

Theme 1: Forage production and pasture management

BRACHIARIA GRASS MANAGEMENT

Level 1

Topic	Training & information Content
1.1	Planning of fodder/feed requirements for the dry season
1.2.1	Integrated soil fertility management I
1.2.2	Integrated soil fertility management II
1.3	Use of natural resources, compost making, farmyard manure, manure storage and use
1.4	Growing maize and sorghum for fodder and estimating time of harvest and yield
1.5	Brachiaria, Panicum, & Napier (cut and carry) grass management
1.6	Growing fodder trees and use of feed
1.7	Estimating of dry matter content, feeding value and yield of various fodder crops
1.8	Guidelines for Tropical pasture management and grazing management
1.9	Scaled mechanization of forage production and pasture management (harvesting practices)
1.10	Operating farm equipment and self-propelled tractors
1.11	Mechanization of feeding management
1.12	Economics of forage and pasture production



Brachiaria Grass Management (Level 1)

Learning Activities - You will learn about:

- How to establish and maintain Brachiaria grass field
- Harvesting, conservation and feeding of Brachiaria grass

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Background

- Improved Brachiaria is a new grass variety that complements Napier grass as a fodder for dairy cows



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How to establish Brachiaria Grass: Nursery establishment

- Measure a nursery of 1 x 5m and raise to 0.5m. Dig finely.



Important: The nursery bed should be protected from domestic animals like dogs and poultry

Raised, fine dug
nursery bed

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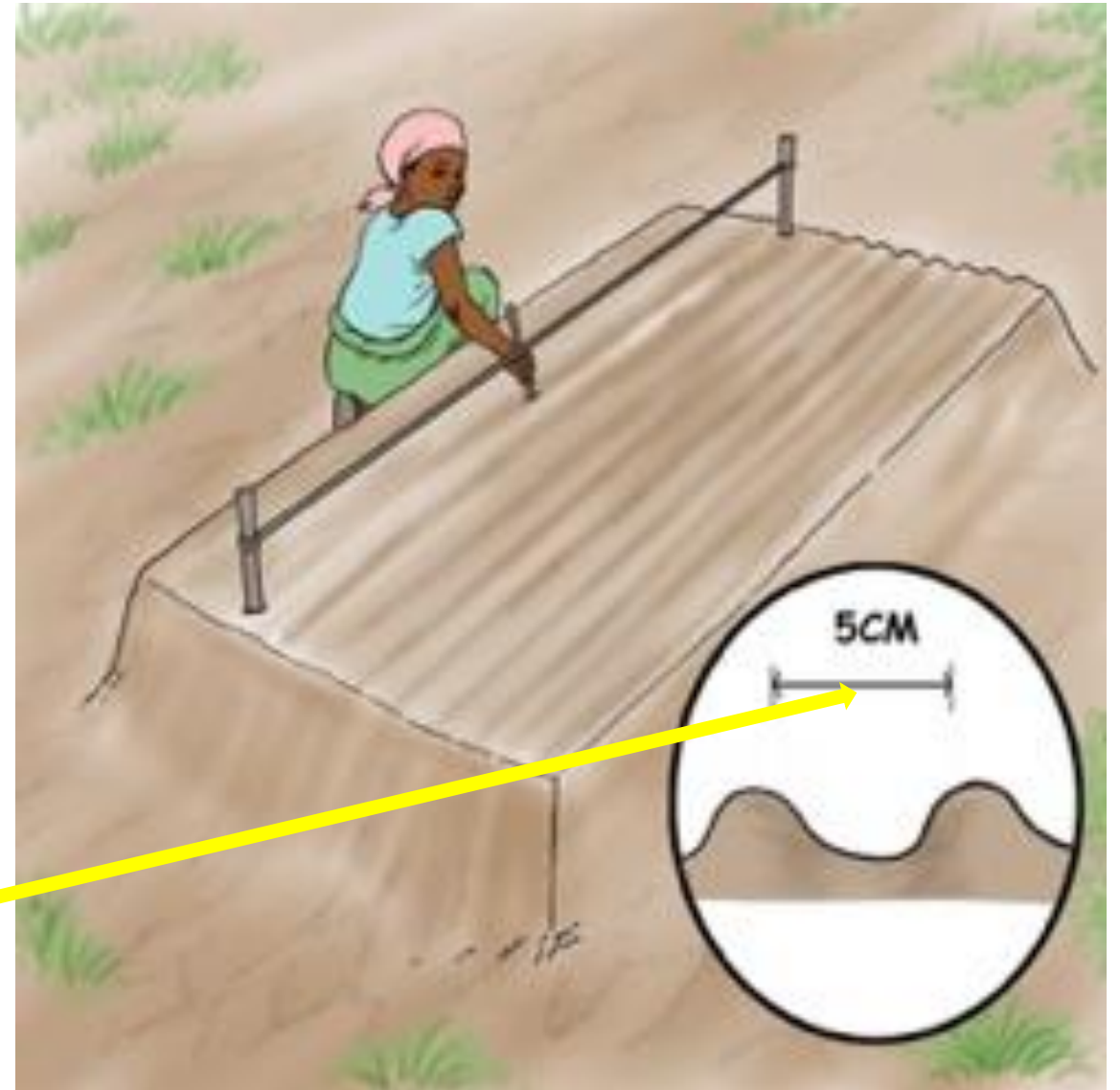
Propagating Brachiaria grass

Can be by **seeds** or **vegetative methods (root splits)**.

Seeds: Sowing the seeds

- Use a string to make straight furrows 5cm between the rows
- Dig the furrows along the row no more than 2 cm deep. This gives 18–20 furrows.

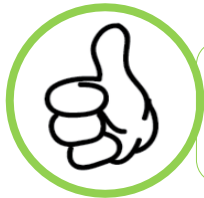
Distance of furrows between the rows



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Drill the seeds into the furrows

- Drill 0.5 kg of seeds, evenly placed in the furrows and cover all seeds lightly with soil
- Water immediately



Important: 2.5kgs – 3kgs of seeds are enough for One (1) acre piece of land



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Mulching

- Cover the nursery bed with dry grass, straw, dry banana leaves or any such kind of material to help preserve moisture in the nursery
- Using local materials, construct a simple shade over the nursery.



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Watering

- On dry days, water the nursery bed both morning and evening. Excessive watering can cause water logging
- Protect the bed from any damages and from scavenging birds, pests or diseases.

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Important: Remove the mulch immediately after germination

- After 5 – 7 days, or as soon as you observe that germination has started, remove the grass mulch to allow the seedlings to grow.



Important: Remove the shade gradually

- From the third week, gradually remove the shade that is covering the seedlings to allow in more light.



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Transplanting

Preparation for Transplanting

- Seedlings will be ready for transplanting within 4–6 weeks. Select a suitable field to (trans)plant

Field selection

- For ease of carrying the grass to the cows, select fields close to the feeding/zero grazing unit
- Fields for grazing can be further away from the homestead



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Important: *It is recommended that planting takes place during the rainy season*

- Plant 1 - 1½ acre per cow. If well maintained high quality Brachiaria grass is enough to feed one cow, a heifer and a calf.

Root splits

- One can also use root splits to (trans)plant Brachiaria grass.
- Before transplanting prepare the selected field appropriately

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Site preparation: Preparing the selected field for transplanting seedlings

- Select an area at least 2 x 6 m
 - Area close to the homestead is desirable to easily monitor/keep an eye on it
 - Have ease of access to water sources for ease of watering
- Clear the selected area from all weeds
- Plough the land and mix the soil thoroughly with manure



Important: Preparation of the seedbed/site should take about 6-8 weeks before onset of rains



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- Dig holes for plants 25 cm apart along lines 50 cm apart from each other. This will make weed control easier.



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Time to plant the seedlings onto the field/seedbed

- Water the nursery in the morning to soften the ground to allow ease of uprooting the seedlings
- Remove each seedling with soil attached to the roots.



A seedling with soil (lump) attached to the root

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- Plant the Brachiaria grass seedlings with well-dried farmyard manure. Apply one handful of per hole.
- DAP can be used as an alternative at the rate of one soda bottle top per hole.



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- Transplant during early in the morning (6–10 am) or late evening (4–6pm) when temperatures are lower.
- Prun/trim long roots on the seedlings to avoid fungal infections
- Plant one rooted tiller per hole.

Planting one rooted tiller per hole

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Maintenance of Brachiaria grass

- Keep weeds away
- Always make sure the plants have enough water and nutrients (manure or fertilizer)

Photo courtesy: Innocent

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Harvesting/When to cut

- Brachiaria grass takes 80-150 days to first harvesting - about 1 meter high.
- Harvest/cut as follows:
 - **Rainy season:** Every 25–45 days
 - **Dry season:** Every 60–70 days



Harvested
Brachiaria grass

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Feeding Brachiaria grass

- Using a machete, chaff cutter or mechanical chopper, chop the grass in small pieces of 1-2 cm length
- When feeding, note that an empty 50kg fertilizer bag, filled with chopped grass is equal to 25kg of feed
- Brachiaria grass can also be conserved as hay or silage



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