

Dairy Pipeline

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A little extra effort and attention devoted now to harvesting top quality hay and haylage will return big dividends for the following year.

Cows need top quality forages for top production! You spend only a few days a year harvesting your hay crop, but your cows continue to harvest your hay crop every day of the year when they convert it into milk. Remember, as a dairyman, you are in the business of harvesting hay as milk. Cows cannot be expected to produce more milk than the quality of the hay crop permits.

The time to harvest first-cuttings is upon us! So, now is the time to focus your efforts upon putting up the best quality forage possible. To accomplish this, it is necessary to recognize which jobs are most important, and then performing those operations on time — easier said than done.

For top quality, alfalfa should be harvested in the bud stage of maturity and grasses in the boot stage. As maturity progresses beyond this point, feed value starts declining rapidly.

Unfortunately, we seldom have desirable weather for curing forages at the time when first cuttings should be harvested. This means we usually have to take every opportunity of breaks in the weather when they occur. These weather breaks are free; we can't buy them and we can't schedule them.

We need better weather conditions for curing a hay crop than we do for planting corn, working ground, etc. So when the weather is suitable for making hay, it will probably be more profitable to make hay than to plant corn.

Remember, the quality of your hay will affect your cows milk production (your profits) every day of the year.

Delaying corn planting may reduce corn yields slightly, but chances are it won't affect the quality of the silage harvested. Furthermore, what you may lose in corn yields you'll probably make up in additional hay yields, because the early harvest will probably result in an extra cutting of hay.

Haylage has enabled many farmers to harvest their first cutting on time in spite of less-than-desirable weather conditions. However, haylage does not fit into every farm situation because of the high cost of equipment, machinery and storage units, the losses resulting from damaged hay crops may be less expensive.

One word of caution when harvesting alfalfa, it may be necessary to compromise between top feed quality and life of the stand. Continually

harvesting alfalfa in the bud stage of maturity may weaken the stand and shorten its longevity. Thus the first cutting of a new seeding, or any cuttings from weakened stands, should be made in the bloom stage of maturity.

To maintain their vigor, stands that are frequently cut in the bud stage must be free from insects, weeds and diseases, and they must be well fertilized.

Moisture at time of harvest is also very important for hay and for haylage, and the only accurate way of determining this is by using a good moisture tester. They will be inconvenient to use during the busy harvesting operations, but they are a very valuable tool to help guide harvesting decisions necessary for top quality forages.

For less field losses, for less heat damage to protein, for improved energy use, and for less secondary fermentation and spoilage, haylage should be ensiled at about 55 to 65 percent moisture (35 to 45 percent dry matter), and hay should be baled at about 20 to 22 percent moisture.

Moisture is constantly changing in the windrow. Thus, one will have to start early, at the higher moisture level, and work fast. When the moisture falls to the lower level, it may be necessary to quit temporarily, waiting for the hay to pick up more moisture. Or, large quantities of water can be added at the silo.

How much water is needed? To raise the moisture content of one ton of 45 percent moist haylage to 55 percent moisture will require about 56 gallons of water.

To prevent excessive leaf shatter and loss of feed nutrients, hay should be baled at about 20 to 22 percent moisture. At this level, the bales should be loose so they can dry down, and to prevent heating and spoilage. Above this level of moisture, preservatives can be relied upon to preserve feed quality, to help prevent spoilage and spontaneous combustion.

Raking should also be done when the hay is damp enough to prevent leaf shatter.

When ensiling a hay crop, length of cut is also important. A 3/8 inch theoretical cut is recommended for good packing and for preserving, what I term, the "forage factor" of the forage. This is necessary for maintaining good rumen activity and good fat test. To achieve a uniform cut, sharp knives are necessary. Rapid filling also prevents spoilage and promotes better quality.

Now that you have gone to all the expense and effort of growing the crop, harvesting it, and preserving it for top

quality, let's make sure your cows will make the most efficient use of the feed nutrients you have "put up" in storage.

Test those forage crops for nutrient content at or shortly after harvest time, while you can get to them. Then, you will be able to balance your feed rations and have a feeding plan in your hand ready to use when you need it. That enables you to get maximum mileage (milk) out of your forage, and out of your cows.

Haylage, put up at 60 to 65 percent moisture, can be sampled at filling time. Grab samples from several loads throughout filling time. Immediately put them in a moisture-proof bag and stick them in a refrigerator or freezer. When filling is completed thaw the bags, mix them together, and submit a sample for analysis.

Once you have been feeding the haylage for a while, additional samples from the silo can be submitted periodically for further refinement of the feeding program.

Hay can also be sampled at baling time. Randomly select bales from the wagon and throw them aside for sampling at a later time after they have dried down. A hay sampling auger should be used to collect the sample.

Identify the batch of hay and note where it is stored in the mow. Sample alfalfa or alfalfa mixtures separately from grass or grass mixtures. Similarly, sample first cutting separately from aftermath (second, third and fourth) cuttings.

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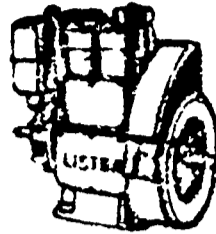


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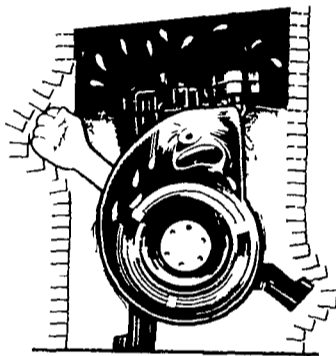
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