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Better Feed from Good HAY

The North Dakota Agricultural College
EXTENSION SERVICE
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MAKE GOOD HAY

FEW FARM OPERATIONS ARE SUBJECT TO MORE DIFFICULTIES THAN PUTTING UP HAY OF GOOD QUALITY. AN UNDERSTANDING OF WHAT PUTS THE "FEED VALUE" IN HAY WILL EMPHASIZE THE RELATIVE IMPORTANCE OF THE VARIOUS HAYING OPERATIONS.

STATE OF MATURITY Cutting at the proper stage of development determines the feeding quality and value. Putting hay up at the right stage will often affect the feeding value more than the kind of hay being grown.

CUT EARLY Feeding value is often sacrificed by cutting too late. Larger tonnage may be obtained from cutting in the more advanced stage, *but the feeding value, digestibility and palatability are often reduced to more than offset the increased tonnage.* Younger plants have the most nutritional value, so hay should be cut when there is the best balance between the feeding value and yield. Preferred cutting stages are:

CRESTED WHEATGRASS--When beginning to head. Should be cut in earlier stage than other grasses for best quality.

BROME, WESTERN WHEAT OR SLENDER WHEAT (WESTERN RYE)--Cut just after heading and while still in blossom.

ALFALFA--Cut when about 1/10 in bloom.

SWEET CLOVER--Cut in early bud stage.

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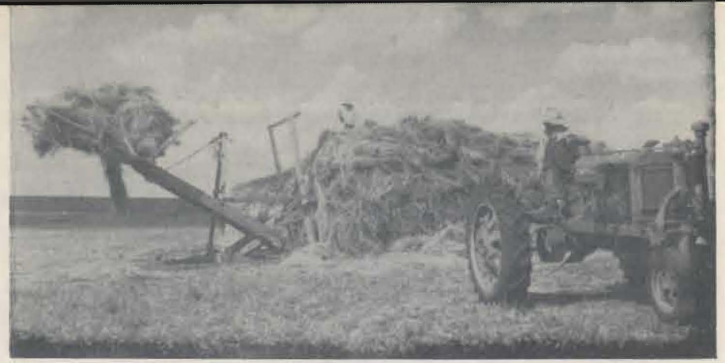

ANNUAL CROPS

MILLET--Cut in early bloom stage, before seeds form.

OATS AND OTHER CEREALS--Cut when seeds are in soft dough stage.

Cutting at these particular stages may not always be practical. It can be expected, however, that the feeding value is less in later stages of maturity.

LEAFY HAY MAKES BETTER FEED The leaves contain more protein than stems. This is particularly true of legumes. Alfalfa leaves have twice as much protein, calcium and phosphorus as do the stems. Hay should be cut before there is loss of leaves in the field. Rapid curing and careful drying and handling will result in the least loss of leaves and furnish higher quality hay.

GOOD HAY IS GREEN Natural green color indicates early cutting, good curing, high palatability and a high carotene content. Carotene determines the vitamin A strength. Bright green hay supplies the animals with vitamin A which is lacking in other than green feeds. Vitamin A is necessary for growth and reproduction, and is an essential requirement of winter feeds.

Get Further Information From Your COUNTY AGENT

GET BETTER FEED

CURE RAPIDLY Haying should begin at the stages already mentioned. Cut no more than can be handled quickly. Cutting after the morning dew is advisable. Rapid curing reduces losses from bleaching, rain or heavy dews. Drying is quicker in the swath, but hay should be raked before it gets so dry that leaves will break off in raking. After wilting, rake the hay into windrows for more complete curing. In this way, more leaves can be saved. Avoid making windrows too large. The passage of air through the hay is necessary for most rapid drying.

While there is no machine that fully replaces good haying weather, yet the side-delivery rake is a very efficient substitute. Greater uniformity of drying results by use of side-delivery rake. The entire swath is turned and with less shattering loss. Alfalfa and sweet clover, due to coarser stems, cure more slowly. Since the leaves have the most nutritive value, side-delivery rakes are particularly valuable in handling legume hay to advantage.

WHEN IS HAY READY FOR STACK OR BARN Hay is safe to stack when the moisture content is less than 25 percent. There is no simple farm method to determine the moisture content. However, when a handful of hay having over 25 percent moisture is twisted, there is moisture where the stems are broken. But, if there is no moisture visible and the stems are slightly brit-

Green, Leafy Hay — Stored Carefully — Has Greatest Feeding Value

Save Feed Supplies

tle, then the hay is safe to store. Examine the center and bottom of the windrow to determine whether dry enough for storage. When hay is to be stored in barn, precaution should be taken that the hay is sufficiently dry. If the hay is not dry enough, the excess moisture is likely to result in moldiness, as well as to become a fire hazard.

SIZE OF STACK Small narrow stacks can handle hay of somewhat higher moisture content. However, with small stacks a larger proportion of the surface is exposed to weathering, which lowers the feeding value of the hay. Larger stacks, where practical, are preferred, as such stacks when carefully built will preserve the hay with the least loss from weathering. Because of this, reserve supplies of hay to be kept several years should be placed in large stacks.

Build Up Reserve Feed Supplies in Favorable Crop Years for Use in Less Favorable Years

BALING IN THE FIELD Some growers are baling hay direct from the windrow. The moisture content must be lower for baling because of less aeration in the bale. Unless sufficiently dried, molds and fermentation will reduce both feeding value and palatability. Bales should stand in field with plenty air space about them to cure.

Feed Brings Security

In stacking, the bales should be turned on edge with the first layer of bales in one direction and the next, in the other direction. Small space left between the bales will insure air passage. Advantage of baling is mainly in conservation of storage space. Storage capacity is increased by at least 50 percent by baling as compared with loose hay.

CHOPPED HAY Another means of conserving storage space is by chopping. Chopping results in less wastage of stemmy, low grade hay in feeding. The chopped hay, to store safely, must be drier and not have over 19 percent moisture. Some allow the hay to first cure in the stack. Hay chopped into lengths of one inch or more can be stored with greater safety. Shorter lengths pack together and do not permit as free air circulation, increasing hazard of fermentation and loss of feeding value. In filling a mow with chopped hay, the floor must be well-supported, since chopped hay is much heavier than loose hay, requiring only about one-third the space for same weight of loose hay.

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