

# Processing 'wastes' prove valuable feed stuff

UNIVERSITY PARK — Wastes from factories processing fruits and vegetables could help feed large numbers of livestock and dairy cattle in Pennsylvania this summer in case of a drought, says Lowell L. Wilson, animal scientist at Penn State.

Such wastes from fruit and vegetable processing make excellent feed for farm animals, Wilson claims. He and associates in the College of Agriculture have tested several materials for use as animal feeds, including refuse from apples, sweet corn, peas, and tomatoes.

Two other suitable animal feeds, it was found, are chicken litter and wood wastes from the manufacture of tissue paper. The experiments were carried out within the Agricultural Experiment Station at University Park.

While none of these wastes make complete animal feeds, they can be used to extend "standard" forages and grains used in most livestock and dairy cattle feeding.

Several companies in Pennsylvania process and package a wide variety of horticultural and forestry products. In most cases, wastes from canneries and frozen food plants create disposal problems. Thus, the plant refuse is often available to farmers merely for hauling it away.

"Most of the waste materials we have tested are available in various parts of the state," Wilson commented. "Fed to animals during a drought, such plant refuse not only replaces inadequate summer forage but also helps to conserve scarce corn silage, hay, and grain needed for subsequent winter feeding," he explains.

The various wastes have been studied individually, mostly in beef cattle finishing ration. As an example, apple pomace was found adequate to make up 35 percent of a finishing ration as a replacement for corn silage—provided ad-

ditional protein supplement is fed to balance the cattle diets.

Sweet corn and pea cannery wastes have been used primarily as silage for winter feeding of mature beef cows. In this capacity, they can be used as a complete ration. However, feeding of some hay in limited quantities usually results in better performance and health of beef cows.

One of the most recent wastes materials studied at Penn State was wood fines, which is cellulose with the lignin removed. Wood fines make a high-energy feed for multi-stomached animals (ruminants) such as cows and sheep. These fines are a byproduct from chemical treatment of wood pulp in making tissue paper. The research was conducted in cooperation with a prominent paper company in Mehoopany, Pa.

Wilson's associates in the Department of Dairy and Animal Science have successfully used up to 30 percent wood fines in the diets of dairy cows without a decrease in milk production or its composition. However, wood fines are quite low in protein, it was learned, which means more than normal protein supplement must be fed to produce a protein-sufficient diet with acceptable animal growth and weight gains.

Research carried out at Penn State, as well as findings at other agricultural experiment stations in the U.S., are summarized by Wilson in a new publication, "Handbook of Organic Wastes," by Litton Educational Publishing, Inc., University of Cambridge, England.

The handbook contains 15 chapters on many different aspects of handling and using organic waste materials coming primarily from agriculture.

This research into "recycling" of plant wastes is continuing at Penn State. The team of re-

searchers includes H.W. Harpster in dairy and animal science and Peter Labosky, Jr., in wood science and technology.

These men are currently studying the nutritive value of sawdust from different tree species. They are also examining

the feeding value of potato wastes and other horticultural crops not studied previously.

## Jr. P. Hereford Assn. plans field day

DOVER — The Pennsylvania Polled Hereford Junior Association will be holding their annual field day on Saturday, June 27 from 10 a.m. to 4 p.m. This year's educational and fun-filled event will take place at the JDH Polled Hereford Farm, located 10 miles west of York.

Heading the York County farm's program is County Extension Agent Tony Dobrosky, recognized as an expert in the beef cattle industry.

A fitting and showmanship

demonstration will be provided by Tim Livingston and Bill Fairbairn. And Terry Shearer, manager of Pigeon Hill Farm (Herefords) will be demonstrating the 'art' of tagging and tattooing, with sidekick Don Sunday displaying his expertise in foot trimming.

The ultimate question — "What are those judges looking for in the show ring, anyway?" — will be expounded upon by Sam Hunter, manager of Huckleberry Hall Farm, Smicksburg, Md. (Polled Herefords). And participants at

the field day will get their chance to try their luck in the judge's shoes by taking part in a contest officiated by Don Sunday and Merle Krone.

The grade finale of the day will be the crowning of the 1981 Pennsylvania Polled Hereford Queen.

Prizes will be awarded to the contest winners. And lunch will be available at reasonable cost.



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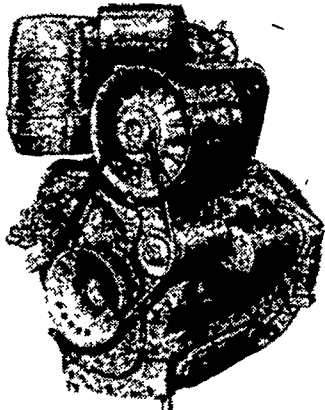
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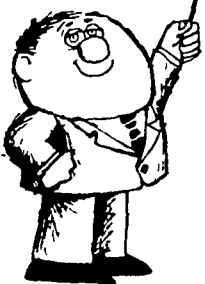
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