particularly well adapted to moderately acid soils (pH 4.5–7.0 CaCl₂) that range in texture from sandy loams to clays.

PEST & DISEASE TOLERANCE

Monti possesses similar levels of tolerance as other Yanninicum cultivars to red legged earth mites, alfalfa flea, blue-green aphid and spotted alfalfa aphid (Table 1). Importantly, Monti has better tolerance to phytophthora root rot than Trikkala and Larisa (Table 1).

Phytophthora can be extremely damaging to emerging seedlings, leading to extensive losses. Monti is also more tolerant to clover scorch disease (*Kabatiella caulivora*) than Trikkala. Clover scorch can also be very damaging to sub clover stands in the waterlogged areas in which yanninicum cultivars are typically grown and therefore this heightened level of tolerance is important.



Table 1. Pest and Disease Tolerance Ratings

Cultivar	Red legged earth mite*	Alfalfa flea*	Blue-green aphid*	Spotted alfalfa aphid*	Phytophthora clandestina**	Clover scorch*
Monti	ST	ST	VT	T	0.9	3.6
Trikkala	ST	ST	VT	T	2.6	5.5
Gosse	ST	ST	VT	T	1.1	2.6
Larisa	ST	ST	T	T	2.3	NA

Pest ratings: VT = very tolerant; ST = some tolerance; T = tolerant.

Phytophthora ratings: 1 = low incidence of disease; 5 = high incidence of disease.

Clover scorch ratings: 1 = low incidence of disease; 10 = high incidence of disease. NA: Not Assessed

* Data sourced from Mitchell (1990). ** 2010 WA glasshouse screening studies.

VARIETY MANAGEMENT/AGRONOMY

Establishment

Sowing Rate: 2 – 8kg per hectare in a pasture mix or blend.

Seed Bed Preparation: It is recommended to sow following the autumn break into a fine, well prepared seed bed. Seed should be sown with a starter fertiliser and the correct inoculant applied to the seed. Alternatively AgriCote coated seed can be used which includes inoculant, fungicide, micro nutrients and bio stimulants to enhance germination.

Sowing: Best results are achieved by direct drilling sub-clover into the top 1 – 1.5cm into a fine seedbed, press wheels or light rolling will assist establishment in most cases. This should be avoided if the soil is hard setting.

Grazing

Sub-clovers respond well to grazing once established, this is generally when plants will not easily pull from the soil. A good seed set is vital in the first year of a sub-clover pasture to ensure regeneration in the second and subsequent years. To encourage seed set, medium to heavy grazing through late winter/early spring is recommended. Stock numbers should be significantly reduced when the sub-clover starts flowering and until seed set has occurred. Best regeneration will occur the following autumn if the remnant dry growth is removed and good weed control is undertaken. Hay making in the establishment year should be avoided as it will significantly reduce sub-clover seed set and future regeneration.

PERFORMANCE

Monti has been extensively tested in trials in Australia across South Australia and Victoria. Monti demonstrates exceptional early season growth, out-yielding Trikkala, Riverina, Gosse, Napier and Larisa in almost all assessments. In field studies conducted at three sites in South-East South Australia and Western Victoria over 2 years, Monti produced 46 % more early winter dry matter than Trikkala (Table 2). Increases in pasture availability at this time of year are particularly valuable.

Table 2. Average seasonal dry matter yields (kg/ha) at 3 southern Australian over 2 years

Cultivar	Early winter	Late winter	Spring
Monti	1321	2611	5479
Trikkala	908	2383	5258
Riverina	637	2114	5407
Gosse	1013	2366	5395
Larisa	555	1802	5448
Napier	583	1747	5287
l.s.d (P=0.05)	267	250	ns*

* not significant

As the earliest maturing *Yannicum* cultivar, Monti is well adapted to take advantage of shorter growing seasons whilst still producing high levels of dry matter. The early maturity, good hard seed level and high seed yields also lead to a more reliable regeneration and persistence over time.

Reliable regeneration is also dependent on the amount of soft seed available at the autumn break. Table 3 shows that the soft seed levels of Monti had increased to around 33% by May, similar to those of Trikkala and Gosse. In contrast, Riverina and Napier had the lowest soft seed levels and demonstrated the poorest seedling regeneration.

Table 3. Soft seed content, seedling regeneration and seed yield

Cultivar	Soft seed content (May %)	Seedling regeneration (plants/m ²)	Seed yield (kg/ha)
Monti	33	1405	1975
Trikkala	36	1320	2074
Riverina	14	448	1766
Gosse	34	765	1599
Larisa	27	635	1458
Napier	17	191	1204
l.s.d (P=0.05)	10	301	187

NA: not available

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