3. Brachiaria grass cultivars

Improved Brachaira grass cultivars have been introduced and evaluated in Africa since the beginning of 2000 initially as a component of pull-push technology for controlling pests on food crops, and very recently for animal nutrition. The major characteristics of commonly grown Brachiaria grass species and their cultivar(s) in Africa are introduced in this section. All five Brachiaria grass cultivars illustrated in this manual have a perennial growth habits with productive life of up to 20 years. These cultivars were selected through the participatory evaluations involving farmers in Kenya and Rwanda.

3.1. Brachiaria decumbens cv. Basilisk

Brachiaria decumbens cv. Basilisk

Brachiaria decumbens cv. Basilisk, commonly known as Signal grass was the first improved Brachiaria grass cultivar. It was developed in Australia from the germplasm collected from the native grasslands of Uganda. It is low-growing, sward forming perennial grass with decumbent or semi-erect growth habit and plant height ranges between 50 – 150 cm. It produces thick swards thus highly persistence to grazing. Basilisk has a broad agro-climatic adaptation and can be grown in areas with an average annual rainfall of 700 mm and above, with a dry season of no longer than 5 months, tolerates acidic soils and has stable biomass production. It is highly palatable and nutritious and thus gives good animal performance. It has annual dry matter (DM) yield potential of 30 t/ha.

3.2. *Brachiaria brizantha*

Brachiaria brizantha is a tufted perennial grass commonly known as Breard grass or Palisade grass. The plant height ranges from 60 -120 cm with deep roots of upto 200 cm. It can be grown on a wide range of soils of medium to high soil fertility with pH range of 4 - 8. It can be grown in areas receiving annual rainfall of around 1,000 mm and can withstand dry seasons of 3 to 6 months. The annual dry matter yields range from 8 to 20 t/ha depending on the cultivar. The characteristics of three *B. brizantha* cultivars - MG4, Piatã, and Xaraes that have been promoted in Africa are described below.

3.2.1. Brachiaria brizantha **cv. MG4**

The cv. MG4 was developed in Brazil from the germplasm collected from tropical Africa. It is adapted to poor soils and perform well in the

areas receiving annual rainfall even below 800 mm due to its deep root system.

3.2.2 Brachiaria brizantha cv. Piatã

The cv. Piatã was developed in Brazil from germplasm initially collected from Ethiopia. It is highly productive up to 2,000 m above sea level with annual rainfall of 700 mm and above. It is drought and cold tolerant. It is suited to soils of average fertility and may be cultivated in sandy soils.

3.2.3. Brachiaria brizantha cv. Xaraes

The cv. Xaraes also known as Toledo was originally collected from Burundi. It is suited to soil of medium fertility with annual rainfall of over 800 mm and elevation of up to 2,300 m above sea level. It holds the soil firmly and can be used for erosion control on hilly areas. It has a long flowering cycle than Piatã and MG4 cultivars and produces high biomass yield. Xaraes is less tolerant to drought than MG-4 and Piata.

3.3. Brachiaria hybrid cv. Mulato II

Mulato II is a product of three way crosses of *B. ruziziensis*, *B. decumbens* and *B. brizantha*. It is a leafy, semi-decumbent perennial grass of medium height in between 80 to100 cm. It has short hairs on the leaf blade and leaf sheaf. Mulato II is known for high in crude protein (CP) of up to 16%. It grows well from sea level to 1,800 m above sea level, with annual rainfall of above 700 mm but it is tolerant to prolonged

period of drought of up to 4 months. In Kenya, Mulato II is most suited for growing in the coastal lowlands because in other parts it is suscetiple to red spider mites attack whereas it is grown across Rwanda. Its annual dry matter yield potential is as high as 35 t/ha.