Agnote

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Wynn Round Leaf Cassia

(Chamaecrista rotundifolia cv Wynn)

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DESCRIPTION

Wynn round leaf cassia (*Chamaecrista rotundifolia* cv Wynn) is a semi-erect self-regenerating, short-lived herbaceous perennial legume, which grows to a height of between 60 to 70 cm. About 40% of the plants survive from one wet season to the next. The leaves are bifoliate, with the two leaflets having rounded tips. The flowers are small and yellow. The pods are linear and flat, 38 to 40 mm long and up to 5 mm wide. The seeds are small, about 253 000 per kg, rectangular and flattened.

Flowering starts as early as seven weeks after germination and continues throughout the wet season, provided there is adequate moisture. With an early start in the wet season and a late finish, Wynn can commence flowering from late December to early January and continue flowering to late July. The pods shatter readily, shedding seeds continually during the season.

CLIMATE AND SOILS

Wynn is a native of Central and South America. It has grown well in the Northern Territory (NT) and has persisted around Katherine and farther north in areas with over 900 mm average annual rainfall. It did not persist at Victoria River Research Station, which receives 635 mm annual rainfall.

Although it has adapted to a wide range of soil types, it is best suited to sandy-surfaced soils. It is susceptible to water-logging.

Wynn has grown well on a range of soils in the NT, including red earth (Darwin and Humpty Doo), Blain sand (Douglas Daly), yellow earth (Katherine and Opium Creek Station) and Tippera clay loam (Douglas Daly and Katherine).

Wynn has survived and re-grown after wildfire in the Top End of the NT.

Figure 1. Wynn cassia leaves, flowers and pods

ESTABLISHMENT

At this stage, cultivation is recommended, although there have been a number of cases where careful sowing using low input (burn and sow) techniques has been successful. It should be noted that Wynn has spread into unfertilised and uncultivated areas near Darwin and Katherine.

Sow seed at the rate of 1 to 4 kg/ha, depending on seedbed preparation.

There is no evidence that a specific rhizobium inoculant is required. Nodulation occurs freely with the cowpea inoculant or with native soil rhizobia.

MANAGEMENT

Fertilisers

The type and rate of fertiliser to apply depends on soil type. In general, apply superphosphate at sowing at the rate of 50 to 150 kg/ha on virgin soil or on previously unfertilised areas.

In subsequent years, apply superphosphate as maintenance dressings of 25 to 100 kg/ha per year.

Potassium, molybdenum or zinc fertilisers may be needed on some soils.

If you are unsure of fertiliser requirements, check with an advisory officer before sowing.

Yield

Dry matter yields up to 7000 kg/ha and seed yields up to 1000 kg/ha have been achieved in pure stands of Wynn in the NT.

Grazing

Wynn is resistant to heavy grazing and low mowing or cutting. Cattle may not graze it early in the wet season while it is young and green, but they will eat it towards the end of the wet season as it dries off, licking up fallen leaves. Heavy grazing of a mixed pasture, which includes Wynn, during the wet season, can lead to its dominance.

Wynn should not be grazed in the year of its establishment before it sets seed.

Mixtures

The following grasses can be grown with Wynn: Basilisk signal grass, Gayndah buffel grass, Nixon sabi grass, Jarra and Strickland.

Wynn should combine well with low-growing or tussock grasses, such as Indian bluegrass, Guinea grass and Kazungula setaria. Some grasses, particularly pangola and Tully, may be too competitive for Wynn under Top End conditions.

Wynn competes well with weeds in spaces between grass tussocks in mixed swards. It does best in mixed pastures.

Hay

Wynn hay and silage are well accepted by stock. The hay is of a similar quality to that of Verano.

PESTS AND DISEASES

A leaf-spot caused by the fungus *Macrophomina phaseolina* has been recorded in Wynn in the Top End, but it does not appear to affect production.

In Queensland, seed yield and quality have declined due to heavy infestations by the green vegetable bug (*Nezara viridula)*.

WARNING

Pasture plants have the potential to become weeds in certain situations. To prevent that, ensure that pasture seeds and/or vegetative materials are not inadvertently transferred to adjacent properties or road sides.

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