

## Control stalk borers in reduced tillage corn

LANCASTER — The stalk borer, sometimes called common stalk borer, is native to eastern United States, said Stanley Gesell, Penn State Extension Entomologist during the 7th Annual Mid-Atlantic No-Till Conference held here recently.

Stalk borer has been recognized as a pest of agronomic and vegetable crops for the past 150 years, he said. However, during the past decade, with the shift from conventional to reduced tillage for corn, this insect's status has changed from minor to major importance.

In a study conducted at Penn State last year, Gesell explained they located a field in Mifflin County during the fall where stalk borer eggs were found on clumps of orchardgrass and rye. The field had been in corn, planted after chisel plowing and discing.

The purpose of the research was to test the effectiveness of insecticides at planting time and to study the effectiveness of spray applications on young larvae at hatching and during their early activity.

After the eggs hatched this spring, from mid-May to mid-June, the larvae started eating. Since there was no grass, due to effective herbicide control, the worms attacked the seedling corn.

They bored into the plant from the side or the top and began chewing out the inside of the plant, Gesell said. As a result, the corn plants showed top leaf wilt.

When the worms have gorged themselves for four to eight weeks (end of July), they entered the ground and pupated, metamorphosing into moths by August.

In the pest study, spray applications of various insecticides were made on

May 30, the day after the first plant injury was noticed — the corn was 2½ inches tall. The insecticides were applied with a hand held compressed air sprayer, delivering 43½ gallons of spray per acre at 40 p.s.i.

Gesell explained the study, in its first year, indicated no planting time treatments controlled the stalk borer effectively. Included in the test were treatments with Furadan 10G (1 and 2 lbs/acre), FMC 35001 15G (1 and 2 lbs/acre), and Orthene 75% (0.75/100 lb seed).

Only two treatments, the high rate of Furadan and the

Orthene seed treatment were significantly better.

Several spray materials showed promise, said Gesell. Pydrin was most effective but is not presently registered for use. Larvin showed promise, but is not registered either. Methomyl (Lannate and Nudrin) also showed promise and is registered for use on corn.

"As it stands now, we know of only three ways of controlling stalk borer. 1. Two blocks of wood brought together sharply with the worm in between; 2. moldboard plowing (even if they hatch, if they're buried under six inches of soil they

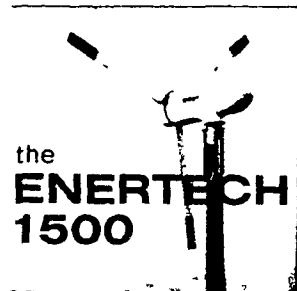
## Moyer wins bid calling contest

FARM SHOW — Richard J. Moyer, of Spring City, was winner of the annual Championship Bid Calling Contest held at the Farm Show.

The 40 contestants from throughout the state were judged on appearance, microphone ability, speaking ability and salesmanship.

Moyer is owner and operator of Bonnie Brae Auction Center in Spring City. Also, he is a partner in Hess and Moyer Auc-

tioneers, of Collegeville, specializing in real estate and personal property sales.



the **ENERTECH 1500**

a beautiful way to save electricity

The EnerTech 1500 plugs into and renewable wind energy into your household electric system.

Send \$1 for our 16-page brochure with details on sites, endurance tests, tax credits and more.



458-8011  
p o box 24, uwchland, pa 19480



Richard Moyer

## Herbicide spraying

(Continued from Page D11) wear-resistant material recommended. "Spray mixes containing wettable powders are especially abrasive and should not be used with fast wearing brass tips."

Daum added farmers should use the right type of nozzle for herbicide spraying — flat-fan, even-fan, and flooding-fan tips. He said cone nozzles are better suited for insecticide and fungicide applications

won't be coming up), and 3 burning trash, an environmental no-no," said Gesell.

He noted as his research on the pest continues, there may be new chemicals and methods discovered for controlling the stalk borer in reduced tillage corn.

The Penn State engineer concluded by listing a number of operational errors:

—Failure to clean the sprayer, flush and drain at the end of each day. Use a cleaning agent when changing pesticide.

—Failure to drain and protect the sprayer, especially the pump, for winter storage. Some sprayers deteriorate more in storage than in use.

—Using a tractor without a speed indicator to pull sprayer. Must maintain constant speed to achieve uniform application.

—Spraying when wind exceeds five mph. Even moderate wind can blow spray droplet from target area and, more important, to non-target areas.

—Improper sequence of mixing various formulations

and additives.

—Little understanding of interaction of chemicals. More information is needed on the effects of one or more chemicals in spray mix.

—Agitator not operating while filling tank or traveling to field. Wettable powders need constant agitation.

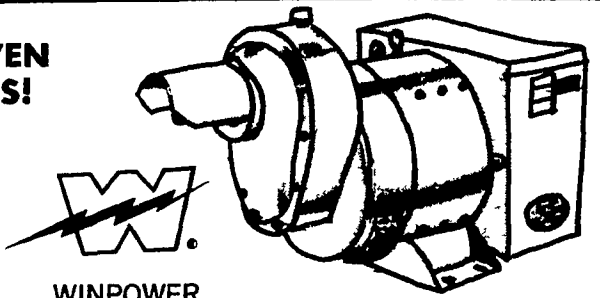
—Operator not familiar with equipment capabilities, limitations, and adjustments. Detailed training is necessary for good pesticide application.

"The cures for most of the above problems are obvious. The question is how can the cures be implemented?"

"I challenge each of you to join me, to exert whatever influence is necessary for the continued safe and efficient use of pesticides. This includes maintaining and using the sprayer as a safe, effective, and efficient delivery system," Daum concluded.

### TRACTOR DRIVEN ALTERNATORS!

Protect your farm against costly power failure. Buy or lease a Winpower Alternator. PHONE OR WRITE



WINPOWER CORPORATION  
Distributed by

**JAY RICHWINE**  
528 Hogestown Rd  
Mechanicsburg, PA 17055  
717 766 4382

**JOHN BREED**

464 Arden Road  
Mt Lebanon, PA 15216  
412-831 0243  
412 571 1887

## FRANK A. FILLIPPO, INC.

# — WANTED —

## DISABLED & CRIPPLED COWS, BULLS & STEERS

### Competitive Prices Paid

### Slaughtered under government inspection

Call:

Frank Fillippo - Residence - 215-666-0725

Elam Ginder - 717-367-3824

C.L. King - 717-786-7229

## The center of a total operation...

Morton Buildings are designed with the modern farmer in mind because activity can be centralized in one area thereby establishing controlled efficiency. A Morton Building can be customized to include concrete floors, insulation, windows,



skylights and huge doors — all of which make it ideal for a repair shop, equipment storage, office, as well as grain storage. If a total progressive operation is your plan contact the nearest Morton Sales office — (listed below) today!

ENDRESS BROTHERS  
60 x 180 Machine Shed  
Galva, Illinois



**WINTER DISCOUNTS NOW IN EFFECT**

**MORTON BUILDINGS**  
NO. 1 CHOICE OF FARMERS

Serving Central PA and Maryland  
RD 4 Box 34A, Gettysburg, PA 17325  
Ph 717 334 2168

Serving Eastern PA and New Jersey  
Box 126  
Phillipsburg, NJ 08865  
Ph 201-454 7900

Serving North Central PA Area  
P O Box 937  
State College, PA 16801  
Ph 814 383 4355

Serving Virginia  
P O Box 529  
133 W Davis St  
Culpeper, VA 22701  
Ph 703 825 3633

Send information on MORTON BUILDINGS. Have your salesman phone me for an appointment.  
Garages—Shops  
Machine Sheds  
Horse Barns  
Grain Storage  
Hog Confinement  
Cattle Confinement  
Free Stall Barns & Silo  
Feed Rooms  
Livestock Barns

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone No. \_\_\_\_\_