

# Legumes

## *Leucaena leucocephala*

Recommended varieties:

'K 636'

'K 584'

- highly productive
- tolerant of heavy cutting and grazing
- high-quality feed supplement
- good fire wood
- good dry season growth

*but*

- not for acid, infertile soils
- not for monogastric animals
- susceptible to psyllid insects
- needs to be planted from seed



*Leucaena leucocephala* is a long-lived tree that is highly productive under regular cutting. Once established it is extremely tolerant of cutting, and can also be grazed. The leaves can be used as a high-quality feed supplement, especially in the dry season. It produces good-quality firewood.

'K636' and 'K584' are the most productive *L. leucocephala* varieties. 'K636' tends to have a single tall main stem, but produces more branches when cut frequently. 'K584' has more branches than 'K636'. *L. leucocephala* is well adapted to wet tropical areas with a distinct dry season. It grows best on heavy fertile soils with neutral or high pH. It does not tolerate infertile, acid soils or soils prone to waterlogging. It is not well suited to cool conditions.

It can be grown as intensive backyard plots, hedgerows or living fences. It must be planted from seed. Seed production is usually easy. The seed has a hard coat which prevents germination unless it is scarified (refer to the booklet, 'Developing forage technologies with smallholder farmers - how to grow, manage and use forages').

As with all tree legumes, seedling establishment is slow and seedlings must be protected from grazing animals, weeds and fire.

All *L. leucocephala* varieties are susceptible to damage by psyllid insects. 'K636' and 'K584' are more tolerant of psyllids than other varieties (eg. cv. Cunningham).

*L. leucocephala* should not be fed to monogastric animals in large amounts (see Section 3, Special Considerations).

Note: In the future, F1 hybrids between 'K636' or 'K584' and other *Leucaena* species may become available. These are likely to be more productive than 'K636' and 'K584' in areas with high psyllid attack.

- 1 *Leucaena leucocephala* is often grown with other crops (PH)
- 2 It is usually planted from seed (JH)
- 3 It is protein-rich feed (JH)
- 4 It produces good firewood (PH)
- 5 Seeds are hardseeded and need to be scarified before sowing (JH)



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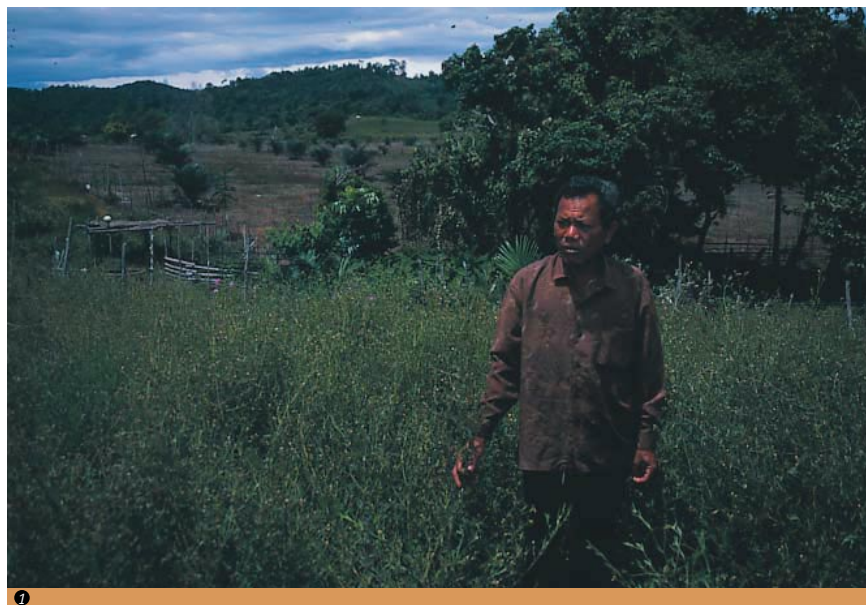
## *Stylosanthes guianensis*

Recommended variety:  
'Stylo 184'

- erect, robust legume for cutting
- highly productive
- good quality feed
- many uses including leaf meal production
- widely adapted to low fertility and acid soils
- leaf stays green into the dry season
- resistant to the fungal disease anthracnose

*but*

- short-lived (2-3 years)
- not tolerant of heavy grazing or frequent cutting



'Stylo 184' is a short-lived perennial legume (2-3 years) that grows into a small shrub with some woody stems.

It is adapted to a wide range of soils and climates but is one of the few herbaceous legumes which will grow well on infertile, acid soils. It will not grow on very alkaline soils (pH >8). Unlike earlier varieties of *S. guianensis* (eg. cv. Schofield, Cook and Graham) 'Stylo 184' has shown good resistance to the fungal disease anthracnose in Southeast Asia.

It is usually grown as a cover crop which is cut every 2-3 months. It effectively suppresses weeds and is a good feed supplement for animals including chickens, pigs and fish. 'Stylo 184' can be fed fresh or dried for hay and processed into leaf meal.

It does not tolerate being cut close to the ground since there are few buds on the lower stem for regrowth. This can be improved by making the first cut at 10-20 cm to encourage branching close to the ground. Subsequent cuts must be made higher (>25 cm) to ensure good regrowth.

It is usually planted from seed, although some farmers are using stem cuttings. Seed production is possible in most areas but is best in areas with a distinct dry season.

Note: It is possible that 'Stylo 184' may one day become susceptible to anthracnose. Other varieties of *S. guianensis* are being evaluated in Hainan, China for better resistance to this disease.

- ① *Stylo 184* grown as a fallow crop and fed sheep in Indonesia (WS)
- ② *Stylo 184* produces seed in most areas in Southeast Asia (EO)
- ③ It can be easily recognised by its leaf shape and yellow flower (WS)
- ④ It is (here in Laos) protein-rich supplementary feed (JH)

