



MAKING HAY

AIM: TO SUPPORT FARMERS TO MAKE HAY AS A FORM OF ROUGHAGE FOR DAIRY ANIMALS.

What is hay?

- ✓ Hay is made from dried grass and/or legumes.
- ✓ It can be fed to cattle when pastures are in short supply, e.g. during the dry season.
- ✓ It is a good source of roughage for cattle and, if made and stored correctly, can be a good source of nutrients.

What is the best type of pasture to make hay?

- ✓ Hay can be made from natural and cultivated pastures.
- ✓ Good types of pasture are **giant star grass** and **common thatching grass**.
- ✓ It is best to choose pastures that are **palatable** (i.e. animals like to graze) and have a **high leaf to stem ratio** (i.e. less stem and more leaves).
- ✓ As the rain season ends, there is an opportunity to cut grass from along the rivers.

When is the best time to make hay?

- ✓ Pasture is ready to harvest when **half of the field is flowering**. This gives the best balance between nutrient content and herbage yield.
- ✓ You need at least **four (4) dry days after cutting** for the hay to dry before baling. If it rains on the cut pasture, the hay can easily rot.

REMEMBER that as well as good weather you will also need **equipment** and **labour**. So choose a time when there are fewer other jobs to do on the farm.

Tips on making hay

1. Cutting the pasture

- Always cut the pasture at least 10cm above the ground.
 - ✓ The remaining grass acts as a platform to help the pasture dry;
 - ✓ Reduces soil contaminating the hay.

REMEMBER: Purchased hay has the possibility of bringing diseases onto your farm (e.g. anthrax which is found in some soils).

2. Drying the pasture

- After cutting, leave the swath (cut pasture) to **wilt for 1-2 days**.
- Once the pasture is wilted, rake the pasture into ridge-like rows (windrow) and leave to dry for 2 more days.
- If the windrow is big, turn the grass to make sure air circulates and dries the hay.



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NOTE:

- i. Stems take longer to dry than leaves.
- ii. Stems of legumes take even longer.
- iii. Legume leaves easily detach when dry, so make sure you dry in a windrow which helps to trap the leaves within the hay.

3. Making hay bales

- On Day 4 check that the swath is dry before baling.
- To bale the hay you will need a ball of twine and a baling box.
- You can make a baling box from wood. Good measurements are 100 x 70 x 70 cm.
 - i. Lay one 3m piece of twine 20cm from either end of the box.
 - ii. Pack and compact the hay into the box to maximum capacity. Then tie and eject the bale for storage



4. Storing the hay

- Store bales on a raised platform and in a **well-ventilated** place to allow air circulation.
- **Don't let the hay get wet** as this can cause hay to rot.
- Prevent the hay from catching on fire by keeping away from naked flames or stopping it becoming mouldy, rotting and getting too hot.

How much hay should I conserve and how much should I feed?

REMEMBER cows should **always have access to roughage** to keep their digestion working.

- Feeding hay off the ground and in a trough (*see right*) helps to keep it clean and avoid wastage.

As a guide cows will need:

- 5 to 10 kg of hay per cow per day, if hay is fed with silage
- 20 kg per cow per day if hay is the only source of roughage.



For more information on feeding plans see *fact sheets F06 and F06A* and on hay racks see *fact sheet F03*. 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).