

Poultry manure use guidelines given

BY HERB JORDAN

Penn State Poultry Specialist UNIVERSITY PARK — The number of head of poultry on Pennsylvania farms has quadrupled over the past 17 years. At the same time the price of commercial fertilizer has more than tripled. Consequently, poultry farmers are using more manure and more often, along with too much or too little commercial fertilizer on each acre. This has resulted in some problems which will be discussed here.

Average values of plant nutrient composition from laboratory tests indicate poultry manure is relatively high in nutrients. For example fresh poultry manure contains on the average 30-20-10 pounds of N-P₂O₅-K₂O per ton. While dry poultry manure may contain 90-70-40 pounds of N-P₂O₅-K₂O or more.

The plant nutrient content of poultry manure varies widely, however, because of variation in poultry ration, age and productivity of the animal, moisture content of manure and time in storage which causes wide variation in microbial activity. This can cause significant changes in the plant nutrient content of the manure. Unidentified factors in poultry manure, allowed to remain warm and wet for 28 days or longer in storage, can cause plant toxicity when applied to cropland.

Drying Manure

More poultry manure is being dried and stored in cage houses today than ever before. This is done by controlling leaks in waterers, diverting outside surface water, stirring the manure and drying it with fans. This

reduces the weight of manure hauled to the field three- to sixfold as well as making the material more spreadable. This process also lowers ammonia fumes in the house which seems to improve bird health, growth rate, egg production, fertility, hatchability, and eggshell quality. Drying fresh manure before storage holds its real value.

It is recommended that all poultry farms have a minimum of 2-3 acres cropland usable for manure disposal per 1,000 head of poultry capacity on the farm. Five acres per 1,000 head capacity is better. Useful acreage is interpreted by most farmers as being less than one mile from the barn or poultry house. Nearly all manure is spread in this area or even a smaller area. These guidelines result in fairly low application rates per acre. A serious problem results in that it is nearly impossible to purchase a manure spreader in Pennsylvania that will apply one to three tons (dry matter) of poultry manure per acre as recommended. Most spreaders will spread 4-6 tons (dry matter) per acre at the minimum setting. Some spreaders have little or no control of how much manure is applied except for speed of spreading. Driving a tractor and spreader too fast is dangerous.

Test Soils.
Soils receiving applications of poultry manure should be tested regularly to determine build-ups of plant nutrient levels in soils. Excessive applications can cause nutrient imbalance and increase the soluble salt levels in soils

thereby causing crop yields to decrease. This soluble salt problem may be greatest immediately after spreading. Excessive applications can also lead to surface and ground water pollution problems. Soil testing is a useful monitoring tool and when

used in conjunction with manure analyses can provide guidance in determining appropriate agronomic and environmentally sound application rates. Soil and manure analysis can be obtained

(Turn to Page D21)

COMPLETE FARM PAINTING

INDUSTRIAL  RESIDENTIAL

COMMERCIAL

We Use Quality Paint
AERIAL LADDER EQUIPMENT

- Modern and Efficient Method
- Reasonable Prices
- Spray-On and Brush-In Method
- Sandblasting if Necessary

For Free Estimates Write or Call:

ESH SPRAY PAINTING
717-687-7007 or 687-8262

SPRAY-ON AND BRUSH-IN PAINTER

637 Georgetown Rd.
Ronks, PA 17572

Attention Beef & Pork Raisers CUSTOM BUTCHERING

HESS' BUTCHER SHOP



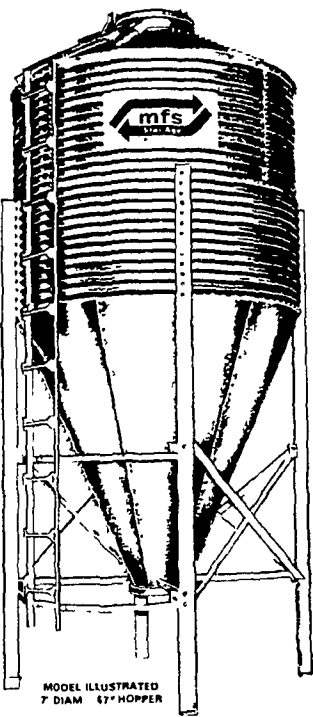
2635 Willow Street Pike
Willow Street, PA

717-464-3374

- We Process the Old Fashioned Way —
- Pudding
 - Hams
 - Bologna
 - Scrapple
 - Bacons
 - Dry Beef

We also Specialize in Beef
For Your Freezer, Sides of Pork,
Sides of Beef.

Freezer Lockers Now Available

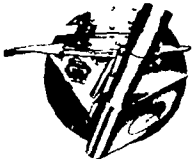


MODEL ILLUSTRATED
7' DIAM 67" HOPPER

**...VALUE PACKED FEATURES
make this the bin you'll want**



WEATHER TIGHT GROUND CONNECTION WITH TROLLED ROOF HATCH (SLAM DARD)



FULL FLOW BOOT PROVIDES 90° HOISTING AND 180° FROM 18° BELOW TO 8° ON 8 AUGMENT WITHOUT THE USE OF SPECIAL TAIL AUGERS, FITTINGS AND JOINTS (OPTIONAL)



LEAF HANDLE RAIL (optional)

ALL STEEL GALVANIZED MATERIAL

ALL SEAMS DOUBLE CAULKED

Hade's Equipment Sales & Service
10355 Five Forks Rd.
Waynesboro, PA 17268
717-762-4985



See us
now!
Offers expire June 30, 1983

Buy one of our new Case farm tractors — get round trip tickets for two, plus cash for your trip

free

free

fly to your choice of over 80 cities in continental U.S. or Canada* and get \$400 in travel cash from Case on your purchase of a new Case 1190 1290 1390 1490 or 1690 tractor

free

fly to your choice of 10 cities in Mexico, Bermuda or the Caribbean* and get \$800 in travel cash from Case on your purchase of a new Case 2090 2290 2390 or 2590 tractor

free

fly to London, Paris, Amsterdam, Rome, Madrid, Zurich, Frankfurt or Hawaii* and get \$1,500 in travel cash from Case on your purchase of a new Case 4490 4690 or 4890 tractor

In addition, take Option #1 — Your choice of Case 8.8% A.P.R. financing for up to 48 months.
Or take Option #2 — No finance charges until May 1, 1984.
Or take Option #3 — A special cash option, in lieu of financing Options #1 and #2, on your new Case tractor purchase. (Cash options shown by model in table.)

ELIGIBLE MODEL	CASH OPTION	ELIGIBLE MODEL	CASH OPTION
1190	\$ 650	2290	\$2100
1290	\$ 750	2390	\$2500
1390	\$ 900	2590	\$2700
1490	\$1400	4490	\$3200
1690	\$1600	4690	\$4000
2090	\$1900	4890	\$4700

For 8.8% A.P.R. finance charges or waiver-of-finance-charges on new tractors, purchase must be financed through J I Case Credit Corporation. Offers apply from date of purchase.

*Destinations and points of origin are limited to eligible locations. Travel Certificates for two (2) will be issued within 45 days of tractor purchase. Certificates must be redeemed for airline tickets by December 31 1983 and cannot be redeemed for cash. Travel must be completed prior to March 1 1984. Travel dates are subject to availability. Government Agencies Departments do not qualify. Offer void where prohibited by law. All offers valid now thru June 30 1983.

See us now for full details.

STOFFER BROS., INC.
1066 Lincoln Way West
Chambersburg, PA
(717) 263-8424

CASE POWER & EQUIP.
Montgomeryville, PA
(215) 699-5871
New Castle, DE
(302) 652-3028

A. L. HERR & BRO.
312 Park Ave
Quarryville, PA
(717) 786-3521

BINKLEY & HURST BROS.
133 Rothsville Station Rd
Lititz, PA
(717) 626-4705

C. & P. FULTZ EQUIP.
RD 1, Spring Mills, PA
(814) 422-8805

C. H. WALTZ SONS, INC.
RD1, Cogan Station, PA
(717) 435-2921

E. W. BILEWICZ EQUIP., INC.
Elmer Rd., Richwood, NJ
(609) 881-2692

ZIMMERMAN'S FARM SERVICE
Bethel, PA
(717) 933-4114

PEOPLES SALES & SERVICE
Oakland Mills, PA
(717) 463-2735



PAUL SHOVER'S, INC.
35 East Willow St
Carlisle, PA
(717) 243-2686
Loydsville, Pa
(717) 789-3117