Coolamon subterranean clover

*Trifolium subterraneum*

Agnote DPI 488, April 2004
Dr Brian Dear, Principal Research Scientist,
Ms Belinda Hackney, Research Officer,
Agricultural Institute, Wagga Wagga

Pasture type and use
A new erect mid-season maturity cultivar of subterranean clover intended as a replacement for the cultivar Junee in permanent pastures and in rotation with crops.

Origin
Derived from a complex cross with Junee and selected by the National Annual Pasture Legume Improvement Program (NAPLIP) as a more erect replacement for Junee. Evaluated under the code SE012.

Area of adaptation
Suitable for pastures on tablelands, slopes and plains of NSW with a growing season extending until mid to late October.

Minimum average rainfall
Requires a minimum annual rainfall of 475 mm (southern NSW) and 575 mm (northern NSW).

Advantages
- Herbage production in autumn-winter is on average 12% more than Junee.
- Produces an average of 16% more spring herbage than Junee but can be up to 30% more productive in some environments.
- Seedling regeneration averaged about 12% higher than Junee.
- Sufficient hard seed to withstand false breaks and variable seasonal conditions.
- Low levels of oestrogens, similar to Junee and York but lower than Seaton Park and Woogenellup.
- More erect growth habit than Junee and shows less dark pigmentation in winter.
- Greater resistance to race 2 clover scorch is a distinct advantage over Junee.

Leaf markings
Has a distinct leaf mark, early leaves have no central crescent but a broad pale green arms. Later leaves develop a central crescent extending halfway to the leaf margins. Stipules have red veins and flowers are white with no red band. (see Agfact *Subterranean clover in NSW-identification and use* for descriptions of leaf markings).

Seed
 Produces black coloured seed of similar seed size to Junee, about 7–8 mg/seed. Seed production of Coolamon was on average 6% greater than Junee.

Maturity
- Flowers at the same time as Junee and Woogenellup, about 2 weeks later than Seaton Park and 1 week earlier than Goulburn. Flowers up to 10 days later than Junee in northern NSW.

Hard seed
Moderately hard seeded with about 24% hard in autumn, similar to Junee and Seaton Park but more than Woogenellup.
Disease and pest resistance

Resistant to clover scorch races 1 and 2. Resistant to Cercospora leaf spot. Moderately susceptible to leaf rust and susceptible to powdery mildew.

Some susceptibility to root rots.

Similar susceptibility to red-legged earth mites as other cultivars.

Soil requirements

Similar requirements to most subterranean clovers. Prefers well-drained soils with a pH (Ca)>5.0. Moderately tolerant of soil aluminium (<15% of CEC).

Inoculation

Requires inoculation with Group C inoculant.

Companion species

Can be sown alone or in mixtures with the earlier flowering cultivar Seaton Park and the later flowering Goulburn.

Seed Production

Coolamon is protected under Plant Breeders Rights (PBR).

Further reading


Acknowledgements: Coolamon was developed by the National Annual Pasture Legume Improvement Program (NAPLIP). Information in this Agnote was drawn in part from a report by P. Nichols of Western Australia Department of Agriculture and information supplied by G. Crocker.

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing (April 2004). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check currency of the information with the appropriate officer of New South Wales Department of Agriculture or the user’s independent adviser.

Pasture Improvement Cautions

Pasture improvement may be associated with an increase in the incidence of certain livestock health disorders. Livestock and production losses from some disorders are possible. Management may need to be modified to minimise risk. Consult your veterinarian or adviser when planning pasture improvement.

The *Native Vegetation Conservation Act (1997)* restricts some pasture improvement practices where existing pasture contains native species. Inquire through your office of the Department of Infrastructure, Planning and Natural Resources for further details.

Edited by Bill Noad
Information Delivery Program
Dubbo, April 2004
Agdex 137/30
Job No. 4884