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Making and Feeding Alfalfa Haylage

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Making and Feeding
Alfalfa Haylage

Interest in making and feeding alfalfa haylage is increasing considerably. General suggestions are presented here for handling this form of roughage.

Haylage is partially dried alfalfa—usually 35 to 50% moisture—which is chopped and handled similarly to alfalfa silage except that it is wilted more in the field before ensiling.

Research at South Dakota State College shows minimum field losses of nutrients with the haylage system. Many times first cutting alfalfa loses much of its feeding value as a result of rains after it is cut. Much of this loss occurs after the alfalfa dries lower than 40% moisture, when leaves and carotene disappear; thus total losses are less for haylage than for hay.

In addition, milk production, dry matter consumption, and body weight gains favor alfalfa haylage when compared with other methods of handling, but especially silage. Alfalfa haylage can be handled mechanically and use of silos can be extended. Freezing problems are lower with haylage than with silage and less weight needs to be handled than with silage. Haylage has a more desirable odor than higher moisture alfalfa silage.

The following suggestions should be helpful to those who are interested in putting up haylage.

1. Cut the alfalfa at bud to early bloom stage of maturity.
2. Wilt the alfalfa. If dried in a swath and crimped, most rapid drying occurs. However, reduced field trips can be made by cutting with a swather. Sometimes windrow curing is difficult, especially where the stand is thick and the weather is humid and rainy.
3. If not windrowed, rake when the alfalfa plants are tough, about 50% moisture.
4. Chop the haylage fine, using sharp cutter knives set for as short cut as possible. Long-cut material may be difficult to unload, to blow, and to unload from storage mechanically.
5. Haylage can be successfully made at 30 to 50% moisture. About 30 to 40% moisture appears best in sealed storage. Low moisture levels usually result in high field losses. High moisture means silage which does not have the palatability of haylage. Also, more moisture needs to be handled, foul odors occur, etc.
6. Use covered trucks or trailers to reduce wind losses. Allow for air escape from trucks or trailers, using fine screens near the top.
7. Store the alfalfa in structures as air-tight as possible. This is extremely important.
8. In open-topped silos a mechanical distributor works best. Coning-up in the center (not at one side) in the silo, with frequent leveling is next best.
9. Fill as fast as possible, without long delays, to exclude air. Do not let haylage overnight on trucks or trailers as this means double air removal by carbon dioxide replacement of plant cell respiration and less efficient preservation.
10. Any air intake such as cracks in silos and poor doors may cause trouble in spoilage. Some silos may need to be replastered or treated with some of the newer plastics, etc. Seal the large cracks in wood silo doors. A plastic sheet, 2 mil thick, 3 feet wide, unrolled on the inside of the doors at filling time has been very effective in reducing losses.
11. In open tower silos top the silo with heavier, wetter alfalfa to aid in settling and sealing. Seal with a plastic cap. This can be weighted with low-cost material chopped fine. The plastic must be tight to the silo wall. Dig down about 2 feet at the silo wall.
12. It may be best to seal haylage for 3 or 4 weeks for fermentation to take place. However, for summer feeding immediate feeding after filling has been successful. A mechanical silo unloader with uniform removal daily works best.

13. Herd size or number of animals eating haylage should be so that 3 or 4 inches of haylage is removed daily from open-topped units. Considerable height of haylage is essential to good compaction and air removal at filling time.

14. Don’t put low moisture alfalfa in trench, bunker, or slat cribbing, bale or pile silos. Haylage requires much more air-tight conditions, better packing, etc., than is possible with such silos.

15. Haylage can be fed as part or all of the forage. Alfalfa haylage is exceptionally high in protein. Feeding on only haylage may waste protein. A good ration for cows producing 50 to 60 pounds of milk is 20 pounds alfalfa haylage, 5 to 10 pounds of good alfalfa or alfalfa-brome hay, 50 pounds of corn silage, and 15 to 20 pounds of concentrate mixture about 12% crude protein. If more haylage is fed, reduce the protein in the grain mixture.

16. Alfalfa haylage is high in calcium, relatively low in phosphorus. One percent of the grain ration should contain a high phosphorus mineral.

17. Very little if any grain should be fed to dairy heifers when high quality haylage and corn silage are fed. Some low protein, poor quality roughage such as corn stalks or grass hay can be utilized along with alfalfa haylage for yearling heifers.

18. Feed haylage as much of the year as possible. This reduces the costs of storage and mechanical handling per ton and per year. A big advantage of haylage is that it can be cut more nearly at the best stage of maturity in contrast to green-chopping or pasturing.