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Ahh, television news in the 90s.

Tabloid journalism has sneaked its way onto the airwaves. And the pursuit of facts seems to have been replaced by the pursuit of ratings.

So the specialty pesticide industry needs a media watchdog that not only watches. But that also takes action.

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RISE is a coalition of manu-

facturers, formulators and distributors from all areas of the specialty pesticide business.

In addition to promoting environmental stewardship, RISE makes sure the media doesn't report misinformation as fact.

We also hold editorial meetings with media decision-makers. And respond to negative articles or broadcasts that are incorrect. We've been very successful so far. Not surprising considering what

our most powerful weapon is. The truth.

Of course, there's still a lot more work to do. But rest assured, RISE is up to the task.

Because we know if we eliminate air pollution, the pesticide industry can breathe a lot easier.



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Grubs: digging for answers

by RON HALL / Senior Editor



Dr. Harry Niemczyk, standing, gives volunteers data arising from the second day's dig at the Valley View Golf Course in Akron.

There's nothing fancy about a Harry Niemczyk grub dig. I can say that from first-hand experience.

But you should be excited about what we "diggers" learned this past fall: several new chemical products and one strain of BT show excellent promise as grub controls.

Some of the control products, the "dig" indicated, provide excellent control in these particular plots. Notable were Bayer's Merit, a strain of *Bacillus thuringiensis* (Bt) being readied for market by Mycogen Corp., and a compound submitted jointly by American Cyanamid and Rohm & Haas Co. This last molecule is being described as a molting inhibitor and is scheduled to receive an EPA experimental use permit next season, say sources at the dig.

Here's the discovery process we used:

1) Spade out a small square of earth.

2) Get down on your knees and start crumbling soil from the small chunk of sod.

3) As the soil falls into the plastic kitchen tub, pluck out the plump gray grubs and drop them into what looks like an empty cottage cheese container.

4) Count the grubs, some no larger than the head of a wood match.

"Rep 1, plot 3, no grubs," shouts one of the 15 volunteers, both men and women.

"Rep 1, plot 6, two grubs," shouts another. For two full days, that's the language of the grub dig. Some plots contain many grubs; some contain just a few; some contain none. Diggers yell out what they've found in each square plot.

Dr. Niemczyk records on a clipboard our numbers as he walks among the wooden stakes marking the boundaries of the individual test plots. We're digging to determine the effectiveness of various control products. Technicians applied the products in different formulations and rates to the test plots weeks prior to the dig.

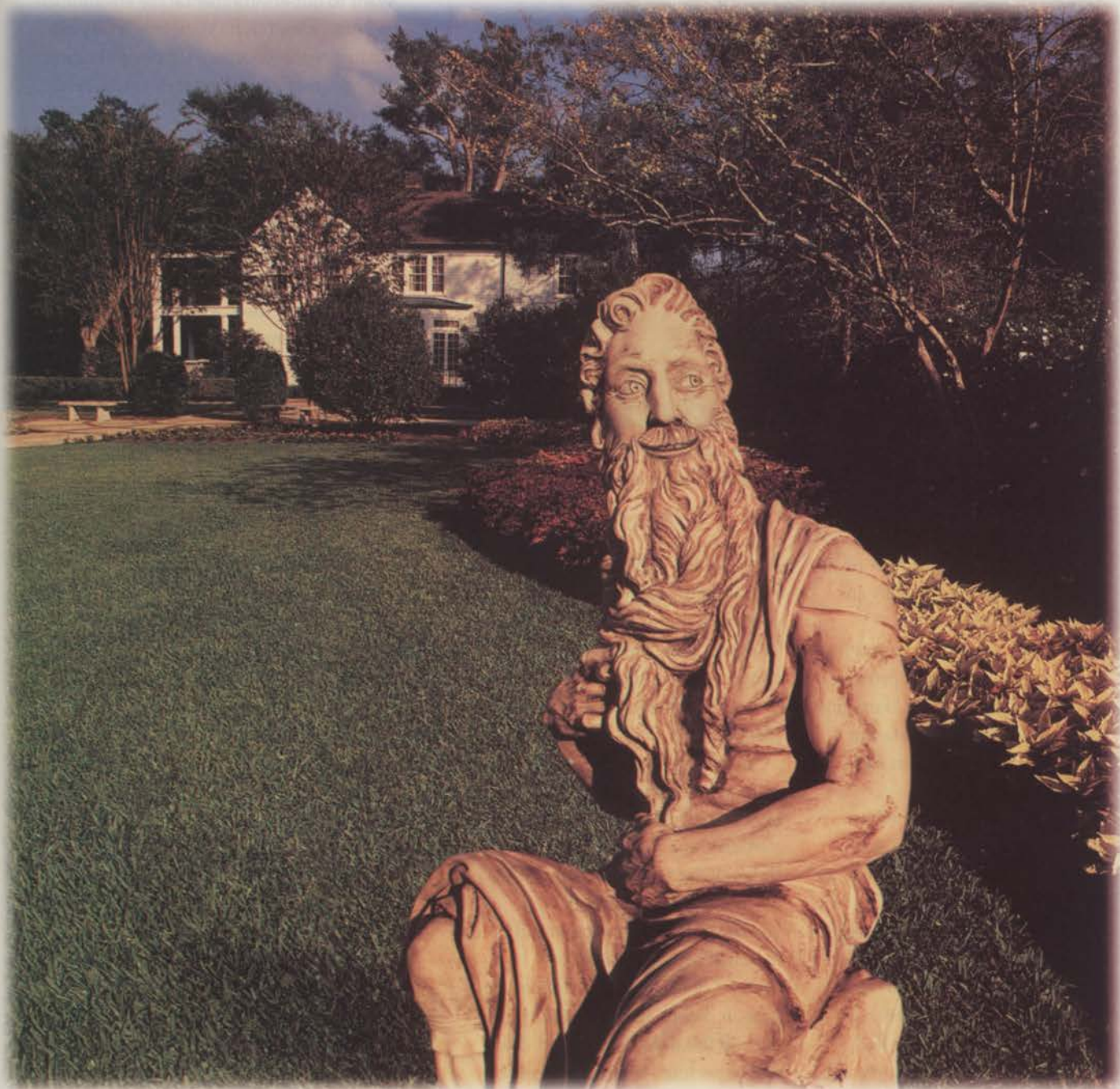
What does what

Some of the products applied to the plots are familiar to us—Dursban, Merit, diazinon, Sevin; some aren't because they've not yet come to market. But as we work, we're not aware which products were applied to which plots. (Nor do we care. We just dig, count, and shout out the number of grubs we've turned up.) Control plots,



About 15 volunteers, including representatives from companies testing products in the plots, dig and count grubs. Some make the dig an annual event.

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It wasn't hard to find Japanese beetle grubs in some test plots. They'd grown fat in the roots of turfgrass plants, particularly in the controls.

because of the large number of grubs they contain, virtually announce themselves.

At lunch, over burgers and fries, we do finally learn what products were used. That's when Harry and Dr. David Shetlar tabulate the number of grubs found in each replication.

We find two types of white grubs basically, Japanese beetle grubs and masked chafer grubs. They're easy to tell apart. The "mc" grubs are further in their development and about twice the size of the "jb" grubs. They also have a light brown head and there are much fewer of them. We find most of the grubs in the turfgrass roots, and at the thatch layer, but a significant number perhaps an inch, in some cases about two inches, in the soil.

Harry's been directing the digs for more than 25 years at various northeast Ohio locations. This year we work on plots on the 15th fairway of the Twin Lakes Golf Course in Mansfield, Ohio, and in a rough

at the Valley View Golf Course in Akron. Both afternoons we dig in a commons area at the OARDC in Wooster. A dig has never been rained out, says Harry, although once a wet snow briefly covered the plots.

Growing fat

Grubs are the most damaging insect pests of turfgrass in the northeast and a major problem in the midwest too. By the time they reach the third instar they've grown fat on turfgrass roots and thatch. Then, when heat or drought of late summer stresses the grass, it dies in irregular patches. Peel off the dead layer of turf like you're peeling an orange, only the turf comes off much easier. Sometimes, skunks and crows find the grubs and eat them. They worsen the turfgrass damage.

None of this is probably news to you. But what might surprise you is the amount of money Americans (both professionals and homeowners) spend to control grubs. A representative of a major chemical com-

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box," says Christi Ballard of Four Corners. "But everyone felt three 'nines' would be more appropriate—one for the front, one for the back and one for good luck."

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pany at the dig estimated the "grub market" at \$50 million annually.

Dr. Niemczyk will provide a detailed look at grubs and their control, and what the 1995 grub dig uncovered on the opening day of the Ohio Turfgrass Conference, Tuesday, Dec. 5, in Columbus, Ohio. Look for our report of his findings in LANDSCAPE MANAGEMENT's spring insect control issue.

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NASA's synthetic soil may mean less fertilizer, pollution on Earth

Imagine a flower bed that needs fertilizer only once every few years yet has a higher annual fertility than is capable with any mix of current fertilizers. And it would have less potential to pollute, to boot.

A soil to allow such fertility may soon come from space.

NASA's Johnson Space Center in Houston is working on zeolite soil, a synthetic soil system with the capability of time-releasing nutrients, perhaps over a period of years.

The key to the substance is a group of minerals called zeolites, which are found commonly across the western states as chalky, white rock. But they have the ability to adsorb and hold plant nutrients. And they can be engineered to time-release the

nutrients, according to NASA's Doug Ming, a researcher at Johnson Space Center.

Zeolite can store nitrogen and potassium; another NASA-developed supplemental mineral called synthetic apatite can similarly store the other essential plant nutrients (phosphorus, calcium, magnesium, sulfur, iron, zinc, manganese, copper, molybdenum, boron and chlorine).

The enriched zeolite and synthetic apatite are mixed together to form the zeolite soil mix, Ming says.

Original research stemmed from a problem of how to grow plants in the lunar soil and turned into a project involving hydroponics—growing plants in a precisely controlled and circulated nutrient-rich water solution—such as was planned to be used aboard spacecraft.

"We have continuously grown wheat in a zeolite soil mix for 225 days and still had 85 to 90 percent of its total fertility left," Ming says. "With its absorption and holding characteristics, it could provide a cost-effective solution to the increasing problem of pollution from fertilizers and their runoff."

If commercial concerns can reduce the expense involved in creating the zeolite soil, the potential for widespread use is great, NASA believes. In addition to a type of zeolite soil mix as a fertilizer, just the synthetic apatite could have potential as a fertilizer, providing the secondary and trace nutrients, Ming adds.

Future research may even reduce the need for watering by combining the zeolite soil mix with already-known materials that absorb water from the atmosphere.



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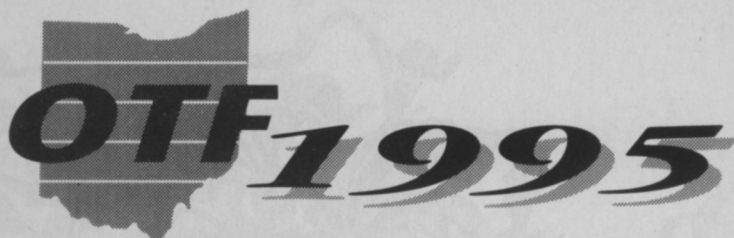
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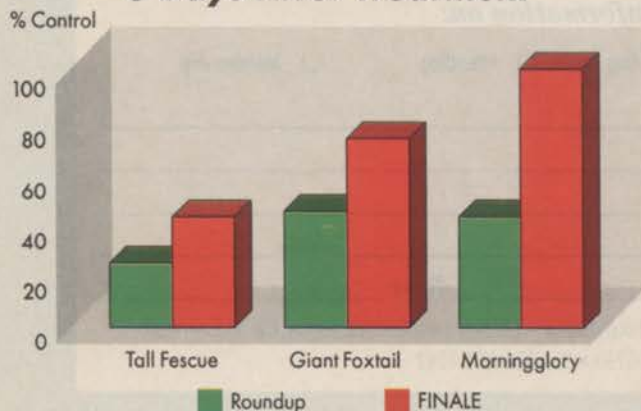


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Circle No. 101 on Reader Inquiry Card

[CHASING GEESE]

A Canada goose is wondrous in the air but one of God's most hateful creatures afoot. Noisy. Willful. Aggressive. Get too close to a Canada goose and it'll spread its huge wings, extend its neck like a cobra and hiss with all the menace it can generate.

The late Ken Erhmann hated Canada geese. Ken was in charge of our grounds for about six years prior to this retirement which, unfortunately, he got too few years to enjoy.

It's because of Ken and his successors that the landscape here at the headquarters of Advanstar Communications in suburban Cleveland is a showcase of turfgrass and flowers.

I immediately thought of Ken when the description of a new product, Rejex-It, came across my desk. Apply it to turfgrass (or wherever you need it) and safely repel geese and other waterfowl, say product promoters.

Ken went to incredible lengths to protect our grounds—sometimes employees too—from geese.

It gnawed at him to see geese show so little regard for his handiwork as to rip the turfgrass out by its roots, not to mention the messes they made in the parking lot and on the walkways.

Tom Sprague's in charge of our grounds now. He doesn't like geese any better than Ken did. Tom, however, uses a different strategy.

If Tom decides he's had enough of a particular

goose (and he swears he can often tell one from another), he charges it, waving his arms and shouting like a madman. His face is so full of mayhem that the goose immediately takes off.



Tell us how you keep geese from destroying your turfgrass. At least, tell us what you've tried, and how effective it was. If we publish your idea—it doesn't have to be fancy or anything—we'll send you an official Landscape Management baseball cap.

(If you've got a turf or landscape problem you'd like to see discussed on this page, tell us.

Canada geese flee when Advanstar grounds manager Tom Sprague approaches. What's your solution to this common problem? It could earn you a free "Landscape Management" baseball cap (see below).

Your turn

Every other month, we report what readers think about current topics in LANDSCAPE MANAGEMENT. Tell us your solution to **CHASING GEESE** from the property. Tear out or photocopy this page and return it to us. If we use print your answer in the next "Talk Back" column, you'll receive a free high-quality "Landscape Management" baseball cap. Deadline for responses: December 1st. Fax to: (216) 891-2675 Mail to: LM Talk Back, 7500 Old Oak Blvd., Cleveland, OH 44130 E-mail to: 75553.502@compuserve.com

Do/did you have problem Canada geese on your property?

- Yes COMMENTS _____
 No _____

What methods have proven ineffective in controlling their presence?

COMMENTS _____

What particular method has proven most effective in controlling their presence, and why?

COMMENTS _____

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