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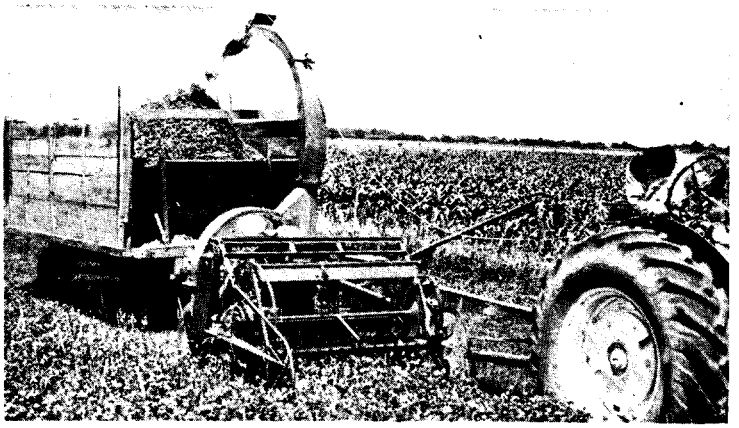
GRASS-LEGUME SILAGE

cuts feeding costs



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WHY GRASS-LEGUME SILAGE & HAYLAGE?

For years farmers have tried to put up high quality green leafy hay to hold as much of the feed value in the original grass, alfalfa or clover as possible.

The big drawback is lack of good haying weather in June.

If your crop is damaged by wet weather when curing, the losses in feed value may run as high as 40 or 45 per cent.

New methods of putting up livestock roughage as grass or legume (alfalfa or clover) silage or haylage save more of the original feed value than any other method of making hay.

Legume silage or haylage fed with corn silage and hay make an excellent combination for feeding livestock.

Legume silage or haylage supplies needed protein and corn silage supplies needed energy.

MAKING GRASS AND LEGUME SILAGE

Crops to use:

Any crop that can be made into hay can also be made into silage.

Crops that have been successfully made into silage are alfalfa, sweet clover, grass-legume mixtures, tame and wild grasses, cereal grains (oats and barley), oats and field pea mixtures.

WHEN IS BEST TIME TO CUT CROPS FOR GRASS SILAGE?

Cutting grass at the right time is one of the most important requirements of good grass-legume silage.

- Cut sweet clover in at least 1/2 bloom and alfalfa or grass-legume mixtures when 1/10 to 1/2 the plants are in bloom.

- Cut grass for silage just before bloom – when the flower head has just come out of sheath.

- Cut barley and oats, or oats-pea mixtures, in the late milk or early dough stage.

Grass and legumes cut later (1) are lower in feed value (protein and minerals), (2) take more power to chop and (3) may get too dry to make good silage or haylage. When crops are ensiled too ripe or too dry, the silage or haylage molds.

WHAT ABOUT MOISTURE IN SILAGE & HAYLAGE?

Haylage should be cut very fine – 3/8-inch is ideal – and stored at about 45 per cent moisture. The straight legume haylage should be wilted some before it is chopped. The 3/8-inch cut is best. The moisture test can be taken at an elevator. Remember that speed is necessary in putting up haylage at the right moisture content. Don't cut more than you can handle. Horizontal silos or temporary silos are not recommended for haylage.

WHAT ABOUT PRESERVATIVES?

- Haylage can be made without adding a preservative.

- Good silage can be made with or without the addition of preservatives, such as ground grain or molasses.

- No preservatives are needed when mixtures of grasses and legumes are made into silage.

- No preservatives are needed for straight grasses or grain crops.

- Straight alfalfa or sweet clover silage will benefit in quality by the addition of preservatives. It will be greener, higher in feed value, taste better, and have a more desirable odor when preservatives are used. Add preservatives at the rate of 150 pounds of coarsely ground grain or 60 pounds of molasses per ton of silage.

WHAT ABOUT WILTING GRASSES AND LEGUMES?

North Dakota crops are generally lower in moisture than the same crops in other states. Experience here has shown that wilting crops for grass silage is not necessary. Irrigated alfalfa and clover may be exceptions.

WHAT TYPE OF SILO?

Good grass or legume silage can be made successfully in any kind of silo, if proper care is taken to pack it well and keep the air out of the silage.

Silage put into a trench silo has been equally as good as in an upright silo, if the top is properly sealed. Provide ample drainage in a trench silo so the lower part of the silage does not become waterlogged, off in odor, or sour.

Temporary silos may be used in an emergency to store extra amounts of silage or for putting silage in areas where an upright or bunker silo is not accessible.

Temporary silos of snowfence, welded wire, bales of hay or straw will work satisfactorily, depending on the care used in building, in packing the silage and in topping.

Experiences have shown that it is advisable to feed out silage in temporary silos first. Upright or trench type silos are better for carrying over feed reserves from year to year.

Silage has been stacked in emergencies by farmers in North Dakota. In some cases it has been successful and in some cases it has not been successful.

Grass silage puts more pressure on silo walls than does corn silage. If you use an upright silo, get information from the manufacturer as to its strength for grass silage or fill only 2/3 full.

WHY PACK AND TOP THE SILAGE?

Packing is necessary to remove air pockets and reduce spoilage.

Less spoilage occurs when heavy green material is used in topping than when using a dry material such as straw. A plastic cover placed over upright, bunker, trench and pit silos will tend to hold the moisture and prevent spoilage. The cover should be anchored well. Dirt topping is best for long-time storage.

Trench and stack silos should be covered with a polyethylene cover. When the cover is put on and tied down properly, the amount of spoilage will be reduced considerably.

Use either 4 mil. or 6 mil. film polyethylene or equivalent. Commercial plastic covers are available for trench and upright silos.

WHAT EQUIPMENT IS NEEDED FOR MAKING GRASS SILAGE?

A field chopper, with straight cutter bar and reel or pickup attachment, is ideal for handling grass silage.

A grain swather works well on sweet clover and coarse alfalfa. It cuts and windrows in one operation with little chance of picking up stones. A mower with windrow attachment may be used to cut the grass or, windrow it with a side delivery rake immediately after mowing.

Set field chopper to cut grass in about 1/2 inch lengths. Cut grass silage fine – this will improve packing and reduce spoilage. Small windrows pick up better with less plugging.

Self unloading wagons or dump trucks to haul and unload the silage work best.

To fill temporary silos, a bale elevator or large corn elevator may be used in place of a blower. Less power is needed with an elevator. However, an elevator with a narrow throat between the hopper and elevator may not work satisfactorily.

IMPORTANT: Regardless of equipment used – wilting of grass or legumes, or any undue delay in getting silage into the silo after cutting, may result in excessive drying of leaves and spoiling of silage.

WHY GRASS LEGUME SILAGE APPEALS TO MORE AND MORE FARMERS

- It is the nearest thing to grass pasture you can feed – winter or summer.
- Saves more of the over-all feed value, protein, vitamin A and minerals. All are badly needed by livestock during winter.
- Supplies a source of home grown protein.
- Beef cattle and sheep can be wintered on sweet clover and alfalfa silage without the addition of a protein concentrate.
- Increases milk production. Less grain and protein are required when cows are fed grass-legume silage.

- It produces more nutritious milk and other animal products.
- It encourages livestock to eat more and adds variety to the ration.
- Weedy or stemmy crops which make poor hay produce fair silage.
- Grass-legume silage can be made with little risk of weather damage.

Grass-legume silage is good for your land, good for your livestock, good for you and good for the consumer of animal products.

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