

# Maximum Yield Goals Require Vigilance

(Continued from Page 1)

The project, conducted at the Rutgers Crops Research and Development Center in Adelphia, examined the combination of genetics and the envi-

ronment, including hybrid selection, soil fertility, irrigation, and other factors, to see what kind of yields would result.

A "combination of hybrids

and blend and cross-pollination, if matched well, can boost yields 2.7 percent," Heckman noted.

Irrigation was a big factor to ensure the leading root system did not contact dry soil.

Some key findings for growers as a result of the project:

- Plant early for "maximum harvest of sunlight," noted Heckman. When planting early, the crop's canopy results in early closure and soil is not exposed, bare, to sunlight.

- Use starter MAP at a rate of 11-52-0.

- Use equal plant spacing.

- Use optimal seed depth, from 1½ to 2 inches deep.

- Plant corn on 12-inch rows at 90,000 seeds to the acre. Thin out to one plant to every square foot.

- Ensure good soil preparation, proper pH, subsoil, and ensure that the subsoil is not acidic.

Crop rotations into forage

legumes, sod, or soybeans can improve yields. Research studies have shown that corn after corn with no rotation suppresses yields by 10 percent.

Adding organic material through manure and compost can also improve the quality of soil.

A big limitation to overall yield is sunlight. "Sunlight is one of the most difficult limitations to overcome," Heckman noted.

The project followed the groundbreaking studies by Dr. Roy Flannery from the 1980s. In 1980, Flannery achieved yields of 312 bushels per acre.

In Flannery's studies, crops were given nitrogen at 500 pounds per acre, phosphorous at 300 pounds per acre, and potash at 300 pounds per acre, including micronutrients. Heckman followed Flannery's program, to a certain degree. However, Heckman modified the nitrogen material to

400-500 pounds per acre using ammonium sulfate, used 100 pounds of phosphorous per acre, and 400 pounds of potassium per acre. He also used about 200-300 pounds of sulphur and other nutrients.

Heckman used a combination of Pioneer hybrids to achieve the results. Planting dates went from April 24 to May 1 at a seeding rate of 90,000 plants per acre, thinned to 43,560 plants per acre in one square foot blocks per plant. About 60-80 percent of the field crop was irrigated two to three times a week during the season. "Never allow the soil to dry out," said Heckman.

Using potassium chloride (0-0-60 is an excellent source, noted Heckman) also helped achieve higher yields. Also, boron applications improved fertility and pollination.

(Turn to Page 9)



Speakers at the Pennsylvania Corn and Soybean Conference. From left, Mark Mattingly, agronomist with Hoffman Seeds and Dr. Lou Moore, Penn State economist.

## HOOPER

HOOPER INC.  
THREE LOCATIONS  
*The Saving Place*

- Intercourse, PA • 717-768-8231
- Middletown, DE • 302-378-9555
- McAlisterville, PA • 717-463-2191



## SCIENCO® SmartBox®

For the application of Low-rate granular insecticide.

**Safe** - a closed system with no worker exposure.

**Efficient** - variable rate and speed - 6 times more accurate than conventional metering

**Reliable** - only one moving part, requires no field maintenance

### WE SHIP PARTS DAILY

Via FED. EXP. - UPS - PPSH - BUS - AIR FREIGHT, ETC.

#### HOURS

Mon -Fri. 7 AM-5PM; Sat.: 7 AM-Noon  
Visit Our Web Site [www.hooper.com](http://www.hooper.com)

**CALL US...**  
It Could Be We Have It

**CASE III**

Authorized  
UPS Station

### YOU STAY PUT



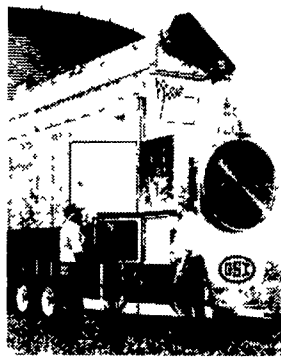
Pick Up  
Your  
Phone And  
Place Your  
Parts  
Order  
With Us

## EMHERR EARLY ORDER PRICING!



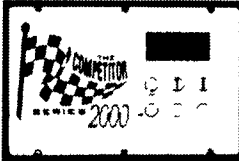
provides personal service to every customer. That keeps us one step ahead of the rest.

- Weight-Tronix Feed Mill
- Transport Augers
- Bucket Elevators
- Strring Systems
- Utility Augers
- Feed Bins
- Wet Tanks
- Grain Bins
- Air Drying Systems
- Grain Dryers
- Parts & Motors

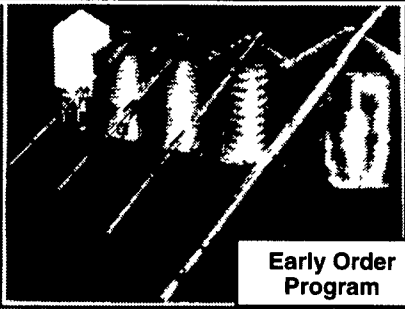


GSI AIRSTREAM

### AUTOMATIC BATCH OR CONTINUOUS FLOW GRAIN DRYERS



*The Competitive Edge*  
"Smart system" eliminates guesswork



### WESTFIELD GRAIN AUGERS

Quality Product At An Affordable Price!

In Stock NOW!

### GRAIN SAVER

### Commercial Auger



- HEAVY DUTY SPIDER CAGE GUARD
- 10 GA HEAVY DUTY FLIGHTING
- 14 GA GALVANIZED TUBING
- HEAVY DUTY 3/4 TREADED HEIGHT ADJUSTMENT
- DURABLE ONE PIECE MOTOR MOUNT
- DURABLE ABS SPOUT
- 1 1/2 OR 2 GROOVE PULLEY
- POWDER COAT LONG LASTING

4"x11'...\$109	6"x11'...\$209	8"x11'...\$309
4"x16'...\$139	6"x16'...\$249	8"x16'...\$379
4"x21'...\$159	6"x21'...\$309	8"x21'...\$499

We Stock Hundreds of Augers. Your Auger Headquarters.

★ Full Line Parts Dept. ★  
★ Sell, Service & Install ★

Rt. 272 South  
14 Herrville Road  
Willow Street, PA 17584  
Ph. 717-464-3321 or  
Toll Free 800-732-0053



Mon.-Fri. 6:30 am to 8 pm  
Sat. 7:30 am to 6 pm  
Sun. Closed

UPS Shipping Point