

Corn planters poor at applying granular insecticides

NEWARK, DE — Applying granular soil insecticides with a corn planter has become standard practice, although they're not always necessary.

Apparently, farmers who use these materials are wasting a lot of money by not calibrating their insecticide applicators, says University of Delaware extension agricultural engineer Tom Williams, citing a spring, 1984, field study.

The study reported accuracy was very poor.

Less than one-third of the 375 units on the 50 planters tested were

within plus or minus 10 percent of the target amount. Nearly half were overapplying materials by more than 20 percent, while one out of four was underapplying by more than 20 percent. The worst case was a 389 percent overapplication rate. That would make the insecticide cost nearly four times more than it should, or about \$50 per acre.

"Given today's slim crop profit margins," Williams says, "farmers can't afford that wasteful cost. The magazine estimates such application errors are costing

farmers at least \$10 an acre. Earlier field studies have also shown poor applicator accuracy with granular insecticides."

The reason for such error and expense is that farmers are simply not calibrating their applicators, the engineer says. Only two of the farmers surveyed had calibrated during the season. Most had never calibrated.

"Calibration is not difficult or time-consuming and it can save a lot of money," Williams says. "All you have to do is collect the output from each applicator over a measured distance and weigh the results, make adjustments, and repeat until all units are putting out equally."

It's essential to check each row unit because they'll probably all be different. Eighty percent of the units in the study had more than 20 percent row-to-row variability. Only 4 percent varied from row to row by less than 10 percent of the target amount.

About half were over and half under the target range, so on the average things would seem to even out. However, this is not the case,

the engineer says, because nearly half the applicators tested were off by more than 50 percent.

"The indicators on applicator flow adjusters aren't that precise," he explains. "If you set them all the same without calibrating, they probably won't put out equally. The setting recommended by the equipment or insecticide manufacturer is just a place to start when you calibrate."

Application rate depends on size of meter opening, speed of rotor of agitator, travel speed, field roughness and flowability of granules. Flowability is determined by the type of granule, its size and density, as well as by temperature and humidity. That's why each pesticide and field condition requires a different setting.

Ground speed is another important factor affecting application rate, so calibrate under field conditions at normal planting speed.

Some insecticide manufacturers provide calibration tubes that can be used to collect the output from the applicator. Output is then

measured on a volume basis. It's still a good idea to weigh the output from each row when calibrating, Williams says, because temperature, moisture and packing can change the volume.

Label recommendations are usually given in ounces of material per 1,000 feet of row, regardless of row width. To calibrate, collect the material from each row unit for 200 feet and weigh each sample. Use a postal or food scale that measures small amounts accurately in ounces. The application rate per 1,000 feet of row will be five times the measured weight. Compare this figure with the recommended rate.

Subtract the weight of collection containers when weighing samples. When using plastic bags, since each batch of bags will weigh the same, just average the weight of a few bags once to get the container weight.

"Calibrate often as conditions and materials change, so that your application accuracy stays within 10 percent of the intended rate and your production costs stay reasonable," Williams says.

USDA sets food aid totals

WASHINGTON — The U.S. Department of Agriculture has revised country and commodity allocations for fiscal 1985.

Under Secretary of Agriculture Daniel G. Amstutz said current program plans provide for distribution of \$1011.9 million in commodity shipments this fiscal year, changed from the previous estimate of \$1053.6 million. Of the current amount, \$927.5 million is allocated and \$84.4 million is being held in reserve to furnish commodities for unforeseen needs during the remainder of the fiscal year. There has been a recent transfer of \$40 million for the Title I/III program to Title II to help assure adequate funding for meeting food needs in Africa.

Amstutz said there has been an increase in the allocation for Mozambique and Peru. Ecuador has been identified for an allocation, and minor quantity changes were made in some countries.

The revised allocations meet the legal requirement that not less than 75 percent of food aid commodities be allocated to friendly countries that meet the International Development Association poverty criterion. The countries in this category are those with an annual per capita gross

national product of \$790 or less.

Amstutz said the program takes into account such variables as available commodities and budget in the United States and participating countries; changing economic and foreign policy situations, including human rights assessments; potential for market development; fluctuations in commodity prices; availability of handling, storage and distribution facilities; and possible disincentives to local production.

Except for agreements already signed, these allocations represent neither final U.S. commitments nor agreements with participating governments. Situations still may develop which could cause further changes in country and commodity allocations, Amstutz said.

The program is designed to promote exports of agricultural commodities from the United States and to foster economic development in recipient countries. It provides loans of up to 40 years, with a grace period of up to 10 years and low interest rates.

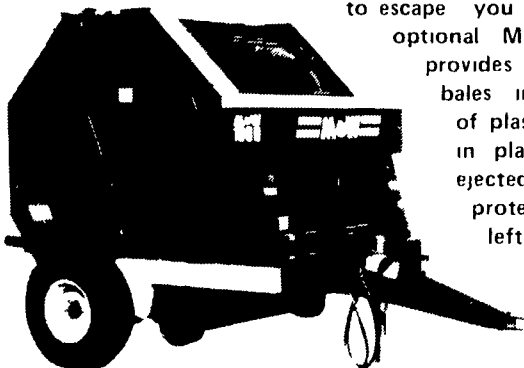
It also provides for the forgiveness of the debt incurred, based on accomplishments in food for development programs and projects agreed upon by the United States and recipient countries.

M&W Two profit builders from M&W

Improve yields with the M&W V-Chisel by breaking the compacted barrier which limits root growth. The parabolic shank design lifts the soil to shatter it so less power is required. The rugged V-Chisel is available with manual reset shanks or automatic reset shanks. Both have reversible points. Coulters and gauge wheels are also available.



Improve profits by reducing losses in the field and in storage with an M&W Round Baler. The enclosed bale chamber retains valuable leaves while the bale is forming. Other balers which use belts or rollers allow these leaves to escape you lose valuable nutrition. The optional M&W plastic wrap system provides an easy way to protect bales in storage. Several wraps of plastic are applied to the bale in place of twine before it is ejected. The outer layers are protected while the ends are left open to allow curing.



HAMILTON EQUIPMENT, INC.
Wholesale Distributors
567 South Reading Road, P.O. Box 478
Ephrata, PA 17522
Phone: 717/733-7951

BUYER'S CHOICE

3 WAYS TO SAVE!

CHOICE #1

NEW, LOWER FINANCING RATES ON ALL NEW AND USED SPERRY NEW HOLLAND EQUIPMENT except combines which carry their own low financing rate. Rates effective until further notice.

0.0% financing for 12 months (monthly payments required)
APR

9.9% financing for 36 months (monthly quarterly or semi annual payments required)
APR

5.9% financing for 18 months (monthly payments required)
APR

11.9% financing for 48 months (monthly quarterly or semi annual payments required)
APR

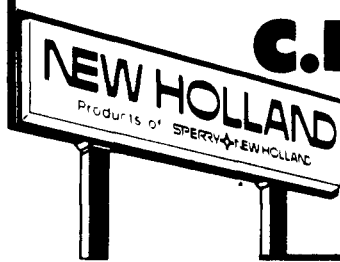
7.9% financing for 24 months (monthly quarterly or semi annual payments required)
APR

12.9% financing for 60 months (monthly quarterly or semi annual payments required)
APR

The above rate applies to the following new SP equipment: Balers, Bale Wagons, Forage Harvesters and Windrowers.

ASK FOR COMPLETE DETAILS

Your SPERRY NEW HOLLAND Dealer



C.E. WILEY & SON INC

101 S. Lime St., Quarryville, Pa.
Phone (717) 786-2895

Our 78th Year Serving The Community

CHOICE #2

FREE FINANCE (DEFERRED PAYMENT FINANCING) ON ALL NEW AND ELIGIBLE USED HAY AND FORAGE EQUIPMENT TO SEPTEMBER 1, 1985. AVAILABLE TO DESIGNATED USE DATES ON ALL NEW AND USED MANURE SPREADERS, GRINDER-MIXERS AND TUB GRINDERS.

CHOICE #3

DIVIDENDS FOR CASH PURCHASES OF NEW EQUIPMENT. TAKE IT IN CASH OR AS A DEDUCTION FROM THE PRICE OF HAY AND FORAGE EQUIPMENT, GRAIN WINDROWERS, SKID-STEER LOADERS, GRINDER-MIXERS, MANURE SPREADERS OR TUB GRINDERS.