Stylo; Caribbean stylo

Scientific name(s)

*Stylosanthes hamata*

Strengths

- Can be oversown into native pasture or grown with sown grasses.
- Grows on low fertility soils.
- Highly persistent under grazing.
- Little effect of anthracnose disease.

Limitations

- Intolerant of waterlogging.
- Frost sensitive.
- Restricted to warmer environments.

Plant description

**Plant:** annual or short-lived, much-branched, prostrate to semi-erect perennial legume, growing to about 75cm tall.

**Stems:** younger stems are fine and green, with fine white hairs down one side (but no bristles as in Townsville stylo).

**Leaves:** comprising three narrow, pointed leaflets 1.5 to 2.5cm long.

**Flowers:** small (4 -5mm wide), mainly yellow, pea-like flowers with red markings.

**Pods:** comprising two single-seeded segments 4 - 7mm long, the upper segment bearing a short hook.

**Seeds:** fawn to brown or maroon in colour (often mottled), with about 270,000 seeds-in-pod or 450,000 dehulled seeds/kg. May have high levels of hard seed.

Pasture type and use

It is often sown into native pasture in the seasonally dry and wet tropics, and warmer subtropics, and provides a useful component in mixed introduced grass/legume permanent pasture.

Where it grows

**Rainfall**

Although mostly sown in areas receiving 700 - 900mm average annual rainfall, it may also be successful at lower (to 500mm) and higher(to 2,000mm) annual rainfalls.

**Soils**

It grows well on most soils with pH of 5.4 to 8.0, but not on heavy clays.

**Temperature**

Very susceptible to frostling.

Establishment
**Companion species**

**Grasses:** Indian bluegrass (Indian couch), sabi grass

**Legumes:** American jointvetch, cassia, stylo, shrubby stylo.

**Sowing/planting rates as single species**

Up to 4kg seed-in-pod/ha (need higher levels of commercially coated seed to give similar number of seeds/unit area).

**Sowing/planting rates in mixtures**

1 - 2kg seed-in-pod/ha (need higher levels of commercially coated seed to give similar number of seeds/unit area).

**Sowing time**

Best sown at the end of the dry season.

**Inoculation**

While the specific inoculum (CB 1650) is most effective for caribbean stylo, Group M inoculum (CB 756) can be used if CB 1650 not available.

**Fertiliser**

Although it is adapted to soils low in available soil phosphorus, an application of 100 - 200 kg/ha superphosphate at sowing will be beneficial on very infertile soils. Molybdenum (Mo) and sulphur (S) may also be necessary in some situations.

**Management**

**Maintenance fertiliser**

An application of 100 - 200 kg/ha superphosphate every 2 or 3 years after establishment (to maintain available soil P levels at about 8 ppm (mg/kg)) should improve both plant and animal performance.

**Grazing/cutting**

Caribbean stylo is tolerant of heavy grazing. Stocking rate should be adjusted to reduce competition from associated grass especially early in the growing season, although prolonged heavy grazing can reduce the density of the grass.

**Seed production**

Flowering normally commences 9 - 10 weeks after germination, and within 6 weeks of the start of the season in older plants can flower, continuing throughout the growing season. While it can set up to 2 tonnes of seed/ha in a season, commercial seed yields are usually of the order of 300 - 600kg/ha from direct heading or 800 kg/ha from vacuum or suction harvest.

**Ability to spread**

Caribbean stylo is spread by seed:

- through the gut by grazing cattle,
- by water movement,
- by the hook on the upper pod segment adhering to the coat of livestock.

**Weed potential**

It is now widespread, but is not considered a serious weed.

**Major pests**

There are no major insect pests.

**Major diseases**

Botrytis head blight is particularly serious in seed crops during periods of high rainfall as it causes death of the flower head. Web blight can damage vegetative growth during wet weather. Anthracnose, which attacks other stylos, is not a problem at this stage.
Herbicide susceptibility

Susceptible to metsulfuron-methyl (e.g. Brushoff®, Ally®).

Animal production

Feeding value

Digestibility of top-growth is of the order of 60-65%. Crude protein levels range from 17 - 24% in green leaf and 6 - 12% in the stem depending on age of regrowth and general growing conditions. Nutritive value declines rapidly with the onset of dry season leaf drop.

Palatability

Very palatable

Production potential

Liveweight gains are usually in the range of 140 - 160 and up to 200 kg/hd/yr depending on stocking rates, growing conditions and mineral limitations. They can be as low as 100 kg/hd/yr on low fertility soils.

Livestock disorders/toxicity

None recorded.

Cultivars

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Seed source/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verano</td>
<td>Southedge seeds Australian Herbage Plant Cultivars</td>
</tr>
<tr>
<td>Amiga</td>
<td>Australian Herbage Plant Cultivars</td>
</tr>
</tbody>
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Further information

Tropical Forages database (SoFT) - Stylo; Cariben stylo

Author and date

Bruce G. Cook

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