Tips for Hay-making

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In farming, being prepared for more difficult times is essential. One of the things a smallholder livestock farmer can do is to prepare enough animal feed for the dry or cold season. You can turn forage into hay to make sure you have enough high-quality feed the whole year round. The tips that you will find here will assist you in small-scale hay-making. Hay in the barn is like having money in the bank.

**Tip:**
Well prepared hay is high-quality animal feed and will increase your production and improve the health of your animals.

Steps in hay-making:

1. Cut
2. Dry
3. Rake
4. Collect
5. Bale
6. Store

**Crops that can be used for hay:**
- Natural pasture
- Planted grass,
- Alfalfa (Lucerne)
- Clovers
- A mixture of forages

**Tip:**
When you make hay from natural pastureland, watch out for toxic plants.
Harvesting

Cutting the forage at the right time is crucial to make the best-quality hay. Choosing the right time to harvest is a balancing act between making sure there is sufficient forage growth, that you are not harvesting too late for best quality, and that weather conditions are dry. Harvest at a flowering stage of 25 to 50 percent.

**Cut too early**, when the forage is not very tall, and the hay will have a high moisture content, and there will not be a lot of material.

**Cut too late**, and the quality will be low, the taste will be reduced, protein levels will be low, and losses will be higher.

As you need to dry the hay for several days (see below), the correct weather conditions are essential.

Cutting the forage

The forage can be cut by using a sickle, scythe or mechanized equipment. The minimum cutting height is 10 cm.

Drying, raking and collecting

To achieve good drying, around two to three days of good weather are needed. Sunshine, wind and low humidity all help with the drying process. After cutting, place the material into small heaps or rows about 20-30 cm high and turn (or rake) the heap once or twice a day.

**Tips:**

- Consider additional drying of the hay in the barn, stack or bale if the hay is not yet dry enough in the field.
- Where possible, drying should be done under shade so that the dried fodder retains its green colour.
- If the rain has started unexpectedly, you should gather the hay in bigger rows or stacks so that less hay will get wet.
When is the hay dry enough?

Ideally, the hay should keep its green colour. If the hay is not dry enough, it lowers the feeding value and can cause fires.

<table>
<thead>
<tr>
<th>30-40%</th>
<th>25-30%</th>
<th>20-25%</th>
<th>15-20%</th>
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<tbody>
<tr>
<td>Leaves begin to rustle (a soft crackling sound), but do not appear moist unless rubbed hard. If a stem is scratched with a fingernail, moisture shows easily. Twist the leaves and moisture will show, but not easily.</td>
<td>The hay rustles; twist a bundle, and it will snap with difficulty but doesn’t show surplus moisture. The thicker stems may show some moisture when scraped with a fingernail.</td>
<td>The hay rustles readily; twist a bundle, and it will snap easily, leaves shatter, and there are few moist stems. Bark on the stems cannot be lifted with a fingernail.</td>
<td>The hay fractures easily. Twist a bundle, and it will snap easily. There is almost no moisture anywhere, and the leaves shatter easily.</td>
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Too wet  | Too wet ready for raking  | Slightly too wet  | Stop raking Ready for collection

Tip:
If you think the forage is too dry, you may have to wait for the evening dew to bring back some moisture.

Tip:
Consider making silage if your hay is too wet.

To bale or not to bale?

Hay can be stored as loose hay or in bales. Storing loose hay takes up quite a lot of space; bales take up less space. To bale hay, you can use a wooden frame, a manual bale press, or a mechanized baler.

Storage

Hay should be stored in a sheltered place, away from direct sunlight and rain. Wet hay can easily develop rot, and adequate ventilation is essential.

Quality check

Before you feed hay to your animals, it is essential to do a quality check. High-quality hay should be leafy and greenish, have no foreign material, and smell good.

Tip:
- When checking the quality, break the pile or stack open; don’t just judge the outside.
- Poor hay is better than no hay. You may still be able to feed it and you can increase nutritional quality by adding concentrates. If it’s too poor, it can be sold as fuel or used for straw.