

# New insecticides excel at 'Grub Dig'

by RON HALL / Senior Editor

*'Diggers' from RohMid were encouraged by promise of Mach 2 insecticide against grubs, black cutworms.*

**N**ew chemical products are changing the way turf managers approach insect control, specifically white grubs and cutworm control.

One promising new product for grub control is Merit from Bayer Corp., Kansas City. It's being sold and used by turf managers. Another is Mach 2 which is being readied for a spring 1997 debut. This insecticide will be marketed by RohMid, a marketing partnership of American Cyanamid and the Rohm and Haas Company. RohMid is based in Parsippany, NJ.

These insecticides represent new chemistries, at least to the turf market. As this is being written, Mach 2 awaits final approval after being placed on the regulatory "Reduced Risk" track, a process established by the U.S. EPA for products posing fewer exposure and environmental risks than older pesticides.

Although Mach 2 (halofenozide) and Merit (imidacloprid) control grubs through different modes of action, tests at various research sites indicate that they do indeed control grubs.

Turf managers will also find out that these prod-

Employees from American Cyanamid and Rohm and Haas spent three days digging and learning about grubs, cutworms on RohMid tour.



(l. to r.) Glen Swingos, Twin Oaks GC; Tom Hartig, Meadowood GC; and Al Apking, Apking Lawn Service spoke frankly about insecticides at a roundtable in Covington, KY, during the 'Grub Mania '96' tour.

ucts can be applied relatively early in the growing season to control grubs before they become numerous or large enough to damage turfgrass. (Once grubs reach the largest, third-instar stage, "curative" applications of products like Dylox, Proxol, Turcam and diazinon work better, says Dr. David J. Shetlar, turf entomologist with The Ohio State University.)

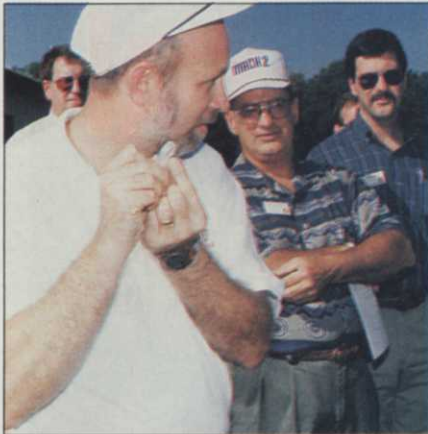
Both Merit and Mach 2 showed excellent control of white grubs at the 1996 "Grub Dig" this past October, Mach 2 even against second instar grubs in one experiment. The Dig, directed by Dr. Harry Niemczyk and Dr. Shetlar, is an annual fall event at the OARDC/OSU Campus in Wooster, Ohio. Usually, several dozen volunteers join Niemczyk and

Shetlar and research associate Kevin Power to shovel up squares of turf from test plots on selected golf courses and at the OARDC campus. The plots have been treated with different products and/or formulations. Some plots, of course, are checks; they have not been treated.

This was an unusual dig in the 25-plus years that Niemczyk has directed them.







Dr. David Shetlar, left, explained the basics of grub biology to the RohMid group.

RohMid Manager Dr. John Thomas, three members of the RohMid board, and about 25 other representatives (mostly sales) from parent companies American Cyanamid and Rohm & Haas, helped. With so many extra workers, the dig finished in one day instead of the usual two.

From Wooster, the "Mach 2 Technical Tour" contingent traveled by bus to Columbus, Ohio, and visited, first, the TruGreen/ChemLawn production facility north of the city and, later, the nearby TG/CL research facility.

Sales of add-on grub services "are very customer driven," TG/CL's Dr. Amy Sugars told the group. The lawn care company sells grub control to approximately 20-25 percent of its customers in areas where grubs are a problem, she explained. Since the introduction of Merit, TG/CL has offered customers this service weeks earlier in the season. The company still provides later treatments to customers who prefer that.

The following morning the bus tour concluded at the University of Kentucky, Lexington, where entomologist Dr. Dan Potter explained the significance of his work, much of it directed toward control of black cutworms. He too had encouraging news for the RohMid contingent.

In one experiment, Potter made applications of Mach 2 to a USGA-spec putting green which was mowed and watered daily. The clippings were gathered and

## 'Naturalyte' product controls webworms, cutworms, armyworms

A new "Reduced Risk" control product from DowElanco has passed the drawing board stage and is expected to hit the market by third quarter 1997.

Conserve SC (Suspension Concentrate) is the first in a new class of control products, called 'naturalytes,' naturally occurring metabolites that combine the efficacy of synthetic insecticides with the environmental compatibility of natural insect control products.

DowElanco reports favorable feedback from sites with Experimental Use Permits for Conserve SC. Golf courses and nurseries have been the primary test sites, and future information is being sought to support university trials.

In turfgrass settings, DowElanco reports Conserve SC provides excellent control of:

- ▶ sod webworms;
- ▶ black cutworms;
- ▶ fall armyworms.

In ornamental settings, Conserve SC controls:

- ▶ lepidoptera; insect pests such as: bagworm; E. tent caterpillar; gypsy moth; many others
- ▶ Chrysomelid leaf beetles;
- ▶ thrips;
- ▶ sawflies;
- ▶ dipterous gall midges;
- ▶ leafminers.

Conserve does not appear to control Japanese beetles, grubs, *Hyperodes* weevil, mole crickets, ant (mounds) and chinch bugs.

To date, there has been no phytotoxicity reported. DowElanco expects Conserve SC to be granted a caution label when registered, which signifies the lowest risk category given by the Environmental Protection Agency.

"This will be DowElanco's first offering of a product in the naturalyte class," says Mark Urbanowski, new products marketing manager for DowElanco's Urban Pest Management Business.

Conserve SC is being given a "Reduced Risk" review by the EPA, due to its low risk to humans and the environment.

The active ingredient in Conserve is a non-volatile crystalline solid, with a very low odor. It acts on the insects' nervous system, and is transmitted through injection or contact by the pest. The active ingredient is called spinosad (pronounced spin-oh-sid), which is composed of the metabolites spinosyn A and spinosyn D.

"DowElanco continues to pursue world class technology that does not compromise on safety or efficacy," says Urbanowski. □

taken back to the laboratory where they were fed to second instar cutworms.

"We got very good control of the black cutworms even three weeks after we treated," he said.

"We seem to have three weeks residual from a single application against small cutworms in a golf course putting green management situation which is very promising to me," explained Potter. "But, we need to do a little bit more work to see if it (Mach

2) will give us an economic level of control against the big cutworms."

Test results from just two locations during a single season do not provide enough information to give an accurate picture of a new product's potential usefulness. "There are certain years when any grub control can be a winner," said Dr. Shetlar. "There are other years when only certain products will be a winner." **LM**