

## SUBTERRANEAN CLOVER

napier



Napier is a large, cream seeded Sub-Clover that belongs to the *Trifolium subterraneum ssp. yanninicum*. Napier was derived from Greek accessions and is a sister line to Riverina. Field evaluation and selections were undertaken as part of the National Annual Pasture Legume Improvement Program.

Napier demonstrates a prostrate to semi erect growth habit, persists well on moderate to heavy soil types, and will tolerate periods of waterlogging. It demonstrates late season maturity and is suited to high rainfall environments with growing seasons longer than 8 months. Napier was selected as a replacement for Larissa and Meteora with increased hard seed levels and superior winter and spring production. This high level of hard seed protects against false breaks and makes Napier well suited to either permanent pasture or medium to long term cereal rotations. Napier will provide the benefits of soil nitrogen along with an effective disease break.

## CHECKLIST

- ✓ **Late season maturity – 140 days to flower**
- ✓ **Superior replacement Larissa and Meteora**
- ✓ **Excellent winter and spring production**
- ✓ **Good disease resistance**
- ✓ **Tolerant of waterlogging**

## RAINFALL

Napier is well suited to temperate areas receiving a total annual rainfall of 600mm+ and late irrigation.

## SOIL TYPE

Napier is suited to a wide range of medium to heavy soil types with an ideal pH range of 5.0-7.0 ( $\text{CaCl}_2$ ) but will remain productive in soils down to pH 4.5 ( $\text{CaCl}_2$ ) and can tolerate periods of waterlogging. Growers should consider liming (coating or fertiliser applications) if sowing into high acid situations (i.e.  $<4.9 \text{ CaCl}_2$ ). Responses to lime can occur up to pH 6.0 ( $\text{CaCl}_2$ ).

## INOCULANT

Apply group C Rhizobium to seed prior to sowing. Plant nodulation is extremely important for soils below pH 7.0 ( $\text{CaCl}_2$ ). Inoculation is essential to ensure sufficient nodulation occurs and maximise nitrogen fixation.

## MATURITY

Napier is a late maturing type, flowering approximately 140 days after sowing. It requires a very long growing season

( $>8$ months) to ensure good seed production for future regeneration. This makes Napier 25-30 days later maturing than Trikkala and 14 days later than Gosse.

## REGENERATION

Napier has a high level of hard seed (62%) compared to other *yanninicum* varieties such as Trikkala (5-10%), Riverina (25-30%), Gosse (20-25%) and Larissa (10-15%). This characteristic will allow Napier to build up a large seed reserve thus enhancing persistence and productivity for many years to come.

## GRAZING

Napier's late maturity makes it particularly well suited to extended grazing periods into late spring whilst also well suited to hay and silage production. Care must be taken with new sown pastures so as not to overgraze too early as plants can be pulled from the ground. Light grazing during the establishment period will help control weeds and encourage dense prostrate growth.



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Once established, heavy grazing of Napier up to flowering will improve seed set. When flowering begins, stocking rates should be reduced to optimise seed set and prolong the life of the stand.

#### DISEASE RESISTANCE

Napier is resistant to Clover Scorch (*Kabatiella caulinora*) and has demonstrated good resistance to strains 0, 1 and 3 of Phytophthora Root Rot (*Phytophthora clandestina*). It has improved resistance to strain 1 over Tikkala and Larissa. Napier is resistant to Root Rots caused by Pythium (*Pythium spp.*) and Fusarium (*Fusarium spp.*) along with Leaf Rust (*Uromyces trifolii-repentis*) and Cercospora Leafspot (*Cercospora zebrina*).

#### PEST RESISTANCE

Napier, as with all Sub-Clovers, is susceptible to Red Legged Earth Mite (*Halotydeus destructor*), Blue-Green Aphid (*Acyrtosiphon kondoi*), Blue Oat Mite (*Penthaleus major*) and Spotted Alfalfa Aphid (*Theroaphis trifolii*). Therefore control is essential at the early seedling stage and appropriate pest management must be implemented as required.

#### SOWING RATE

When sowing alone to produce a dense stand sow at minimum of 6-10 kg/ha under dryland conditions and 15-20 kg/ha under irrigation. In pasture mixtures, Napier should be sown at 4-10 kg/ha.

If sowing Napier for seed production it is suggested that a rate of 15-20 kg/ha is used.

Optimum time for sowing is early to late autumn after rainfall. Sow at a depth of 1-1.5cm into a moist seedbed free of broadleaf and grass weeds.

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Bolta  
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**Berseem**  
Elite II  
**Crimson**  
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**Persian**  
Kyambro  
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Nitro Plus  
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Gosse  
Losa  
Napier  
Rosedale  
York  
**White**  
Quest  
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