

Cornstalks sub for expensive hay

NEW HOLLAND — The drought of 1983 and low cattle prices have given cattlemen a double punch. The high hay prices resulting from the drought are a special handicap in view of the low beef prices, says Dick Salisbury of Sperry New Holland.

But cattlemen can substitute corn stalks and other lower quality forage for some of the hay their herds would ordinarily eat. There

are a number of ways to work the trick.

Salisbury, who is product manager for round balers at New Holland points out, treating baled stalks with anhydrous ammonia in the stack, under a plastic seal, boosts protein and aids digestibility. Vitamin and mineral needs must be met, too, but the processed stalks can then provide most of the winter nutrition for a beef cow herd.

Grinding lower quality roughage also improves its usefulness. Grinding doesn't really improve the quality much but it does increase the amount the cow can process through her digestive system. This help her get by on poorer quality roughage. Grinding has the further advantage of easy blending with small amounts of high quality hay for optimum utilization.

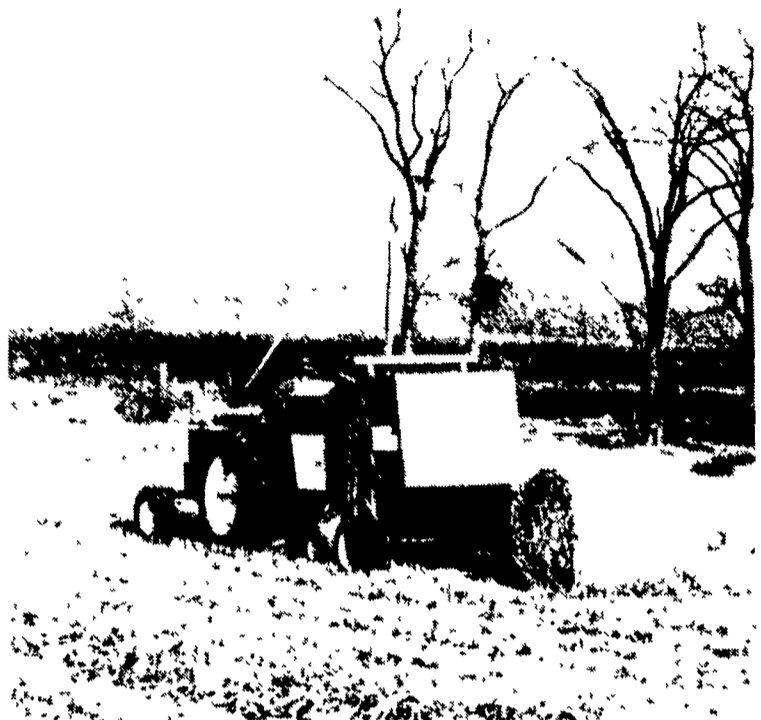
The first step in feeding stalks is to get them into the bale after combining. Baling cornstalks isn't quite as easy as baling hay. But it's not a problem if stalks are prepared carefully.

For optimum performance in corn stover, the material should be as long as possible, and not over-conditioned. For good bale core formation, the material should have a tendency to cling or have sufficient length to help hold itself together.

Many farmers will want to use a flail cutter or chopper to mow the stalks for baling. A disc mower can be used. If this practice is followed, it is very important the operator rakes two or three windrows together.

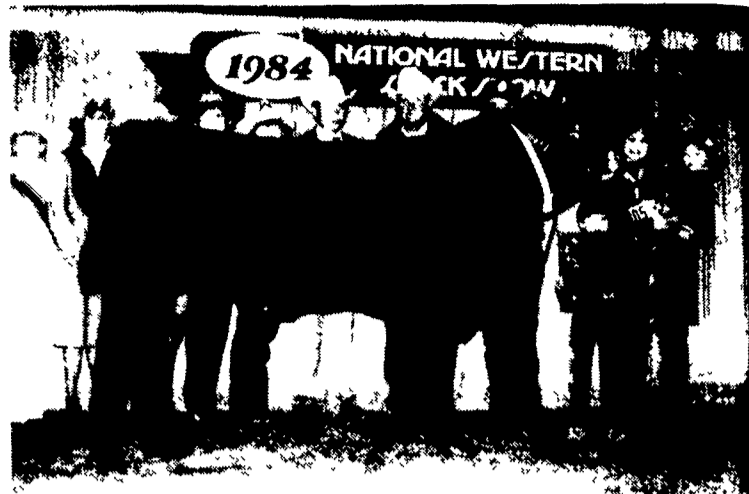
During core formation, reduce the PTO speed to approximately 300 RPM, maintaining the same ground speed or slightly higher if tractor and ground conditions permit. Once the core formation is completed, the RPM can be increased back up to 540 RPM. This will normally allow complete bale formation to be made with very respectable bale density.

The stalks should be dry enough to store well without mold. Then, they can be a cost-saving asset in maintaining a cow herd that's hard to justify if the alternative is to buy expensive hay.



This roll-floor chain-type round baler moved into the cornstalks without any adjustments from hay. The stalks were cut with a disc type mower and were relatively coarse. Fine chopped stalks may be a problem if the materials is excessively dry.

Limousin champions named



Winn Pennicle, the 1984 grand champion bull of the National Limousin Show and Sale, sold for \$20,500 to Wulf and Sons, Morris, Minn. The Sept. 2, 1982 747 son was consigned by Winn Limousin, Indianola, Okla.



Ox and W. Limousin, Huron, S.D., consigned the grand champion female of the 1984 Limousin sale show at the National Western Stock Show in Denver, Jan. 12 OXNW Belle 773P, a Feb. 19, 1982 Canadian Pacific daughter, was purchased by Glenmore Farms, Keswick, Va., for \$27,000. The overall average for the sale was \$11,250, a new breed record.

Mushroom industry wastes useful as Livestock feed

UNIVERSITY PARK — Two mushroom industry wastes, spent mushroom compost and mushroom stumps, have been found effective as feed for beef cattle and sheep.

Spent mushroom compost should be valuable primarily in maintaining mature animals with lower nutrient demands than younger, growing animals, stated Lowell L. Wilson, animal scientist with the College of Agriculture at The Pennsylvania State University.

"Diets containing mushroom stumps and possibly a minimum amount of mushroom compost, less than 15 percent, should do well for young animals with high nutritional needs," Wilson added.

In Penn State experiments, the most efficient way to use mushroom wastes was to ensile them in combination with conventional feeds. Silages of acceptable quality were made from mushroom wastes and chopped hay. Corn grain was added to provide increased carbohydrates for good silage fermentation.

Weight gains of sheep fed mushrooms in silage were lower than weight gains of sheep receiving a standard hay-grain diet. However, mushroom wastes used at one-fourth to one-third of the diet were found adequate.

Experiments using mushroom wastes as feed supplements are the latest among several studies of waste recycling at Penn State. Other research has tested feeding of poultry litter, forestry byproducts, apple and tomato wastes, cocoa hulls, and sweet

corn and pea wastes. Such byproduct feeds reduce costs for cattlemen while solving some waste disposal problems, Wilson said.

Spent compost was 46 percent dry matter and stumps were 14 percent dry matter, as received from mushroom growers. Crude fiber of compost, 47 percent, was similar to poor quality hay or straw. Crude fiber content of the mushroom stumps, averaging 21 percent, was similar to high quality hays and silages.

Wilson and associates found that

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silages containing spent mushroom compost must also contain about 25 percent corn grain to ensile properly. If mushroom stumps replace at least one-half of the mushroom compost in the silage, then the amount of corn grain can be reduced.

The amount of digestible energy consumed was greatest on the standard hay-grain diet. For example, lambs on mushroom waste rations in three trials had average energy intakes of 80, 73,

and 85 percent of the energy consumed by lambs on standard diets.

"Lower daily gains of lambs fed silages containing mushroom wastes was due largely to the lesser amounts of digestible energy consumed," Dr. Wilson affirmed.

Megacalories of digestible energy consumer per pound of gain, a measure of feed efficiency, were also greatest for the standard hay-grain diet.

Cooperating on the study were Dr. Harold W. Harpster and Mildred L. Turner, both with the Department of Dairy and Animal Science at Penn State.

Ash content, averaging 56 percent of compost and 30 percent for mushroom stumps, was extremely high compared to standard feeds. This resulted in a relatively low level of digestible

energy in the wastes.

Wilson said the calcium-to-phosphorus ratio was also extremely high for both waste materials. Additional phosphorus should be fed with these wastes, he suggested, to produce a ratio closer to the desired levels of two parts calcium to one part phosphorus.

Crude protein averaged 11 percent for compost and 20 percent for the mushroom stumps. This should meet the needs of most types and ages of beef cattle, it was pointed out.

However, acid detergent fiber-bound protein — generally unavailable even for ruminant animals — averaged four percent for compost and four percent for stumps. This resulted in available protein levels of seven percent for compost and 16 percent for mushroom stumps.

Blue ribbon Hereford Show March 31

ITHACA, N.Y. — Polled Hereford and Hereford breeders throughout the Northeast are invited to nominate consignments to the Blue Ribbon Show and Sale March 31 at the Livestock Pavilion on the Cornell University campus.

Nominations for the Show and Sale which are jointly sponsored by the New York Hereford Association and the New York Polled Hereford Association are due Jan. 26, according to chairman Donald Dean of Naples.

Dean said he anticipates at least five select bulls — all top-notch herd sire prospects will be offered in the March 31 sale. He also expects to catalog 45 females including open and bred heifers, open and bred cows and cows with calves at side.

Dean said the Blue Ribbon Show at 10 a.m. and the Sale which will begin at 12:30 p.m. will feature the top bloodlines and quality performance that will meet the event's goal of "herd improvement."

Dean said all of the cattle nominated will be screened on the farm by his sale committee. Working with Dean on the committee are Robert Generaux of Canandaigua, Ted Kriese of Cato, and Jim Conway of Little Falls - all of New York.

Nominations accompanied by a \$20 fee per head and registrations are to be mailed to Donald Dean, P.O. Box 417, Naples, N.Y. 14512 by Jan. 26.

