

Figure 10: Planting one rooted tiller per hole.



- Transplant early in the morning or late in the evening (from 6–10 am or 4–6pm) when temperatures are lower to avoid exposing the seedlings to excess heat.
- Plant one rooted tiller per hole (Figure 10). Planting more than this creates competition between plants and reduces the plantable area.
- Keep some seedlings in the nursery to replace seedlings that die after they are transplanted.

## Managing the Brachiaria crop

### Weed control:

- Inspect the field a week after the seedling have been transplanted and replace any dead seedlings.
- Well established Brachiaria grass is quite resistant to weeds. However, farmers need to control weeds manually in the early stages of growth.

### Pest and diseases

- During the growing period inspect the crop for pests and diseases. Red spider mites and shoot borers frequently attack Brachiaria grass. Once the grass is attached, red spider mites will be found all over the plants. So take care of infestations before the plants become permanently damaged. A plant infested by red spider mites will start to look unhealthy and appear dusty on the underside of its leaves. The best way to eliminate red spider mites is to avoid getting them. Keeping plants healthy and the areas around the crop free of weeds will keep red spider mites away. In addition, ensuring the plants have enough water will help keep the red spider mites away as they prefer very dry environments.
- Brachiaria grass can be attacked by army worms. Army worms attack, feeding on grass shoots. Insecticides can be applied successfully at the early

stages of an attack. Adult worms become resistant to chemical applications. Treatments should be applied in the evening before they begin feeding.

### Harvesting

- The harvesting stage differs according to different climate. Generally, Brachiaria grass will be ready for the first harvest 3–5 months after establishment. At this stage, the Brachiaria grass will be about 1 m tall. Further cuts can be made every 8–12 weeks, depending on the climate.
- Cut the grass 5 cm above the ground using a machete, a sickle or a motorized brush cutter.

### About AVCD

This material was produced on behalf of the Feed the Future Kenya Accelerated Value Chain Development (AVCD) program. This program seeks to widely apply technologies and innovations for four value chains—dairy, livestock, staple drought tolerant crops and staple root crops—in order to competitively and sustainably increase productivity, contributing to inclusive agricultural growth, nutrition and food security in the country. The main goal of AVCD is to sustainably reduce poverty and hunger in the Feed the Future zones of influence in Kenya. Focusing on the livestock, dairy, staple crops root crops and staple drought tolerant crops value chains in Kenya, AVCD aims to lift 317,000 households out of poverty, making them food secure and enabling their transition from subsistence to market-orientated farming.

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## AVCD Extension brief

# How to grow brachiaria grass

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## 1. Introduction

Brachiaria grass can be grown in different climates but best in areas with medium–high rainfall. Brachiaria grass is nutritious and produces a lot of forage—between 250–300 bales per acre of cut grass. This brochure offers guidelines on producing seedlings and on planting and managing Brachiaria grass on one acre of land to increase the quality and yield of the crop.

Figure 1: Clearing the land for a Brachiaria nursery



### Nursery establishment

1. Select an area at least 2 x 6 m
2. Ensure the selected area is close to the homestead to facilitate

monitoring and supervision.

3. Ensure it is also close to a water source for ease of irrigation

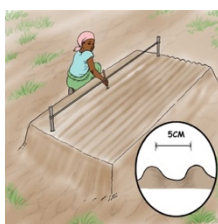
4. Clear the selected area of all weeds and grasses

Figure 2: Preparing a raised seedbed to establish the nursery



Measure the nursery area, ensuring it is 1 x 5 m. Double dig<sup>1</sup> the nursery to a fine seedbed. Raise the seedbed by 0.5 m (Figure 2). This will prevent water logging in the seedbed and facilitate good root development.

Figure 3: Making furrows at a spacing of 5 cm



### Sowing the seeds

1. Use a string to make straight furrows 5 cm between the rows (Figure 3)
2. Dig the furrows along the row no more than 2 cm deep (Figure 3). This should give you 18–20 furrows.

Figure 4: Drilling the seeds evenly in the furrows



1. Drill 0.5 kg of seeds, evenly placed in the furrows, and cover them lightly with soil. Ensure all the seeds are covered by the soil (Figure 4). Water the seedbed immediately after drilling.

Figure 5: Covering the seedbed with dry grass (mulching)



### Caring for the nursery

1. When the drilling is complete, mulch the seedbed with dry grass, straw, dry banana leaves or any such kind of material (Figure 5). Mulching helps preserve the moisture in the seedbed.

2. Using local materials, construct a simple shed over the nursery to protect germinating seedlings (Figure 5) as young seedlings can be delicate and die if exposed to direct sunshine and prevent birds from eating the seeds.

Figure 6: Watering the nursery bed



1. On dry days, water the seedbed twice daily (morning and evening) using a watering can with a nozzle. Be careful not to water the seedbed excessively. This will cause water logging that could

stress the seedlings (Figure 6a and 6b).

2. Monitor the seedbed to ensure the nursery is not destroyed by scavenging birds, pests or diseases. Protect the seedbed from being damaged if need be.

Figure 7: Remove mulching after germination



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

2. Keep the seedlings in the nursery for 4–6 weeks. During early stages of establishment, weed infestation is likely, so monitor them closely and manually remove emerging weeds.

Figure 8: Removing the mulch when the seeds have started germinating



1. From the third week, gradually remove the shade that is covering the seedlings to allow in more light. This will make the seedling stronger and ready for

transplanting (Figure 8).

### Transplanting seedlings

- Seedlings will be ready for transplanting within 4–6 weeks.
- Identify and plough or dig one acre of land in advance before the onset of rains.
- It is recommended that transplanting should be done during the wet season.
- Dig holes for plants 25 cm apart along lines 50 cm apart from each other (Figure 9a and 9b).

Figure 9: Dig plant holes 25 cm apart from each other on lines 50 cm apart

- Plant the Brachiaria seedlings with well-dried farm yard manure. Bring the manure close to the field. Apply one handful of per hole.
- The seedlings should be transplanted during the cool hours of the day, preferably in the evening.
- Water the nursery in the morning to soften the ground to allow easy of uprooting the seedlings.
- Remove each seedling with soil attached to the roots. Seedlings should be carefully arranged on trays or gunny bags and transported for planting.



<sup>1</sup> Dig the nursery twice ensuring it is at least 0.5 m deep and remove any stones, roots or any underlying material.