it's close enough. From this average, sub-tract 50^{0} F, the threshold temperature.

If the remaining number is a positive number, it means insects have developed correspondingly. Record this number and add them daily as they accumulate. These are DDs, and the number will grow as spring settles in and summer approaches. If, for a certain day, you get a negative number, record a "0."

Shetler says temperature is an excellent

prediction tool because it's based on the biology of the insects, but it's not the total answer.

LAWN CARE INDUSTRY

"Even though we have these degree-day models, some insects don't follow our idea of degree-day," says Shetler. "They may need other environmental requirements for them to become active."

For example, during the summer of 1988, which was unusually warm and dry, the DD model predicted the outbreak of masked chafer adults in the first week of June. Instead, they didn't peak until the first week of July, immediately after one of the season's first rainfalls.

Shetler suggests that turf managers take the degree—day concept and meld it with their own observations and inspections. Then, he says, they should be able to develop application strategies that target specific insect pests when treatments will be most effective.

-Ron Hall

Do-it-yourselfers: they're the risk

This open letter to LM readers says everybody should play by the same rules: Either we all have to post and pre-notify or nobody should.

To the editor:

LCOs have been successful in identifying themselves as "The Source" for information and expertise on home lawn care. In fact, a number of retailers are now introducing a four- or five-step program, which is just a copy of a basic professional lawn care program.

Because of this leadership position, the LCO also receives the "brunt" of, or is the target of, most of the anti-fertilizer and anti-pesticide crusade.

The LCO is required to post lawns following fertilizer and pesticide applications in some locales. Elsewhere, pre-notification is also required.

The LCO is responsible for identifying the products used in their respective programs. Instructions along with *dos* and *don'ts* are provided to the homeowner when applications are made. In many instances, Material Safety Data Sheets are given to the homeowner.

At the same time (generally unknown to the consumer) the LCO is constantly monitoring, measuring and calibrating to insure precise application rates, noting wind direction and velocities so that materials are applied accurately and precisely. Applicators use proper personal protective equipment while making applications and legally dispose of empty bags or containers.

Meanwhile, the homeowner can go to the retail outlet, purchase the products he or she thinks they need, go home and apply these products with little or no concern (or thought) given any of the above restrictions or precautions. In most cases, they do not have to post or pre-notify while using the same products (chemistry) as the LCO!

If posting and/or pre-notification is required by the professional, does it make any sense to look the other way for homeowner applications? Seems to me that *everyone* making fertilizer and pesticide applications should be required to post or pre-notify, or *no one* should be required to post or pre-notify. I have never met an LCO who was opposed to abiding by these requirements. He simply wants and deserves the same considerations the homeowner applicator currently enjoys.

Actually, posting is really the easy part of the job. The real difference is much greater and should be the reason why homeowners hire lawn care professionals. Briefly, LCOs:

1) are properly trained/certified. They can correctly identify or diagnose the pest in question so that the proper product selection can be made. Further, the application is made at the right time and with equipment which has been correctly calibrated—no mess and no waste for the homeowner. 2) save time for the homeowner and negate the need for application equipment purchases and maintenance. The homeowner doesn't even sharpen the mower blade as recommended, let alone own and maintain the necessary application equipment.

3) handle problems as problems develop. Re-treatments are provided, generally at no charge. This is important because the homeowner has to make another purchase and sometimes ends up with partially filled bags which, after sitting in the garage for a few months, are thrown out with the garbage. Other times, in an effort to empty the bag, the material is applied at two and three times the recommended rate.

4) provide sound advice with mowing, watering and other cultural practices that better enable the homeowner to have a good-looking lawn.

To LCOs, I would say: "It is time to speak out or up for what you are really doing: providing a necessary service at a fair price in a professional (i.e. environmentally sound) manner."

To lawmakers: "Gather all evidence and base your long-range thinking on scientific fact."

> —Ron Mau Howard Johnson's Enterprises Milwaukee, Wisc.

The beat of a different drummer?

Developers of alternative lawn care programs say the message to clients should be agronomic, not anti-chemical. When the first winter storm blunders up the Sycamore-rimmed Wabash River Valley like a tired wet dog, it can bring curtains of wet, thumb-sized snowflakes. Or, just as likely, freezing rain.

That's when Route 25 in west central Indiana turns grim and dangerous.

Through summer and autumn, this

LAWN CARE INDUSTRY

savs.

doesn't want my service," he

use chemical pesticides, but

Flory doesn't make a big deal

of it. Instead, he looks for an

agronomic reason for a par-

ticular lawn problem. Failing

that, he investigates and tests

nematodes to counter grub

infestations in client lawns.

They worked well. Within sev-

Last fall he tried beneficial

Freedom Lawn doesn't

winding two-lane can slip into a Norman Rockwell canvas of ripening corn and clusters of brickfront ranch homes with attached garages, every third or fourth one of these sporting a basketball backboard.

This is not, on first appearances anyway, prime lawn care country. But Brent Flory, a slender, handsome man whose Brent Flory is turning boyish brown hair is graying at the temples, is building a tight little natural lawn care company around it.

Delphi, Ind., a dot on the road map, is headquarters for his Freedom Lawn. But the company's market extends into Lafavette, home of Purdue University, about 20 miles to the southwest.

The residential lawns Freedom Lawns service are, in addition to being a business. Flory's laboratory. A self-described agriculturist, he's using Freedom Lawn to build a natural lawn care template for other lawn professionals. When he feels it's ready, he will market what he's learned.

The cornerstone of his efforts are the fertilizers he's developing. "We do put a great variety of materials into these mixes," says Flory.

He insists the lawns his company services compare well with chemically maintained lawns in about everything but weed control. Sometimes even that. "If the customer doesn't want to see a weed, he



home lawns into his laboratory.

eral weeks the grubs had died.

This past spring Freedom Lawn used nematodes again, but control wasn't as predictable. "Some of the lawns did guite well, some of them got whipped up," says Flory. He says he will test milky spore for grub control also.

natural solutions.

The Indiana businessman insists he's not anti-chemical. "I don't believe in that kind of hype," says Flory. "I don't think the commercial lawn care operator using chemicals is an enemy of mine."

Mark Miles, like Flory, comes from a farm background, And, like Flory, Miles entered the lawn care business, at least in part, to develop an alternative program for professional lawn care. He started Organic Lawn Care in 1986. (He still describes it as "a big experiment.") This past season it serviced 35 million square feet of lawns in and around Minneapolis, Minn.

Organic Lawn Care uses several natural fertilizers (which Miles helped develop himself), bio-activators, soluble humic acid, etc. It also sells these products to the professional market.

In fact, Miles' operation offers a complete alternative lawn care program package with training and marketing manuals, customer information, support literature, and products.

"We're not saving chemicals are taboo," says Miles. "But in many cases they're being used as a convenience and they're being used too much."

Miles admits that his company, Organic Lawn Care, will make a single herbicide application per property upon request of the property owner. "But we tell each customer we are not a weed-and-feed service. We'll spray the weed control only after they've agreed to help us fix the problem that caused the weeds." Similarly, company technicians may, on occasion in the spring, make spot applications of pendamethalin on particularly troublesome patches of crabgrass.

"The long-term solution is to find out what conditions are causing the crabgrass and then to correct these," says Miles.

"I'm not going to say what's pure. Who knows what's pure?," says Miles. "But, by the time a person buys the service from us. we've tried to identify all the good and bad points. They'll have an understanding of what's organic and what's not."

-Ron Hall

Turfgrass: It's not enough to be dwarf, you've gotta be tough, too

The search for turfgrasses that need fewer mowings and/or produce less clippings is at least 20 years old, likely older.

This quest invariably leads back to the subject of turfgrass dwarfness which researchers likewise have been seeking for at least 20 years. For example, Dr. Terry Riordan, now at the University of Nebraska, says dwarfness was one of the characteristics he sought in turfgrasses he worked on in Florida in 1970.

In fact, he said, one grass he refers to as a "no-mow bermudagrass" looked promising until it encountered stress. Then it died. It had little recuperative potential. Nematodes ravaged it.

"It would be nice to have a grass we don't have to mow as much but we still have to have some vigor from the plant," says Riordan.

That's the catch: the turfgrass plant that doesn't grow as high or as quickly (and doesn't replace its leaves as guickly or often) must also possess unusual agronomic vigor to survive in home lawns or on golf courses. With heightened concerns over pesticide issues, plant breeders also seek some level of pest tolerance from the plant. And they want turfgrasses that can compete against weeds.

No single variety of turfgrass can accomplish all this.



That's why plant breeders continually seek improvements in all varieties. Progress is exceedingly slow but steady.

Riordan, who has several turfgrass patents as a result of his research, says the work on dwarf tall fescues is particularly encouraging but far from over.

"Growers can see that they're dwarf because they don't grow as tall as other grasses in the field," says Riordan.

"But we really need to do a better job in finding out how these turfgrasses perform and how much clipping reduction we're going to get from them. We do not really have it well documented," he says.