

8. Utilization of Brachiaria grass

Young Brachiaria grass is highly palatable and nutritious and decline with age. The green forage can be harvested for cut-and-carry feeding system or grazed directly in the field. Brachiaria can also be harvested and preserved as hay or silage for feeding during the dry season. Brachiaria grass can be harvested multiple times (up to 5 times) a year. Newly established Brachiaria stand should be allowed adequate period to establish and develop robust root systems for anchorage in soil and for absorbing soil water and nutrients before grazing or harvesting. The first harvesting should be made between 3 to 4 months after seedling emergence. However, for the direct grazing this period should extended by 1 to 2 months to maximize ground coverage and to minimize trampling effects. The grass should be cut at a height of around 5 cm above the ground to ensure fast re-growth. Subsequent harvests can be carried out at 8 to 12 weeks (2 to 3 months) interval depending on the forage need. Harvesting may be done using sickles or machetes while mechanical harvesters are also available for harvesting. Table 2 shows the chemical composition for different cultivars when harvested at 8 weeks. The values are indicative of the quality and vary depending on management and agro-ecological conditions.

Table 2: Chemical composition (%) of Brachiaria grass cultivars in Kenya harvested at 8 weeks intervals.

Cultivars	Ash	[†] CP	[‡] NDF	[±] ADF	⁺ ADL	[¶] IVDMD	Ca	P
Xaraes	12.6	12.9	61.7	39.5	3.95	48.4	0.45	0.40
Piata	11.4	13.5	61.4	41.2	4.04	50.2	0.36	0.32
MG4	12.5	12.6	59.4	36.8	4.05	52.2	0.40	0.41
Basilisk	11.4	14.0	59.8	40.8	3.59	51.1	0.38	0.38
Mulato II	15.0	16.2	59.1	39.7	3.79	65.0	0.36	0.35

Ca=Calcium; P=Phosphorus; [†]CP=Crude protein; [‡]NDF=Neutral detergent fibre; [±]ADF=Acid detergent fibre; ⁺ADL=Acid detergent lignin; [¶]IVDMD=*in-vitro* dry matter digestibility



Figure 10: Manual harvesting Brachiaria grass



Figure 11: Dairy cattle grazing *Brachiaria* grass