



NAPIER GRASS FOR DAIRY CATTLE

AIM: TO SUPPORT FARMERS TO PLANT AND MANAGE NAPIER GRASS AS A CUT AND CARRY FEED FOR DAIRY ANIMALS

What is Napier grass?

- ✓ Napier grass is a **drought tolerant fast-growing perennial** grass.
- ✓ It can grow up to 4 metres tall.
- ✓ It is suitable as a **'cut and carry'** feed in both the wet and at the start of the dry season; - *see fact sheet F06 and F06A for example feed plans.*
- ✓ Napier can be interplanted with desmodium, lablab or velvet beans to increase protein content and make it more nutritious.
- ✓ Napier grows very well when fertilized with **farmyard manure**.

How to grow and manage Napier grass

Step 1: Land preparations

- Prepare basins 30 cm by 30 cm wide by 15 cm deep.
- Basins capture water, so help with the growth of the plant.
- Ensure 80 cm between rows and 50 cm between plants in each row.
- Ideally Napier should be grown **close to the kraal** – makes it easy to **"cut and carry"** and to **fertilise with manure**.

Step 2: Fertiliser application

At establishment: Place in each basin/plant station either:






- Two shovels of farmyard manure; or
- 40 grams (4 tablespoons) of Compound D.

Afterwards: at the start of each rain season **top dress** with urea (needs water to absorb into the soil) or 1-2 shovels of farmyard manure.

To boost growth of new shoots fertilise **after every cut** using 1-2 shovels of farmyard manure (NOT UREA).

Step 3: Preparing and planting cuttings

- You can use improved or local (landrace) planting materials.
- Only use cuttings/root splits from healthy, mature plants. You want cuttings that can easily develop shoot and root systems.

				
Basins	Napier growing in basins (at planting and 2 weeks after planting)		Tool used to measure spacing	Harvesting natural varieties



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- Cuttings must have 4 nodes with buds intact.
- When cutting planting material, cut the bottom of the plant at an angle.
- Ensure you plant the cuttings the **right way up** (the angled 'bottom' portion should go into the soil to establish the roots).
- Plant cuttings at a slanting position ensuring 2 of the 4 nodes are buried into the soil to form roots. Two nodes are exposed to form shoots.
- Above all, **REMEMBER** to control weeds;
- If you have access to water, you can irrigate Napier during the dry season to increase production.

Step 4: Harvesting

- In a good rain season, Napier will take 2 to 3 months to first harvest.
- Harvest at **waist height** (about 90 cms) when it is **succulent, palatable** and **easily digested** by cattle. If over a metre, Napier becomes woody, can be difficult to chop and for cows to digest.
- Cut the Napier at least **5 cms above the ground** to allow for regrowth and minimise contamination with soil.
- Adequate soil moisture can allow four or more cuts in a year.
- If well fertilised and managed a good crop will provide at least 3 cuttings during the rain season and an additional 2 cuttings after the rains have gone.

Step 5: Management of Napier grass

- Add **cow dung** (or urea - water needed to allow absorption) to each clump of Napier after harvesting. This helps boost 'shooting out'.
- **REMEMBER** to remove weeds;
- You can also irrigate Napier during the dry season.

Step 5: Feeding

- Napier is best used in a cut and carry system.
- Napier is best fed chopped into 3 to 5 cm pieces (*see photo*).
- 30 kg/day of fresh Napier provides sufficient nutrients for a 400 kg dairy cow during the early dry season – *see fact sheets F06 and F06A*



- ✓ **Feeding troughs** prevent contamination with mud, urine or dung and avoid feed wastage. Remember to **clean** troughs every day!

ZDTP is focused on supporting dairy farmers to improve their productivity, milk quality and linkages to urban markets. The views expressed in this publication are those of the implementers of the programme and do not necessarily reflect those of the New Zealand Government. For further information, please contact ZDTP on zdtpinfo@primeconsultants.net. Follow us on www.zambiadairy.com, Facebook (facebook.com/zambiadairy/) and Twitter ([@DairyZambia](https://twitter.com/DairyZambia)).