

*From Dairy Herd Management Conference*

# Here are considerations with high moisture feed

**BY SALLY BAIR**  
**Staff Correspondent**  
**UNIVERSITY PARK** — Larry Chase, department of animal science, Cornell University, said high moisture corn is emerging as an important component of the feeding programs on an increasing number of herds. He called high moisture corn "one option to produce more concentrate energy."

Chase was speaking to dairymen at Penn State's Dairy Herd Management Conference.

Chase cautioned, however, that "management will be the key to success," and said it will take a lot of management time to get it to operate properly.

One big advantage of high moisture corn is that it is harvested at a higher moisture content than dry corn, which means a two-to-three week earlier harvest. This decreases field, weather and harvesting losses, and may increase yields. The whole process lends itself well to mechanization.

Since high moisture corn is being used on an increasing number of farms as the primary source of concentrate energy, and is often

used as a substitute for commercial feeds, it may lower the purchased feed cost, Chase noted.

There are disadvantages to high moisture corn.

Chase said it is low in protein and minerals, which means "dairymen must do a sharper job of putting a feed package together." He said high moisture corn must be considered a concentrate feed that needs high mineral supplementation.

It also has a limited shelf life once removed from storage and it is difficult to market if there is excess.

High moisture corn should be harvested 60 to 65 days after silking. High moisture shelled corn should be harvested ideally when moisture content is between 25 and 30 percent, and high moisture ear corn should be harvested at a moisture content of 30 to 35 percent.

Chase pointed out that high moisture corn can be successfully stored in oxygen-limiting, conventional or horizontal silos. In one study, dry matter recoveries averaged 93 percent in oxygen-limiting silos and 87 percent in conventional silos. In an emergency, acid preser-

vation has also been used successfully.

Chase said it is of utmost importance to select a storage structure based on herd size, so that a removal rate can be used which keeps spoilage to a minimum. He said good high quality moisture corn can be produced in any of these storage alternatives.

One of high moisture corn's advantages is that it can be stored and harvested in many ways.

How does high moisture corn affect milk production?

When compared on a dry matter basis there is no difference in the average daily milk production of cows on fed dry, ensiled or acid treated high moisture corn. Chase said, "You can get suitable production if managed properly."

Chase told the dairymen that high moisture corn can be incorporated into dairy rations in a number of ways. If the same amount is fed to all cows, it may be difficult to balance rations for proteins and minerals and may result in over-conditioned cows. Feeding equally means feeding 15 pounds of high moisture corn per cow per day or less, Chase said.

Feeding high moisture corn can be varied according to milk production. This, too, has some limitations, including the fact that it is difficult to feed in parlors. It allows cows to select feeds and may lead to palatability problems.

In this option it is best to place the high moisture corn

and supplement on top of the forage and hand mix them.

If high moisture corn is mixed with the supplement, palatability and sorting problems are minimized. Nutrient utilization is improved and it provides a better control of nutrients actually consumed.

According to Chase, the

ideal option for optimum utilization of high moisture corn is to blend it into a completed ration. Thus, he said, will minimize palatability and sorting problems and provide a more uniform flow of nutrients into the rumen which improves nutrient

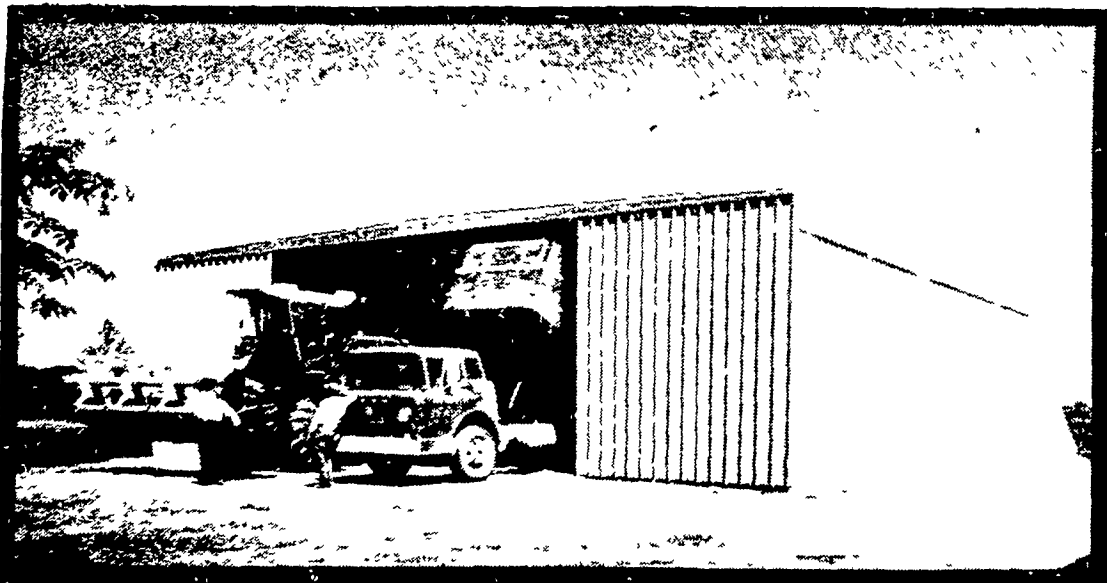
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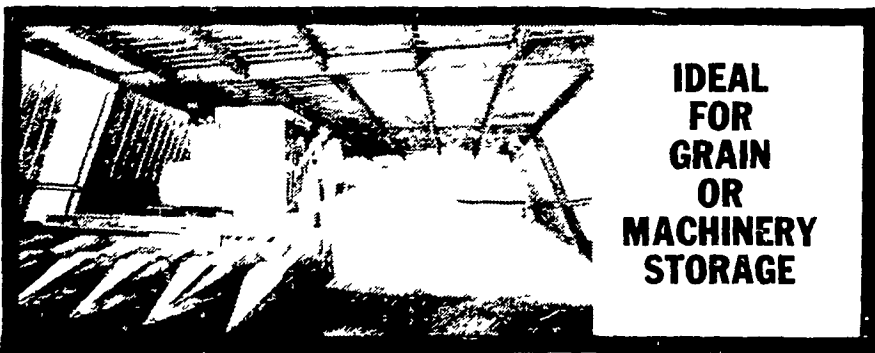
Penn State Vet Larry Hutchinson, left, chaired the Friday program at the Dairy Herd Management Conference. Among speakers on the program were, from left, Robert Appleman; Cy Card; and Richard Warner.

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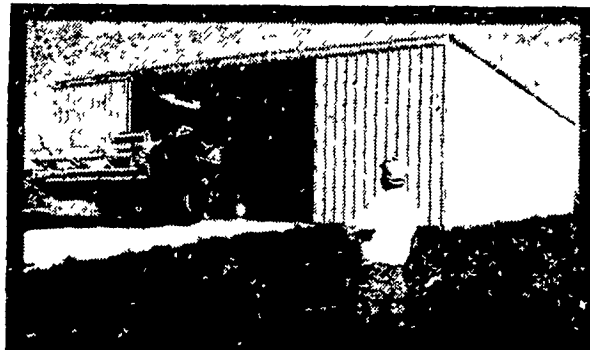
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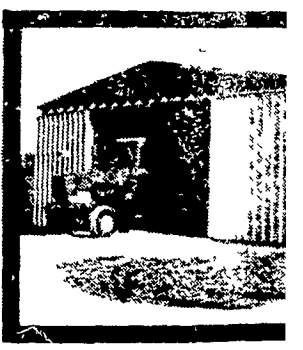
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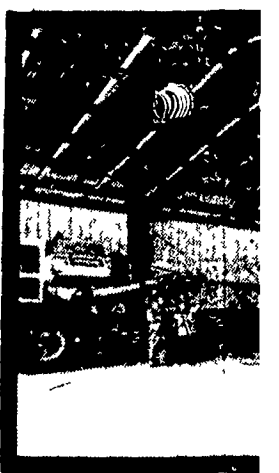
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