

Plant, Animal Wastes "Recycled" for Feed

Animal scientists at The Pennsylvania State University have a new angle on the disposal of agricultural field and processing wastes. They've found that beef and dairy cattle can feed on many wastes once thought to be only a costly disposal problem. And limited surveys indicate the consumer is willing to buy meat from animals fed wastes, especially if prices are lowered by increased supplies.

The animal scientists have studied this method of crop and cannery refuse disposal for several years. They say the use of all poultry litter, crop wastes, and horticultural

byproducts could increase the number of beef calves produced in Pennsylvania by 50 per cent or more.

Over 80,000 head of cattle — valued at more than \$16 million — can be fed from weaning to slaughter age on the wastes accumulated at factories processing potatoes, apples, peas, sweet corn, tomatoes, and grapes.

Many growers and processors of horticultural, forest, livestock, dairy, and poultry products are now faced with investments in waste and pollution control equipment. Recycling many of these wastes as livestock feed could reduce the pollution potential and increase beef production at the same time, say Dr. T. A. Long and D. L. L. Wilson of the Agricultural Experiment Station at Penn State.

Consumer reaction to the use of such wastes has thus far been favorable, Drs. Long and Wilson claim. They find that apparently most people can accept the premise that recycled wastes are not wastes, but simply nutrients.

This confidence in recycling research is well founded, they add, since all wastes and carcasses of animals consuming wastes are analyzed for contaminants. The levels of contaminants — pesticides, heavy metals, and bacteria — have been extremely low, too low to pose a problem for humans, the Penn Staters point out.

A program sponsored jointly by the University and the State Correctional Institution at Rockview has been particularly successful. Pea and sweet corn wastes from the institution's cannery and field residues from agricultural fields there have provided 70 per cent of the total winter feed for a 200-cow, beef-dairy crossbred herd for the past nine years.

Robert Williams, supervisor of correctional industries at Rockview, is enthusiastic about the program. "We keep a careful record of what is being fed at any particular time," he says. "The condition of the animals is checked regularly, and the calves weighed each month so that we know on a regular basis how they're responding to the feeding program. "It's hard to put a dollar value on this sort of thing, but the program is obviously a success for two very simple reasons: We must feed the cattle something, and we must dispose of the cannery wastes. If we can safely accomplish both objectives on one program, so much the better. As it works

now, our herd supplies all the beef here at Rockview and some eaten at other state correctional institutions."

The main, and most promising, laboratory work is in the area of various waste combinations. Laboratory-scale pilot studies have shown that the blending of corn grain and certain alkalies and acids with waste silages can increase nutritional value up to 25 per cent. Unfortunately, the use of acids and alkalies is, as yet, not economically feasible. Such silages are complete feeds; no others are needed. Silage wastes include mixtures of cattle manures, corn stalks, low-quality straws and hay, tea leaves, sterilized poultry litter, apple and tomato pomace, and several other horticultural wastes.

Also on the research team, in addition to Dr. Long and Dr. Wilson, is graduate assistant W. W. Saylor. They have worked with private producers and scientists from other northeastern universities to develop new waste feed combinations. Partial support for the project has been provided by the Pennsylvania Department of Agriculture.

LANCASTER SILO CO., INC.

2008 Horseshoe Rd. LANCASTER, PA. 17601 2436 Creek Hill Rd.

BUILDING QUALITY CONCRETE

"VIBRATED-STAVE" SILO'S IS OUR BUSINESS

For Complete Dairy or Beef Feedlot Systems,

STARLINE:

Silo Unloaders
Conveyors
Bunk Feeders
Roller Mills

BARN EQUIPMENT:

Stalls
Waterbowls
Fans
Windows
Gates, Hay Racks

- RITCHIE & FAIRFIELD -
LIVESTOCK WATERERS
(electric or gas)

PARTS & SERVICE AVAILABLE
FOR ANY STARLINE EQUIPMENT.

MANURE SYSTEM EQUIPMENT PITS & PUMPS

Need a good blower to fill your silo? We sell the DEMUTH "HUSTLER" 56 inch blower with 20" Shaker Pan Height

SALES-INSTALLATION-SERVICE

For Plans or Quotes, Call 392-9062
Larry Hiestand, Sales Representative
IN THE LEBANON AREA DIAL 717-273-7394

Before You Start Riding High on the Hog...



Talk to the Professionals

Don't gamble with your hog raising investment. Big Dutchman's controlled confinement systems regulate every step of the hog raising process — nothing is left to chance

When it comes to return on investment, you don't want to gamble with unproven equipment. Big Dutchman was the first to automate the farm and our hog confinement systems have over 12 years of farm-proven experience.

Let us show you how to start planning for a professional hog confinement complex.

HERSHEY EQUIPMENT CO.

215 Diller Avenue Phone (717) 354-5168 or (717) 872-5111 New Holland, Pa.

AUTHORIZED **Big Dutchman** DISTRIBUTOR

TRY A CLASSIFIED AD

JULY is for Alfalfa -

Topdress with 0-12-34

Check for Potato Leafhopper
Methoxychlor Cygon available.
Spray 2nd-4th Cuttings as necessary.

Soybeans -

Fertilize with 0-15-30
for beans after barley.

Limestone -

Available for application after barley harvest.

Tobacco -

Look at our Solo Sprayers for use in Sucker Control.

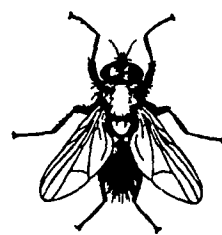
CLOSED SATURDAY DURING JULY & AUGUST



BULK BLENDS
MASTER FARMER
ANHYDROUS AMMONIA

ORGANIC PLANT FOOD CO.

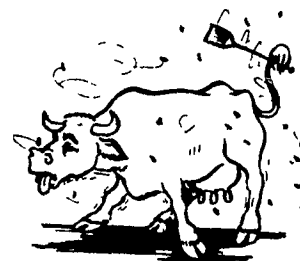
2313 Norman Rd., Lancaster, Pa. Ph. 397-5152



PUBLIC ENEMY NO. 1

Your Local Red Rose Dealer can help you rid your premises of this creature. We have a fly control program to fit every farmer's need.

- GOLDEN MALRIN SUGAR BAIT
- FATAL FLY CONTAINING DIPTEREX
- KLEEN-KOW CONTAINING VAPONA DIRECT SPRAY
- CYGON 2-E RESIDUAL SPRAY
- SIMAX-BACK RUBBER CONCENTRATE
- KORLAN
- CATTLE DUST BAGS



WE ALSO STOCK A COMPLETE SELECTION OF HERD HEALTH NEEDS.



For Prompt Courteous Service Give Your Local Independent Red Rose Dealer A Call!

RED ROSE FEED & FARM SUPPLY

Div. of Carnation
27 N. CHURCH ST. QUARRYVILLE, PA. 786-7361

BROWN & REA, INC.

ATGLEN, PA. 215-593-5149