

**More about species...**

**4**

## More about each species...



The growth forms and life spans of major forages included in this booklet are summarised in Table 3. More details about each forage species are given in this section under the headings of:

1. Grasses,
2. Legumes (includes herbaceous, shrub and tree legumes), and
3. Other potentially useful forages (includes forages which are used for special situations only or have yet to prove their value in smallholder farming systems).

The best varieties of each species are listed under their variety name. A Table relating these variety names to identification numbers and cultivar names is included in Section 5 'Appendices'

Table 3: Growth forms and life span of forages

Species	Varieties	Growth form							How long do they live?	
		Short, strongly stoloniferous	Medium-high grasses, forming distinct clumps	Tall, erect grasses, forming distinct clumps	Creeping, twining legumes	Erect bushy legumes	Shrub legumes	Tree legumes		
<b>Grasses</b>										
<i>Andropogon gayanus</i>	'Gamba'			●						L
<i>Brachiaria brizantha</i>	'Marandu', 'Karanga',			●						L
	'Serengeti'		●							L
<i>Brachiaria decumbens</i>	'Basilisk'		●							L
<i>Brachiaria humidicola</i>	'Tully', 'Yanero'	●								L
<i>Brachiaria ruziziensis</i>	'Ruzi'		●							L
<i>Panicum maximum</i>	'Si Muang'			●						L
<i>Paspalum atratum</i>	'Terenos'			●						L
<i>Pennisetum purpureum</i> and hybrids	'Napier', 'Mott',			●						L
	'King'			●						L
<i>Setaria sphacelata</i>	'Lampung', 'Solander'			●						L
<b>Legumes</b>										
<i>Arachis pintoi</i>	'Amarillo',		●							L
	'Itacambira'									L
<i>Calliandra calothyrsus</i>	'Besakih'						●			VL
<i>Centrosema macrocarpum</i>	'Ucayali'				●					S
<i>Centrosema pubescens</i>	'Barinas'				●					S
<i>Desmanthus virgatus</i>	'Chaland'					●				S
<i>Desmodium cinerea</i>	'Las Delicias'						●			S
<i>Gliricidia sepium</i>	'Retalhuleu',									VL
	'Belen Rivas'							●		VL
<i>Leucaena leucocephala</i>	'K636', 'K584'							●		VL
<i>Stylosanthes guianensis</i>	'Stylo 184'					●				S

S-Short-lived (1-3 years)

L- Long-lived (more than 3 years)

VL- very long-lived (more than 6 years)

## Grasses

### *Andropogon gayanus*

Recommended variety:

#### 'Gamba'

- tall grass for cutting
- stays green in dry season
- grows well on infertile, acid soils

*but*

- becomes stemmy if not cut frequently



'Gamba' is a tall perennial grass that is readily eaten by livestock when young. It has soft leaves with fine hairs and seed heads on very tall stems (up to 4m). The seed is light and fluffy.

It grows well on infertile, acid soils in hot climates. It will grow in a wide range of soils and climates but is particularly useful in areas with a long dry season. 'Gamba' stays green long into the dry season when most other grasses are already dry.

It is easy to cut but it can tolerate grazing. It needs frequent cutting or it produces seed heads which are stemmy and unpalatable.

'Gamba' can be easily planted from young rooted tillers but not old tillers. Establishment from seed is often difficult because of poor seed quality.



- ① 'Gamba' has fluffy seed heads (WS)
- ② It becomes stemmy if not cut frequently (JH)
- ③ 'Gamba' is leafy when cut (WS)
- ④ In Makroman, Indonesia 'Gamba' is used for cut & carry feeding (WS)



# Grasses

## *Brachiaria brizantha*

Recommended varieties:

'Marandu'

'Karanga'

'Serengeti'

- tall grass suitable for cutting
- grows well on moderately fertile, acid soils
- stays green in the dry season
- better seed production than *B. decumbens*

but

- should not be fed to goats, sheep and young cattle



*Brachiaria brizantha* is a perennial grass with a wide range of growth habits. All varieties are suitable for cutting and grazing. Of the three recommended varieties, 'Karanga' and 'Marandu' are tall, growing up to 2m. 'Serengeti' is a shorter grass (up to 1m) similar in growth habit to *B. decumbens*. The three varieties produce good seed, except near the equator.

All three varieties are adapted to a wide range of climates and soils. They will grow and persist on infertile, acid soils, but they need slightly higher fertility than *B. decumbens* and *B. humidicola* for good growth. *B. brizantha* stays green long into the dry season.

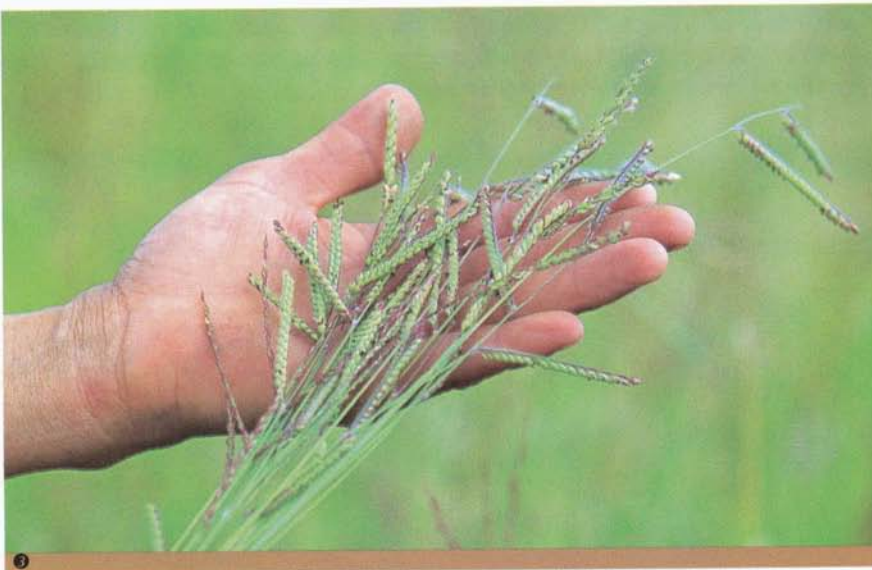
*B. brizantha* should never be fed to sheep, goats or young cattle (see page 27).

'Marandu' is not well adapted to waterlogged soils and sometimes suffers from leaf disease in areas with very high rainfall. The other two varieties are more suited to such areas.

*B. brizantha* can easily be planted from rooted cuttings or seed.



- 1 'Marandu' for cut and carry near the house (WS)
- 2 'Marandu' stays green in the dry season while *Paspalum atratum* 'Terenos' does not (WS)
- 3 *B. brizantha* varieties produce good seed (JH)
- 4 'Marandu' (JH)



# Grasses

## *Brachiaria decumbens*

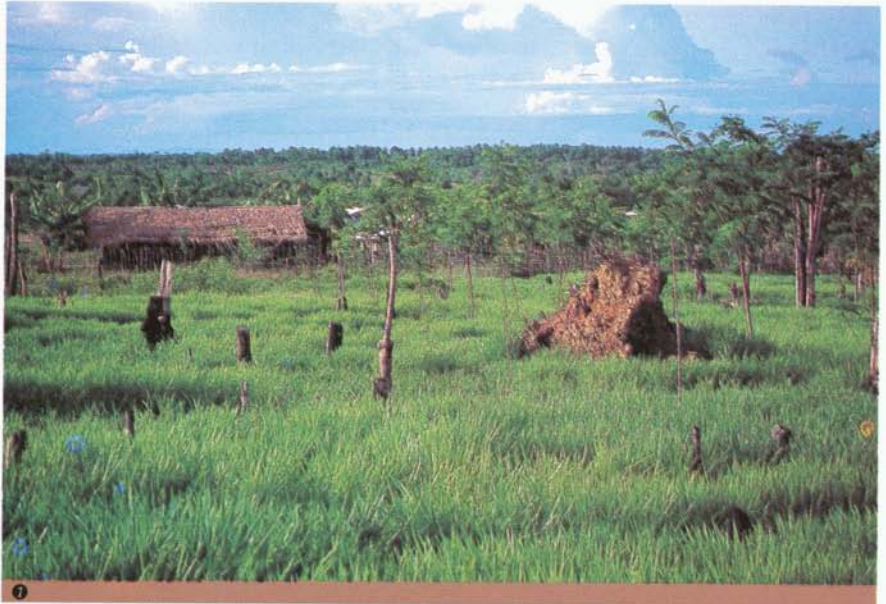
Recommended variety:

### 'Basilisk'

- for grazing, sometimes used for cutting
- adapted to a wide range of soils
- stays green into the dry season

but

- should not be fed to goats or sheep
- poor seed production in Southeast Asia



'Basilisk' is a vigorous perennial grass growing to 1m. If left uncut tillers fall over, grow sideways and provide good ground cover. Seed production is frequently poor in Southeast Asia.

It is adapted to a wide range of climates and soils, and will persist on infertile, acid soils. It is well suited to the wet/dry tropics, remaining green long into the dry season. 'Basilisk' is better suited to lower soil fertility and longer dry seasons than *Brachiaria brizantha*.

'Basilisk' should never be fed to sheep, goats or young cattle (see Section 3, Special Considerations).



It can be planted from rooted cuttings. Planting from seed can be unreliable because seed quality is often poor.

Note:

*Brachiaria brizantha* 'Serengeti' is a promising alternative to 'Basilisk'. It is similar in growth habit but, unlike 'Basilisk', produces high yields of good seed in many areas in Southeast Asia.



- ① Grazed plots in North Sumatra, Indonesia (WS)
- ② 'Basilisk' (JH)
- ③ Seed yield of 'Basilisk' is low in Southeast Asia (WS)



# Grasses

## *Brachiaria humidicola*

Recommended varieties:

'Tully'  
'Yanero'

- vigorous creeping grass
- good for erosion control
- can tolerate heavy grazing
- can grow on very infertile soils
- can tolerate some waterlogging

*but*

- lower quality feed than other *Brachiaria* species



*Brachiaria humidicola* is an aggressive, low growing grass. It spreads quickly via stolons. 'Yanero' is more leafy than 'Tully' but both varieties have a lower feed quality than other *Brachiaria* species. 'Tully' spreads more rapidly than 'Yanero' and is well suited to erosion control. Seed production is frequently poor in Southeast Asia.

Being low growing both varieties are less suitable for cut-and-carry than other *Brachiaria* species, but can tolerate heavy grazing.

They will grow in a wide range of soils from very infertile, acid soils to high pH sandy soils. They grow best in the wet tropics with no or short dry season. They are tolerant of waterlogging and can survive short periods of flooding.