

BOMA RHODES ARTICLE

Introduction

Lack of enough good feed for the cow is one of the major causes of low milk production. Growing of forages can improve the production of milk. Forages are easy to grow and yield high dry matter for the cow. There are many types of forages that can be grown in different agro-ecological zones. Some of common forages are shown below:

Agro-ecological Zone	Forage and Ley grasses	Yield (ton/ha)
1000 – 1800m (< 650mm rainfall)	Panicum maximum	10.00
	Eragrostis superba	4.33
1200 – 1850m (1000 - 2500mm rainfall)	Napier grass	17 - 25
	Rhodes grass	10 - 18
	Seteria shacelata	10 - 16
	Panicum maximum	9-14
1850 – 2400m (1000 – 2500mm rainfall)	Rhodes grass	7 - 15
	Napier grass	12 - 17
	Setaria grass	7 - 10

Forages are cultivated and are either grazed or cut and fed either as fresh green fodder or conserved as hay.

The following are specific agronomic recommendations for growing Boma Rhodes grass as fodder.

Planting

- Sow as early as possible in the rainy season
- Sow seeds close to the surface to get them in contact with moist soil so they will absorb moisture and germinate. Do not bury the seeds deep since initial vigour is not sufficient to push through a heavy cap of soil.
- Either broadcast grass seeds or drill in rows 30–40 cm apart.
- Mix the seeds with sawdust, rough sand or fertilizer for an even distribution in the field. If the seed is mixed with fertilizer, plant immediately to prevent the fertilizer from burning the seed.
- Grass seeds are mostly planted with a wheat drill. Planting is by hand in small-holder farm.
- Immediately after sowing compact the seedbed to enhance germination of the grass seed by improving contact with the soil. Use tree branches or trample by foot on small plots. In mechanized farms, use a roller.

Fertilizer application at planting

Apply phosphate fertilizer or farmyard manure to promote strong root development. The recommended rates of fertilizer application are as follows:

- TSP 1–2 bags/ha or
- DAP 1–2 bags/ha or
- 10 t/ha of farmyard manure—should be broadcast and harrowed in before planting
- Top-dressing with 5 bags CAN /ha or 5 t farmyard manure/ha per year

Note: To prevent scorching the seed, use DAP only when rainfall is adequate, and use only well-decomposed farmyard manure.

Stocking Rate for Boma Rhodes: The stocking rate is 1.6 MLU/acre/year. (Stocking rate is the number of animals for which a grassland unit can provide adequate dry-matter forage for a specified length of time. MLU – matured livestock unit, equivalent to 500 kg non-lactating bovine)

Haymaking

Hay is fodder conserved by drying to reduce the water content so that it can be stored without rotting or becoming mouldy (reducing the moisture content slows down the rate of growth of spoilage microorganisms). The moisture content should be reduced to about 15%.

Harvesting and curing

- Harvest the fodder for haymaking when the crop has attained 50% flowering. At this stage protein and digestibility are at maximum, after which they decline with age.
- The fodder should be harvested after 2 to 3 days of dry weather so that drying will be possible.
- Where possible, drying should be done under shade so that the dried fodder retains its green colour, which is an indicator of quality.
- Turn the fodder using a farm fork to ensure even drying.
- Check the dryness by trying to break the stem. If it bends too much without breaking, there is still too much water.

(Note: Legumes and grasses can be mixed to make better-quality hay, e.g. Rhodes grass

+ Lucerne).

Baling hay

Baling the hay allows more material to be stored in a given space. A good estimate of the amount stored makes feed budgeting easier. Baling can be manual or mechanized, manual baling being more economical for small-scale dairy farmers. Manual hay baling is done using a baling box with dimensions 85 cm long x 55 cm wide x 45 cm deep, open on both ends. If the hay is well pressed, the box will produce an average bale of 20 kg.

Storage

Hay should always be stored in a sheltered enclosure away from direct sunlight and rainfall, e.g. in hay barns. Rats and other rodents should be controlled as they can damage the hay.

Hay can also be stored without baling by heaping it into a dome-shaped stack and covering it with a polythene sheet or a tarpaulin.

Feeding

A dairy cow weighing 400 kg will consume an equivalent of about 3% of its body weight in dry matter (12 kg dry matter) per day. Since hay contains 85% dry matter, if the cow consumes nothing else, it will require 14 kg of hay per day.