

# **Double cropping & poultry** manure =fertilizer savings

NEWARK, Del. - Poultry manure has become a successful substitute for commercial fertilizer on some Delmarva grain farms. Among other things, high level manure management is now being used to double crop no-till corn after barley.

Last summer, A. & E. Vogl Brothers of Mastens Corner, Del., produced 103 bushels of dry land corn this way while cutting their fertilizer costs by close to \$50 an acre.

The Vogls first tried using poultry manure on double cropped no-till corn in 1982 with the help of University of Delaware extension environmental specialist J. Ross Harris. He showed them how to have the manure analyzed for nutrient content and how to calibrate their spreader in order to apply it according to soil test recommendations. They liked the results so well they've been using poultry manure ever since, even though (being dairy farmers) they sometimes have to buy it from a neighbor.

After three years of growing corn after barley, here's what the Vogl brothers have learned:

• Manure can replace the bulk of fertilizer nitrogen without significant yield reduction, though it's still advisable to use starter fertilizer.

• It's probably best to apply the manure after herbicide application to avoid tying up weed control chemicals in the organic matter of the manure.

• Short season 90 to 100-day corn hybrids should be used.

• Fields must be routinely checked for insects. Fall armyworm, for example, can substantially reduce grain yield and quality if not controlled. The threshold level for treatment of insect damage is higher in corn silage than in corn sold for grain.

Results from a 1983 no-till double cropped corn demonstration Harris conducted on the Vogl farm showed essentially no yield difference between commercial fertilizer and broiler manure treatments. Due to insect damage and water stress, yields on both plots were depressed that year. The average under commercial fertilizer was 59 bushels an acre; with manure, 63 bushels.

The fertilizer cost \$69 an acre compared with \$4 an acre to load, haul and spread the manure. These figures include fuel and labor costs plus equipment depreciation. Since the Vogls don't raise poultry, they had to buy the manure, which cost \$15 an acre. This gave them a net saving of \$50 (\$69 minus \$19). By using manure on the 20-acre field adjoining the demonstration plots they saved \$1,000.

Pleased with the performance of the manure, this past summer the brothers again used it on lateplanted corn after barley for similar savings and a yield of 103 bushels an acre.

Harris suggests that other farmers consider following the Vogls' lead and use poultry manure for crop production.

If the idea of growing corn after barley appeals--as an alternative for double cropping, as a source of

corn silage for dairy feed, or as a hedge against weather effects on early corn yields-be prepared to plan manure usage, scout fields for insects and take action when necessary.

"Double cropped no-till corn isn't for everyone," Harris says, "but farmers who have manure available and are willing to go this route can certainly reduce their net input costs."

### New Murray Grey sire 'invades' U.S.



Dorbrook Farms of Colts Neck, NJ, recently announced the addition of a new herd sire, Isla Invader, to their herd of Murray Grey cattle.

Several years ago, the farm established a herd of this breed, with foundation stock being imported directly from England. A number of the herd's females were sired by Willalooka Ambrose, the breed's first international beef sire.

'Our thought is to have a herd of Murray Grays of all imported breeding so that beef men of the area can come to New Jersey and get good cattle that are the same as one would find in Great Britain," reports Dorbrook's general manager, John Gerow.

## **Devereux Foundation** sponsors Chester Co. 4-H banquet

WEST CHESTER — The first annual Chester County 4-H Livestock awards and Buyer Appreciation Banquet was held Saturday evening December 8th. The banquet ended a year of work for 4-H members and the new Livestock Leaders Council formed in Chester County.

Members of the council act in an advisory capacity in planning the various 4-H livestock shows and events throughout the year. They were the major force in developing the Kimberton Fair Petting Zoo which provides the general public the opportunity to see and touch baby farm animals. Money raised from the zoo helps the council defray the cost of all the 4-H shows and the banquet.

Two hundred and thirty people from across the county attended the banquet. A beef, lamb, and pork dinner was served. The beef was donated by Devereux Soleil Farms, the pork by Hatfield Packing Company and Kunzlers, and the lamb by Breezeview Farms of Atglen. The rest of the meal was donated by the Devereux Foundation, a staunch supporter of the Chester County 4-H Livestock Clubs. The purpose of the banquet

### ITC rules on Canadian pork exports

was two fold: first to show appreciation to all purchasers of 4-H market animals and to all sponsors of trophies in 1984, and second, to honor all 4-H members who excelled in 4-H work this year.

Master of Ceremonies for the evening was Mr. Don Cairns, a member of the 4-H Beef Club. The entire program was run by club officers from the four livestock club. The following is a list of all 4-H members who received awards during the year:

#### Swine Club

Sue Burkhart, Mohnton -Champion Market Hog. Mike Stoltzfus, Elverson - Reserve Champion Market Hog, Champion Junior Showman. Allison Burns, Elverson - Champion Trio. Lois Bagshaw, Gap - Champion Senior Showman. Robert Bell, Mohnton -Reserve Champion Senior Showman. Jill Burkhart, Mohnton **Reserve** Champion Junior Showman.

#### Sheep Club

Donna MacCauley, Atglen -Champion Showman, Reserve

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Champion Junior Blocker. Betsy Colket, Phoenixville - Reserve Champion Market Lamb. Kathleen Baroni, Downingtown - Champion Showman, Reserve Champion Senior Blocker. Meredith Rapp, Downingtown - Champion Junior Blocker. Nancy MacCauley, Atglen - Champion Senior Blocker.

**Beef** Club

Greg Davis, Coatesville -Reserve Champion Steer, Champion Senior Showman, Senior Achievement Award. Ken Walker, West Chester - Champion Steer, Champion Angus Heifer, Outstanding Teen Leader. Erica McClellan, Kennett Square Reserve Champion Angus Heifer. Tiffany Rohrer, Nottingham Champion Junior Showman, Feed Efficiency Award, Junior Achievement Award. Phil Howe, **Downingtown - Champion First** Year Showman. Lisa Howe, Downingtown - Average Daily Gain Award. Mike Crossan, Coatesville - First Year Achievement Award. Don Cairns, Champion Market Lamb, Reserve Parkesburg - Outstanding Teen Leader.

Livestock Ledger By Chester D. Hughes **Extension Livestock Specialist** 

onfinement buildings, dust can be a real health problem. The dust, which contains bacteria and such irritants as ammonia and hvdrogen sulfide gases, can trigger inflammation in the nose, throat and lungs. Most producers, looking for solutions, already know that added dietary fat can reduce the amount of dust in the feed. Recent studies. conducted at the University of Nebraska, however describe how much reduction in aerial dust occurs when adding dietary fat. The most significant result of adding fat was a reduction in the amount of aerial dust. Workers at the testing facilities noted an obvious difference in the environment, saying they coughed less and their eyes were less irritated. Their observations were backed up by the researcher's data. Aerial dust was reduced by

For swine producers working in 49 percent in the trial which was

conducted during the springtime, and by 51 percent in the fall.

In both the springtime and fall trials, 240 hogs were used. The hogs were divided into two groups of 120 and kept in separate environmentally-regulated finishing buildings. One of the groups was fed a ration containing five percent tallow, while the other group received no tallow at all.

Those hogs fed tallow had a seven percent higher average daily gain than those that were not. And, those fed tallow had four percent less feed intake and a 10 percent better feed-to-gain ratio.

An economic analysis was not completed in conjunction with the study. Adding fat to the diet may be a good, practical way to reduce the dust problem.

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CAMP HILL - A recent Pa. Farmers Association publication reports that the International Trade Commission has ruled 4-0, that Canadian exports are hurting U.S. hog producers.

Canada exported about 125. million pounds of pork and about 500,000 live hogs to the U.S. last year. Canadian shipments this year are running almost three times higher than 1983, and have already cost U.S. producers an estimated \$644 million.

The ITC ruling sets the stage for a Commerce Department in-vestigation to determine if the exports are being subsidized by the Canadian government. Such a finding would justify the use of countervailing duties. The Commerce Department investigation is due to be completed by late January.

Block recently released copies of the 1984 Yearbook of Agriculture -"Animal Health - Livestock and Pets."

WASHINGTON, D.C. -

Secretary of Agriculture John R.

The 688-page hardback has 87 chapters, 32 pages of color photos and more than 300 black and white photos. Each year the U.S. Department of Agriculture publishes a yearbook on a different subject.

For this yearbook, 54 authors, including specialists from USDA and state land-grant universities and private veterinarians, wrote or co-authored chapters.

The book has sections on raising backyard poultry and pet birds, cattle, sheep and goats, swine, fish, dogs and cats, rabbits and other small animals and horses.

Copies of the 1984 yearbook are available for \$10 each from the Superintendent of Documents, U.S. Government Printing Office, member of Congress will have limited copies for public distribution.

Washington, D.C. 20402. Copies will

also be on sale at government

bookstores in many cities. Each

