

LAWN CARE INDUSTRY

Degree day = D-Day for turf pests

A leading entomologist says turf managers, with some simple temperature calculations, can anticipate insect problems.

■ Can you plot the timing of your turf insecticide applications while reading the morning newspaper?

Yes. And it may help you control turf-damaging pests better than you do now, particularly if you get off your keester and balance your morning forecasting with representative lawn inspections, too.

The process, explained by Dr. Dave Shetler at the Ohio Turfgrass Conference, can translate into less insect damage to clients' lawns, fewer customer complaints and, hopefully, fewer service calls.



Shetlar: Knowing degree days can reduce service calls

Temperature is the key.

The life cycles of all insects are, in one way or another, linked to temperature.

That's what you'll be plotting from the morning paper, temperature, more specifically a measurement of temperature known as *degree days* (DDs). Certain turf pests become active during the course of a growing season when certain DDs are reached.

What you want to do is add up DDs as the season progresses, then inspect representative lawns as a particular turf pest's DD range arrives. If the number of pests—as determined by your inspections—reach a threshold you consider to be turf damaging, then it's time to use a control.

But how do we figure DDs?

Actually, there are several methods and all but one are somewhat sophisticated, says Shetler, a landscape entomologist at Ohio State University. Fortunately, the simple way of figuring DDs is accurate enough to predict outbreaks of most turf insect pests.

Shetler says he starts with a base of 50°F. Few insects develop below that temperature. He begins DD calculations on March 1 in

Ohio. (The further south you are, the earlier you should start calculating DDs.)

You can chart DDs in the morning over a cup of coffee in front of a newspaper, or get the previous day's high and low temperatures from the television or radio. Add the day's high and low and then divide the total by two. This gives you a crude average, but

DEGREE-DAYS FOR SOD WEBWORMS AND WHITE GRUBS

Target pest	Base 50° F
Larger sod webworm (1st generation)	1050-1950
Larger sod webworm (2nd generation)	2600-3010
Bluegrass sod webworm (1st generation)	1250-1920
Bluegrass sod webworm (2nd generation)	2550-3010
Cranberry girdler	1700-2750
Northern masked chafer (1st adults)	898-905
Northern masked chafer (90% adults)	1377-1579
Southern masked chafer (1st adults)	1000-1109
Southern masked chafer (90% adults)	1526-1679
Japanese beetle (1st adults)	1050-1180
Japanese beetle (90% adults)	1590-1925

Source: Dr. Shetlar

HOW TO FIGURE DDs FOR 7 DAYS

Day	1	2	3	4	5	6	7
Max. temp.	70	75	60	55	65	75	82
Min. temp.	40	45	40	35	45	50	54
Avg. temp.	55	60	50	45	55	63	68
Avg.-base	5	10	0	-5	5	13	18
DD (base 50°F)	5	10	0	0	5	13	18
Cumulative DD	5	15	15	15	20	33	51

Source: Dr. Shetlar

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it's close enough. From this average, subtract 50°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.

"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

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 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 Lafayette, 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



Brent Flory is turning home lawns into his laboratory.

doesn't want my service," he says.

Freedom Lawn doesn't use chemical pesticides, but Flory doesn't make a big deal of it. Instead, he looks for an agronomic reason for a particular lawn problem. Failing that, he investigates and tests natural solutions.

Last fall he tried beneficial nematodes to counter grub infestations in client lawns. They worked well. Within several weeks the grubs had died.

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

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 saying 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 quickly 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.

Composting: it's not a backyard hobby anymore

Will yard waste landfill bans boost the growth of compost facilities, spur a green industry demand for recycled waste products?

■ Most lawn and landscape service professionals haven't made up their minds about compost yet.

They're not sure they want (a) to produce it, (b) to take their landscape waste to someone else to produce it, (c) to use compost in their own services, or (d) to sell it.

Woven through these doubts is the dollar sign. And, of course, knowing what compost is and what it can or cannot do.

Many in the green industry are just now educating themselves about the material.

"I think at first you're going to see everyone gaining some interest and knowledge about composting," says Ed Janesz of Kurtz Brothers, Inc., Cleveland, a major supplier of compost, topsoils and other landscape materials in Ohio.

Compost is an accumulation of organic matter augmented with soil and nutrients to provide decomposition. It can be made from a variety of organic waste materials.

It's produced through aerobic microbial processes. Unless oxygen is present or provided through periodic mechanical turning/aeration, the process turns malodourously anaerobic.

The finished product is dark, moist and all but odorless. It's most often used as a soil conditioner or mulch, something that's added to the soil or something that's spread on top of it. It's not classified as a fertilizer because its N-P-K analysis is extremely low, although it does contain trace elements that plants need. It generally has a pH of between 6.9 and 8.1. Part of the value of compost lies in its ability to hold nutrients in the rootzones of plants.

Increasingly, composting is discussed as an alternative to dumping landscape wastes, primarily leaves and grass clippings, in landfills. Even the most optimistic concede it'll be a partial solution at best.

Even so, thousands of tons of leaves and grass clippings will be entering the Ohio recycling stream as of Dec. 1, 1993, the date when landfills there quit accepting yard waste. Several other states are following similar timetables.

Not coincidentally, Ohio is one of a handful of states that have—or will soon have—regulations for locating and operating commercial compost sites. Ohio's rules are nearly complete.

For example, these regulations will stipu-

late that compost facilities be located on compacted clay sites, and that they be operated correctly to discourage leaching and odors. Contained in over 40 pages of verbiage, the Ohio rules at least tacitly acknowledge that composting is now more—much more—than a backyard activity.

Janesz, who carries the unwieldy title of organic recycling development manager for Kurtz Brothers, offers these observations about composting:

- Although many small and community compost facilities will be started, eventually they'll give way to larger, more efficient compost operations.

- Suppliers, some coming from Europe where large-scale composting is commonplace, will begin providing some of the specialized machinery needed for cost-effective and quality-conscious operations.

- There will be a slowly growing market for compost, but only if it's of consistent and



Ed Janesz says yard waste can become valuable compost.

high quality.

Customer education is what Janesz sees as one of the biggest challenges facing the marketing of compost. And marketing will become increasingly important as the volume of compost increases after landfills are closed to yard wastes by 1994.

"If you do a good job of educating your customers about compost, they're going to buy it again and again and again," promises Janesz.

What industry, public perceive to be organic is not the same

■ Are we all talking the same language concerning today's fertilizer products, specifically the organic products?

Chuck Darrah from CLC Labs, an independent soil testing laboratory in Ohio, thinks not.

"There's no doubt about it," says Darrah, "it's confusing."

The confusion starts with the definitions of these products. Regulators, usually with backgrounds in chemistry, supply the official definitions (each state is free to adopt its own) while end users typically describe fertilizer products from an agro-

nomous viewpoint.

For example, the commonly-used nitrogen source urea would be classified as a "synthetic organic" fertilizer, according to the recognized definition of "synthetic organic."

"I don't think that many of your lawn care customers would accept urea as an organic fertilizer," says Darrah. "The public, I think, perceives organic as being natural. The public perceives organic as what, technically, is defined as natural organic."

These distinctions are important, says Darrah, because fertilizer suppliers are



Chuck Darrah: does public know what organic is?

beginning to mix manmade (synthetic) and animal and/or plant wastes or by-products (natural) into hybrid fertilizer products.

He says most lawn care operators don't use all natural products because the nitrogen levels are low, typically around four percent. That would mean hauling and

applying 10 times more product than they'd need compared to using urea...or five times more product if their normal fertilizer is 20 percent nitrogen.

"Those of us who have worked with these products recognize that we can overcome some of these disadvantages by putting synthetic organics back in with

the natural organic fertilizer," says Darrah.

And what's wrong with synthetic fertilizers?, someone at the Ohio Turfgrass Conference asked Darrah after his talk about fertilizers.

Nothing, says Darrah. It's just that some of the public perceives natural fertilizers are safer or better.

Pre-payments give cash jump-start on your next application season

Money is the name of the game. Some of this executive's ideas might help you get and keep more of it.

■ Many lawn care business people offer pre-payment incentives to their customers, but is it a good idea?

Generally, yes, says Edward Coia, vice president of Lawnmark, Hudson, Ohio.

Offering incentives to get customers to pay for their programs before service begins—sometimes months before it begins:

- **helps** companies through cash-lean winter months;

- **reduces** the amount of money a company has to borrow over the winter; and

- **allows** a company to keep valuable service personnel rather than lay them off in November.

"The name of the game today is cash," says Coia, a speaker at the recent Professional Lawn Care Association of America Conference. "You've got to have cash."

Coia's company, Lawnmark (\$12 million in sales in 1991, 10 branches) gives its customers three opportunities to pre-pay.

Coia says Lawnmark receives about 35 percent of its sales in pre-payments.

"You can have all the sales in the world, but it's not a sale until you put that stamp pad on the back of that check and it's in your checking account," says Coia.

If Lawnmark customers pay before Dec. 31, 1991 they receive a six percent discount plus another \$5 off. If they pay by March 1st six percent off, and if they pay within 10 days of their first application, a five percent discount. (Actually, these discounts may vary year to year as interest rates vary. When interest rates are high, some companies seek pre-payments more aggressively. Interest rates are extremely low now.)

But, getting money upfront has perils of its own, Coia believes. If a company spends pre-payment money unwisely or too soon, it may find itself strapped for cash during May and June when lawn application costs are highest.

That's one reason Coia views pre payments, at least in a recordkeeping sense, as a liability.

"We owe that money to the customer because we haven't done any work for them yet," he says. "We don't book it as a sale. As we make each application we'll write a portion off to reduce that liability. We treat that like it's borrowed money, because that's what it is."



Edward Coia:
Go for the jugular.

Some other observations by Coia during his presentation at

the PLCAA Conference:

- Allowing customers to pay for lawn care with credit cards is a good idea for many lawn care companies. Sure, there's a charge (rates vary, so it's a good idea to shop) but payment by a card eliminates some of the frustration of collection. "Few people realize the cost there is in collecting an invoice," says Coia.

- Find several good suppliers and stick with them. Then you can usually arrange more favorable financing terms. "Get as much extended term from your suppliers as possible. Use their money," says Coia.

- Buy only as much material as you're going to use each application season. Let's assume you made \$50,000 profit for the season, but you were left with \$30,000 worth of materials. In essence, that means you only have \$20,000 cash available. And you're paying storage costs for the excess inventory too.

- If you're in a cold-weather market and your company's idle for the winter, why insure your service vehicles? Check with your insurance agent about taking coverage off the vehicles in the winter. Make sure you have the vehicle keys though.

'92 PLCAA officers

■ The 1992 officers of the Professional Lawn Care Association of America: President Robert E. Andrews, The Greenskeeper, Carmel, Ind.; President-Elect Edward J. Coia, Lawnmark, Hudson, Ohio; Vice President John Robinson,

Green Drop Lawns, Ltd., Calgary, Canada; and Secretary/Treasurer Patrick J. Norton, Barefoot Grass Lawn Service, Worthington, Ohio.

New PLCAA directors, three-year terms: Thomas F. Murrill, ChemLawn

Services Corporation, Columbus; Norman Goldenberg, ServiceMaster Consumer Services, Miami; and Louis J. Wierichs, Jr., ServiceMaster Lawn Care/Fox Cities, Appleton, Wisc. Associate Director Peter Machin, The Andersons, Maumee, Ohio, will serve a two-year term as a PLCAA director.

You don't need a written contract, but you do need to keep clients informed

■ Before they begin service, some lawn care providers require the homeowner to sign a contract. Many do not. The customer's word is good enough.

This is not expected to change significantly anytime soon, lawn care providers tell LANDSCAPE MANAGEMENT. There is no rush by LCOs to get clients to sign written contracts, although some LCOs have made it a part of their standard business practice.

Many LCOs, however, operate under the so-called negative option principal—lawn service continues indefinitely until someone calls a halt to it.

The practice is well established and accepted by consumers in most markets. Typically, lawn care companies, through their pre-season promotional and sales activities, let customers know that service is continuing. Homeowners shouldn't be (and rarely are) surprised when the lawn care vehicle shows up for the first application early in the spring.

Richard L. Lehr, legal advisor for the Professional Lawn Care Association of America, says even though there may not

be a written contract between an LCO and a homeowner, there can be, and often is, an oral contract.

An oral contract is fine, says Lehr, as long as both the LCO and the client have a mutual understanding of what services are to be provided, when they're to be provided, etc.

"One of the best things any lawn care operator can have going for him is a well informed consumer," says Lehr. "It's the uninformed consumer who hears something or reads a snippet in *USA Today* and thinks he's armed with the knowledge to take you on."

There are advantages to having a written contract, however, says Lehr, including a record of the responsibilities and obligations of both the lawn care company and the customer.

"I don't want a company to be in a situation where a customer says, 'wait a minute, your salesman said this,' or, 'your technician said that.' A contract establishes certainty," says Lehr.

Here are some suggestions about customer contracts Lehr offered during a pre-

sentation at the PLCAA Conference this past fall:

- Is your contract is consistent with your policies? If your contract makes guarantees (100 percent satisfaction etc.), be prepared to act them out.

- If you include disclaimers in your contract, make sure they're in easy-to-understand language, they're noticeable, and they limit your exposure to repairing or replacing anything you've damaged as the result of your service.

- Make sure that anyone in your company that talks to customers knows the difference between making statements that can be considered a warranty/guarantee, and those that are salesmanship/puffery.

- Consider having language in your contract that allows the introduction of a third party to arbitrate disputes concerning quality of service or damages arising from service.

- Make sure technicians complete their paperwork for each service stop.

- Consider incorporating a clause in your contract making the customer responsible for all attorneys' fees and court costs in actions arising from their breach of contract.

"Even if you don't go to a contract, make sure the customer understands the type of lawn care service that you provide and what it means," adds Lehr.

Do you offer coupons? Read this

■ Some lawn and landscape business owners use coupons to boost service and product offerings, particularly during the spring selling season.

Their coupons are among the 2.63 billion issued by businesses each year. Consumers redeemed \$4.5 billion worth of them in 1989. Return rates are highest for direct mail coupons and lowest for those that appear in newspapers, says Kermit Meyers, director of Summary Scan, a division of the Advertising Checking Bureau.

Rate of return depends not only on the medium used, but also such elements as design and size.

Here are four rules to keep in mind:

1.) Make your special offer the

largest part of the design. There are three elements to a coupon design: the special offer; the business name, address and phone number; and the type of business. Readers spend less than two seconds scanning a coupon, so the offer has to stand out.

2.) Don't skimp on the offer. The most effective coupon offers include messages like "two-for-one," sizeable discounts, money off, and free.

3.) Don't crowd the message. The reader will notice the uncrowded coupon with the clean message. Remember, you just have to include the offer; the name, address and phone number of the business; and the service or product you offer. That's all.

4.) Devise a way to track redeemed coupons. This allows the advertiser to gauge cost effectiveness and also highlights the localities (if you printed coupons for different areas on different colored paper, for instance) which should be targeted for future marketing efforts.

'92 GIE in Indianapolis

■ Indianapolis is the location for the 1992 Green Industry Expo. The dates are Nov. 17-19 at the Indiana Convention Center.

This past November, 290 companies exhibited at the GIE in Tampa. Says Ann E. McClure, GIE show manager, "Our booth sales were up from 1991 and the show floor traffic was heavy over both days of the Expo."

In a related matter, the Professional Lawn Care Association of America (PLCAA) reported that nearly 1,000 people attended its educational conference held in conjunction with the GIE.