Legumes

Desmanthus virgatus

Recommended variety:
‘Chaland’

- shrubby legume for cutting
- grows best on fertile clay soil
- high-quality feed
- used for leaf meal production
- easy seed production

but

- not suited to acid soils
- needs to be planted from seed

‘Chaland’ is an erect bushy legume growing to 2m which is used in Thailand. Individual plants usually persist for 3-5 years. The leaves are a high-quality feed that can be fed fresh or dried for leaf meal. It can be grown in hedgerows.

It is especially suited to fertile clay soils with neutral to high pH. Although it can survive in areas with a long dry season, it grows best in the wet tropics in areas with only a short dry season.
It has to be grown from seed. Seed production is easy in most areas where it is grown. 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').

Leaves of 'Chaland' are susceptible to damage by psyllid insect but plants recover well.
Legumes

*Desmodium cinerea*

Recommended variety:
‘Las Delicias’

This species used to be called *Desmodium rensonii*.

- fast-growing shrub for cutting
- suited for hedgerows
- good quality feed
- best in wet tropics

but

- short-lived (up to 2-3 years)
- needs to be planted from seed

‘Las Delicias’ is a short-lived (2-3 years) shrub growing to 3 m. It has fast seedling growth which makes it easier to establish than other shrub legumes. Stems become woody and have few branches. It produces a lot of leaf under regular cutting.

It is best adapted to moderately fertile, neutral or slightly acid soils. It grows best in the wet tropics with a short or no dry season and is not suited to areas with a long dry season.
The use of ‘Las Delicias’ in hedgerows has been promoted widely by the Mindanao Baptist Rural Life Center in the Philippines. It is a high-quality feed supplement which is readily eaten by most animals.

It has to be planted from seed. Seed production is high in most areas where it is adapted.

Note:
A related species is Codariocalyx gyroides (see ‘Other potentially useful forages’).
Legumes

*Gliricidia sepium*

Recommended varieties:
‘Retalhuleu’
‘Belen Rivas’

- easy to plant from stem cuttings
- useful as a living fence
- grows in moderately acid soils
- good dry season feed supplement

*but*

- low palatability for cattle
- susceptible to pests

*Gliricidia sepium* is a medium-sized tree which produces a high leaf yield under frequent cutting. It has pink flowers which distinguishes it from the white flowering *G. maculata*. ‘Retalhuleu’ and ‘Belen Rivas’ are more productive and leafy than other varieties of *G. sepium*.

*G. sepium* is one of the few tree legumes that can be propagated easily from stem cuttings. This makes it particularly suited to living fences.

It grows best in wet tropical areas with short to moderate dry seasons. It can grow on acid soils but requires moderate fertility. It will not grow in very acid soils or in cool areas (eg. elevations > 800m). It does not tolerate long periods of waterlogging.

The leaves of *G. sepium* are a high-quality feed supplement that are readily eaten by sheep and goats. Cattle and buffalo often need to be trained to eat it but, once used to its smell, will eat it readily. Mixing leaves of *G. sepium* with other forages is a good way to train animals to eat it. It is successfully used for fattening of cattle in Bali.
During the dry season it normally drops its leaves. If cut late in the wet season, it produces new leaves which stay on the trees until late in the dry season.

There are only a few areas in Southeast Asia where *G. sepium* produces seed. These are areas with a distinct dry season, such as eastern Indonesia. This is not a major problem since it is easily propagated from stem cuttings. Planting from cuttings may give a shallower root system than planting from seed, making the trees less productive in dry conditions.

In humid areas it can be susceptible to insect pests.

1. *Gliricidia sepium* is ideally suited for living fences (PH)
2. ‘Retalhuleu’ produces high leaf yields (WS)
3. *Gliricidia maculata* has white flowers (PH)
4. *Gliricidia sepium* has distinctive pink flowers (WS)
5. Sheep like eating *G. sepium* (WS)