
pastures
australia
A collaboration between AWI, GRDC, MLA, RIRDC and Dairy Australia

Lablab

Scientific name(s)

Lablab purpureus

Strengths

- Easy to establish with large seed that can be sown directly into moisture
- High yielding with high quality forage
- Non-bloating
- Can be sown with summer grasses (e.g. Forage sorghum) to provide mixed forage system
- Drought tolerant once established
- Can be grazed, harvested for hay, or used as a green manure

Limitations

- Short-lived
- Poor frost tolerance
- Low salt tolerance
- Intolerant of prolonged water logging

Plant description

Plant: summer growing annual or short-lived perennial legume

Stems: thick, trailing and twining

Leaves: comprise 3 large rounded leaflets

Flowers: white or purple borne on long stems

Pods: flattened, usually 4 - 5cm long with 2 - 4 seeds per pod

Seeds: Seed colour can vary according to cultivar from white/cream to brown or black; characteristic fleshy white strip around half of circumference.

Pasture type and use

Lablab is a high yielding forage legume sown for grazing, forage conservation and as a break crop in sub-tropical and tropical farming systems. It is commonly used in mixed cropping-livestock systems in northern Australia and as a legume ley in sugar cane systems to address soil fertility decline.

Where it grows

Rainfall

Best suited to regions with 600 - 2500 mm annual rainfall and predominantly summer distribution.

Soils

Wide range of soils from deep sands to heavy clays provided drainage is good. Will grow on acidic to alkaline soils (pH water 5.0 - 7.5). Does not tolerate poor drainage or prolonged water logging.

Temperature

Tolerates light frosts and is more tolerant of low temperatures than cowpea.

Establishment

Companion species

Grasses: Can be sown with tall forage crops such as sorghum and pearl millet.

Legumes: generally not grown in association with other warm season legumes.

Sowing/planting rates as single species

12 - 20 kg/ha

Sowing/planting rates in mixtures

5 - 8 kg/ha

Sowing time

Spring or summer depending on moisture availability.

Inoculation

Group J (Lablab, Pigeon Pea). Some sub-tropical soils may have suitable native rhizobia, however inoculation with the lablab rhizobia is recommended.

Fertiliser

Establishment fertiliser commonly not applied.

Management

Maintenance fertliser

Commonly grown without fertiliser applications. When grown in sandy soil, it may benefit from applications of phosphorus and sulphur.

Grazing/cutting

Up to three grazings or cuttings are possible. Not tolerant of heavy grazing as this damages stems, but more tolerant than cowpea. Grazing should occur prior to flowering for maximum forage quality.

Seed production

Flowering and pod and seed production often continues over an extended period, especially if high water availability. 'Rongai' is late flowering and seed production is often affected by frosts in many cropping regions. Cultivar 'Highworth' is earlier flowering and avoids most frosts. Grain yields of 1 - 2.5 t/ha can be achieved, depending on cultivar, environment and management.

Ability to spread

Does not spread naturally. May appear in subsequent crops but usually only for 1 year due to low levels of hard seed.

Weed potential

Low weed potential due to short lived nature and poor seed longevity.

Major pests

Lablab roots can be attacked by nematodes and seeds by pod feeding and boring insects.

Major diseases

Lablab is less susceptible to root diseases than cowpea, and disease problems are rare.

Herbicide susceptibility

Highly sensitive to 2,4-D, M.C.P.A, 2,4-D-B and dicamba.

Animal production

Feeding value

High nutritive value. Crude protein levels in the leaf range from 21 - 38% (commonly about 26%), in the stem from 7 - 20% and in the grain, 20-28%. Digestibility of leaves ranges from 55-76% (commonly over 60%).

Palatability

Leaf is highly palatable but stem has low palatability. The palatability of grain is low to moderate depending on variety.

Production potential

Seasonal yields of 2 t/ha leaf or 4 t/ha stem and leaf are common in the sub tropics. Liveweight

gains in cattle have reached over 1.0 kg/head/day.

Livestock disorders/toxicity

Does not contain anti-nutritive factors such as tannins. No reported toxicities and non-bloating.

Cultivars

Group	Cultivar	Seed source/Information
Early flowering	Highworth	Australian Herbage Plant Cultivars
Late flowering	Rongai	Australian Herbage Plant Cultivars

Further information

Tropical Grasslands Society
Tropical Forages Database (SoFT) - Lablab

Author and date

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