# Baxendale "unmasks" masked chafers

**LINCOLN, NEB.**— A hot, dry summer in the Plains states meant lower than normal populations of grubs and caterpillars in the turf there this fall. But for Frederick Baxendale, Ph.D., professor of entomology at the Univer-



Birds destroyed turf looking for grubs on untreated fairway.

sity of Nebraska in Lincoln, research activity was never busier than it was in September

"We've been in the field conducting research 28 out of 30 days during the month," said Baxendale. "The new generation of turf insecticides, particularly preventives with wide application windows, have created the need to evaluate products over longer periods of time. It's really exciting to work with this growing number of new, highly effective products."

On September 5, for example, Baxendale and others from the university joined with representatives of RohMid, makers of Mach 2

turf insecticide, to evaluate results from three sets of test plots of Mach 2 and Merit insecticide from Bayer. The tests were conducted on fairways at the Pioneers Golf Course and the Holmes Golf Course, Nebraska's busiest golf course.

The target was the southern masked chafer grub.

"Masked chafer grubs are slightly larger than Japanese beetle grubs, but the damage they cause is nearly identical," said Baxendale.

He said that white grub adults, including the masked chafer, lay their eggs selectively. "Grubs prefer soil that is moist, so the unusually hot, dry weather made it necessary for the female beetles to work a lot harder to find patches of turf irrigated by sprinklers or that were shaded from the hot sun by trees to lay their eggs.

"In two of the three plots, we found plenty of chafer grubs in the control plots. Mach 2 and Merit both provided excellent control in the plots where the products were applied in June. It appeared to us that while the number of live grubs in the August-applied plots was higher than we would have expected, we may have conducted our evaluation a little too early to see complete results. We saw reduced movement and skin discoloration in most of the grubs from the August plots. In another week, they likely would have been goners."

Baxendale stressed timing when treating for grubs.
"Grubs do the most damage at the third instar stage," he said. "That's also when damage typically first becomes apparent. If curative treatments are to be used, timely and accurate identification of the problem is absolutely necessary, because turf damage occurs with increasing rapidity.





Dr. Baxendale: timing critical for grub control.

# Rotary mower sales to rise in '98

Shipments of all types of commercial riding rotary turf mowers will grow by just over 5 percent in 1998, reaching 53,396 units, says a forecast made in November by the Outdoor Power Equipment Institute (OPEI). The outlook for 1999 is 55,692 units sold in the United States, another 4 percent increase.

The sale of commercial intermediate-size walk-behind rotary mowers should stay about the same in model year 1998 as they were in 1997, predicts the OPEI. Shipments in 1998 should reach 49,341 units and in 1999, a gain of 1.5 percent to 50,081 units.

The OPEI predicts a 2.5 percent increase in sales in 1998 for consumer walk-behind mowers, and equally modest increases for front-engine lawn tractors and riding garden tractors. Sales of walk-behind tillers should remain about the same, while the number of rear-engine riders will continue to fall.

The model year for the above equipment is Sept. 1 through Aug. 31 of the following calendar year. This is OPEI's eighth forecast for commercial turf care equipment.

#### >HOT TOPICS

cont. from page 12



RohMid team helped Dr. Baxendale with grub dig this past fall.

In addition, when the grubs are at their largest and most destructive, birds, raccoons, skunks and other animals also discover the grubs more easily and tear up the ground pecking or rooting for them.

"In fact, within 200 feet of

our plot at the Holmes Golf Course was a small portion of turf that had not been treated for grubs, and the birds were having a field day. The damage was pretty significant."

#### Scotts hosts herbicide summit

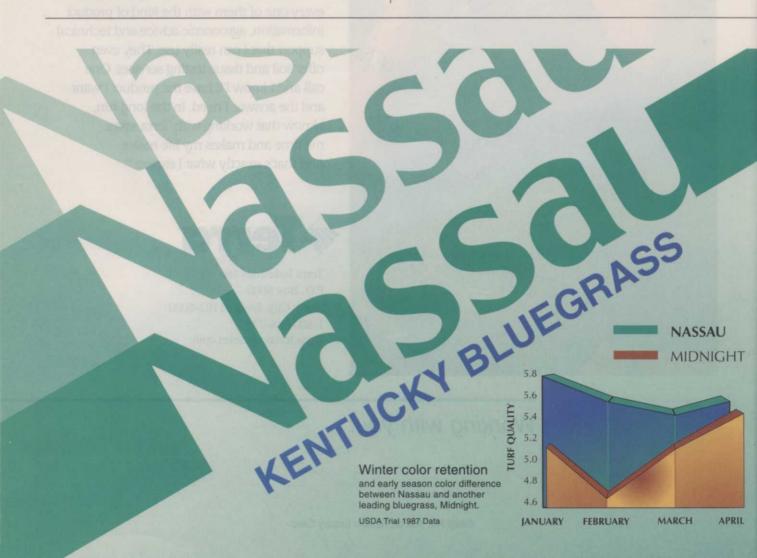
The Scotts Company Marysville, Ohio, hosted a Pre-Emergence Turf Herbicide Symposium when experts from 10 universities exchanged data about the performance of pre-emergent herbicides.

The participants interacted with Scotts researchers and Professional Turf group associates to provide feedback and direction for new product development.

The Scotts Company has research field stations in Marysville, Ohio; Cleveland, Texas; Apopka, Fla.; and Gervais, Ore.

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## Riverdale, Dow make deal

#### INDIANAPOLIS-

DowAgroSciences signed a partnership agreement with Riverdale Chemical Company ("Riverdale") granting Riverdale the rights to market triclopyr and clopyralid chemistry in combination with phenoxy herbicides for broadleaf weed control in turf markets. Included are professional and consumer turf markets, sprayable and granular formulations and weed and feed products.

Riverdale's first entries are in the professional sprayable

broadleaf weed control markets. Cool Power<sup>TM</sup> and Horsepower<sup>TM</sup> herbicides were introduced in the spring of 1997 and their newest product, Millennium Ultra<sup>TM</sup> herbicide, is being introduced this fall. Riverdale anticipates at least nine new products scheduled for introduction over the next five years.

### El Niño explained

The weather pattern known as "El Niño" is getting buckets of publicity in 1997-'98 as opposed to other years. But what, exactly, is an "El Niño"?

Rhône-Poulenc Ag Company provides this definition: "a recurring appearance of warm surface water in the central and eastern equatorial Pacific Ocean."

Pacific trade winds blow east to west, pushing the warm surface water from the west coast of South America across the Pacific. However, during an "El Niño", the winds stop or reverse. This disruption produces worldwide climate abnormalities, including severe rain and floods in the United States. December through February, cooler, wetter weather will be felt across the entire southern tier, while a drier winter will plague the north. In the southeast, fewer hurricanes will appear, but rain will undoubtably dominate the forecast, says Rhône-Poulenc.

Sure enough, Florida's December rainfall was 10-inches above normal for that month.

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