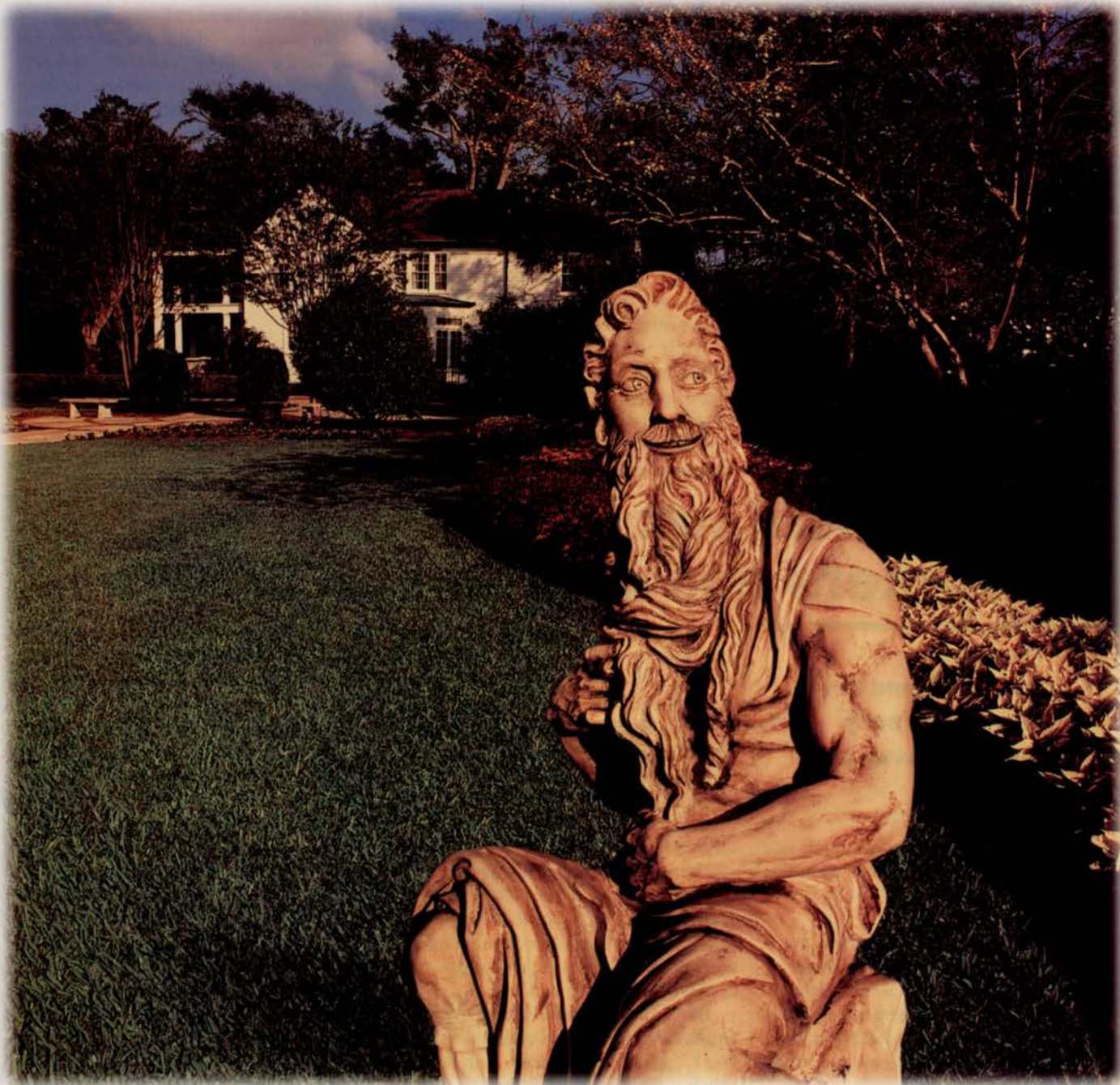


PREVENT CRABGRASS WITH TEAM  
AND EVEN YOUR HARDEST CUSTOMER  
WILL CRACK A SMILE.



Dependability is what lawn care and landscape professionals look for in a preemergence herbicide. And dependability is what you get with the time proven Team\* herbicide. Since 1985, Team has proven itself effective at stopping a broad spectrum of troublesome grassy weeds, especially crabgrass.

With the rock solid performance of Team, you can expect consistent, season long control.

Because nothing, pound for pound, prevents crabgrass better than Team, you know you've got a preemergent you can depend on to bring a smile to the face of any customer.

For further information on Team, or any other product in the extensive line of DowElanco products, give us a call at 1-800-352-6776. Always read and follow label directions.

 DowElanco

\*Trademark of DowElanco





## DISASTER from page 20

**How to price**—During crisis time, management may want to charge a premium price for repair services. Long-term relationships are seldom developed when a company follows this practice.

Yes, short-term gains may be realized; however, in the long-term, customers will realize they are being charged more than a reasonable amount for the service they receive.

When you determine a price to repair damage caused by a natural disaster, it is critical that the total costs for personnel and equipment are taken into consideration.

Overtime and salary personnel may work extra hours and, therefore, may need to be considered for overtime or additional benefits. By reviewing your current costs for hourly rates and equipment utilization, a company can determine if any adjustment in its pricing is needed.

**Is travel required?**—Choosing between

traveling to a distant market or staying at home is a function of the number of skilled people you have on staff, the level of service committed to current customers, and the size of the opportunity at the distant location. Managing or performing work far from home base requires that you know the local laws, insurance regulations and lodgings available.

Many green industry companies look at disaster work as an opportunity to keep the employees working. However, a company needs to consider the liability it may be exposing the company to. Employees working in unfamiliar areas may encounter local resistance to their presence, a lack of things to do after hours, or fatigue from long work periods.

While working in New York to clear streets from a major ice storm last year, many companies coming into the state were surprised by the increase in auto insurance rates, workers compensation

premiums and the amount of the tax obligation levied as a result of working there. Profit was reduced significantly due to these unbudgeted expenses. A profit of 15 percent was reduced to 5 percent.

**Be prepared**—Timing is important if you want to profit in natural disaster work. A company needs to be prepared to react to opportunities when they arise. Be organized and disciplined, and have work teams at the ready to respond quickly. Too often, companies take on tasks that are too complex or difficult to perform. Other companies find management of the work crew to be excellent when working out of the office each day. However, when they go on the road, it becomes a total nightmare.

—The authors are principals in Wandtke & Associates, a business management consultant to the green industry located in Columbus, Ohio. To contact them, phone (614) 891-3111.

# Communicating: with employees, co-workers and customers/clients

## Learn from your conversations, and don't be afraid to use body language to convey your points.

■ Communicating is a contact sport, said Mike Jousan of Clear Communication Co., Scottsdale, Ariz. That is—"you've got to connect."

"Whatever your goals are in life, you'll reach them faster if you can communicate better," Jousan told New Jersey Turfgrass Expo attendees. But his presentation only scratched the surface of the self-help information available to landscapers and superintendents.

Of prime importance: "You are not only carrying a message, you are part of the message, and you can never separate yourself from the message," Jousan said.

He has what he calls the "1-10-100" rule: the same skills you use to talk to an employee, your dentist or spouse, you use to talk to groups of 10 or 100.

And he believes that good communication is an "equal opportunity" skill because anyone can do it.

Four simple things which Jousan suggests for any situation in which you must connect with another person or persons:

- Your voice has to be energetic.
- You must use eye contact: when all else fails, look at people.
- Use gestures: your hands enhance what you're saying.
- Your body language must be going forward in a positive fashion.

"Words, tone and body are the only things we use to communicate," Jousan says. "Words are 7 percent of the process, tone 38 percent, and body language 55 percent. So you must support your words, or they won't mean much."

Dr. Tony Alessandra and Dr. Phil Hunsaker, writing in "Communicating at Work," agree with Jousan. One of their beliefs is that perceived sincerity is directly proportional to eye contact.

Alessandra and Hunsaker say that, when conversing with others, you should use body language to convey openness, confidence and enthusiasm.

For instance, you convey openness with open hands and uncrossed arms. To be totally effective, you should not establish spatial barriers between yourself and others: move closer to them, lean forward if you're sitting.

They believe that the area within two feet

of you is the "intimate zone." From 2 to 4 feet extends the "personal zone;" from 4 to 12 feet, the "social zone;" and beyond 12 feet from you is the "public zone." Don't try to talk to someone 10 feet away in a personal manner, they suggest; you should be no farther than 4 feet from the person you're talking to.

You can convey confidence and authority by using relaxed and expansive gestures. You can convey enthusiasm with an inward smile, an erect body stance, alert eyes and a lively, well-modulated voice.

*continued on page 24*

**Jousan: You've got to connect with your audience whether it's 1, 10 or 100 persons.**







## NOW THERE'S NO PLACE FOR PESTS TO HIDE.

There's a good reason why AVID® has become the most widely used miticide/insecticide for greenhouse ornamentals—reliable mite and leafminer control.

But did you know that you could take advantage of the same consistent control for your outdoor plant material? And in addition to reliability, AVID offers you several other benefits as well.

### **CONTROLS BOTH MITES AND LEAFMINERS**

AVID provides powerful mite control on fresh flowers, bedding plants, shade trees, foliage plants, potted flowering plants, flowering trees and other woody ornamentals.

Its unique translaminar activity allows abamectin, the active ingredient in AVID, to penetrate plant tissues and form a reservoir of active ingredient to control mites and leafminers as they feed on the leaf.

### **EXTENDED RESIDUAL CONTROL**

AVID provides extended residual control which can mean fewer applications and lower costs.

### **NO UNSIGHTLY RESIDUES**

AVID is a liquid that leaves no powdery deposits or residues to detract from the beauty of your plants.

### **UNIQUE MODE OF ACTION**

AVID is unrelated to other miticides or insecticides so it can control mites and leafminers that have developed resistance to other products.

So, when it comes to unsurpassed pest control for nursery, landscape and greenhouse growers . . . the choice is clear. AVID leaves target pests with no place to hide.



## **BEAUTIFUL RESULTS FROM EVERY BOTTLE**





## COMMUNICATE from page 22

Your voice, in fact, is another key. It should be assured; use a strong, full (but not overwhelming) resonance. Speak clearly and distinctly. Show enthusiasm through pitch, volume and inflection. Vary your vocal qualities, but always speak naturally and at ease.

"Communicating is about openness," Jousan adds. Here are the keys:

- **Care** about what you're talking about.

- **Connect**—use your physical self and tell stories or solve problems.

- **Commit**—you learn to speak by making a commitment.

If you've ever taken a Dale Carnegie course—and they are recommended, especially for people in managerial positions—

you know the group's three steps to effective communication:

- 1) Make communication a top priority in every interpersonal situation.

- 2) Be open to other people. Share and listen.

- 3) Create a receptive environment for communication by laying a foundation of genuine trust and shared interest. Be sincere.

The Carnegie people, in one of their books, offer these tactics:

- Try to see things from the other person's perspective. If you're talking to an employee who has made a mistake, find out why the mistake was made so you can offer advice.

- Don't listen to hear. Listen to learn.

In order to find out why the mistake was made, you must pay careful attention to that same employee.

- Apply the Golden Rule and respect the dignity of others. For instance, criticizing that employee in front of his peers is taboo. Always take him or her aside.

- Be quick to admit mistakes and slow to criticize. And when you criticize, above all, be constructive so that the employee will follow instructions and do it right next time.

Additional information on this subject is available through a wide variety of books you can find at your local public library. Look in the section with the Dewey Decimal code number 658.84.

—Jerry Roche

# Compost preferred over topsoil as soil amendment

**As compost becomes more available to landscapers, more and more topsoil is being replaced with compost for a variety of project uses.**

■ Whether for general grading purposes, lawn establishment or renovation, or tree and shrub planting, landscapers purchase and handle a tremendous amount of soil products.

One of those products—topsoil—has never been available in good quantity. Wide differences in availability exist among different areas of the country. Even

within small geographic areas, price and supply can vary considerably, especially given the high cost of trucking topsoil, even over short distances.

Many contractors have difficulty with topsoil availability in metropolitan areas. In fact, some city and county governments have banned the shipment of topsoil across city or county lines to limit the stripping of topsoil before construction or new development.

Compost, on the other hand, is becoming increasingly available. More and more cities and towns, private composters and landscape contractors are composting,



The quality of materials used determines the quality of the compost you produce.



leading to a greater supply at reasonable prices. The greater availability is being driven by landfill bans on the disposal of yard waste, leaves and grass and a dramatic rise in tipping fees for disposal a landfills or incinerators.

Today, compost can be purchased from any private composters, municipalities or bulk and re-wholesale yards serving landscape contractors.

**Superior quality**—Even the best topsoil available often contains rocks and sticks, and weed seed is invariably a problem when topsoil is used for new lawn establishment. Properly managed compost should avoid each of these problems. Rocks and sticks should be screened out and the vast majority of weed seeds are killed by the high temperatures developed during composting.

Compost consistency also gives the contractor numerous advantages over topsoil. Compost provides for a uniform, fine texture, without clumps, which makes for easy handling. Topsoil can vary widely in

requirements at the time of establishment. This is true for both the primary as well as the secondary and trace elements.

Composts themselves do vary in nutrient content. Compost derived from animal manures or sewage sludge has higher nutrient levels than compost derived from yard waste. When using yard waste compost as a soil amendment, reduce normal fertilization rates at the time of establishment by up to 20 percent. If using animal manure or sewage sludge compost, reduce rates by up to 40 percent.

Compost will typically contain 20-30 percent organic matter, while most topsoils contain less than three percent. The organic matter imparts several benefits to the subsoil when compost is used as a soil amendment. Both clay and sandy soils are improved by the incorporation of compost. Other improvements include: aeration, improved soil structure and higher water and nutrient holding capacity. Irrigation and fertilization requirements will be lower where compost is used.

The organic matter in compost also delivers another major benefit with its associated high level of microorganism activity. Microorganism activity has long been known to be a major factor in reducing thatch development in lawns. In addition, recent research has

shown high levels of microorganism activity can be responsible for reducing soil borne pathogens such as *pythium* and *rhizoctonia*, and help to release micronutrients and make them available for plants to use.

Most composts have a pH that is neutral to slightly alkaline, generally from 6.5 to 8.0, so lower limestone is required to correct acidity.

**Aesthetic benefit**—Compost is dark and rich looking, and customer satisfaction with it is high. Based upon looks alone, most people will choose compost over topsoil every time.

Other compost quality issues. Users of compost need to be aware of a few additional unique characteristics before using compost. For instance, users should ensure compost is mature and fully stable.

## Bottom line rewards

### ■ Composting saves money.

Jerry Lee, technical services manager of Wight Nurseries, knows that composting offers bottom line rewards as well as ecological benefits.

The company composts scrap plant material, soil and all.

"We just knock off our pots, which leaves the soil on the plants," he says.

Wight Nurseries stores excess materials on a concrete slab until enough accumulates to warrant starting the grinding cycle. Material is loaded into an eight-foot tub grinder, then stacked into five-foot high windrows after it comes off the conveyor belt.

The total composting cycle takes about 12 weeks. The compost must reach a 130-150 degree temperature to compost successfully. The compost is then tested for nematode and water molds. If the tests are negative, they use it. If the tests show traces of nematodes or water molds, blending continues.

"Our original investment was about \$30,000 in equipment and operating costs," says Lee. "In the first year alone, we recouped that expense."

The benefits: no landfill visits to discard sand and scrap, which saves on tipping fees. "It's only about \$8 per ton in our area, but potting soil is pretty solid stuff, so it doesn't take long for those \$8 fees to add up," says Lee.

The company also saves on sand supplies. "Our old potting soil mix was 80 percent bark and 20 percent sand," says Lee. "Now, we blend in material that passes the test, instead of the sand." Particle size is about the same as sand.

But here's a warning: be sure you know and follow local regulations.

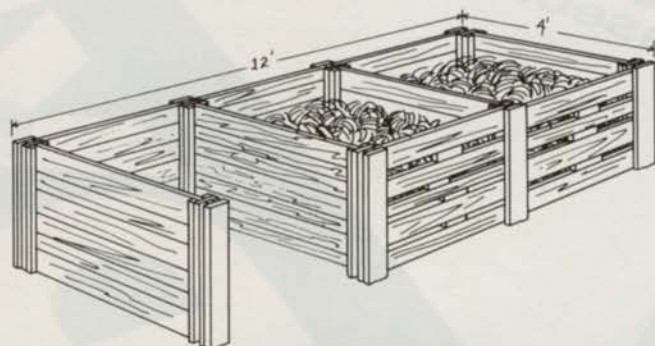
—ALCA Landscape Contractor News

If not, plant growth problems may result if sufficient fertilizer is not added at the time of establishment.

Reputable suppliers carry mature and stable compost.

The source of compost is another concern. Yard waste and animal manure compost can generally be considered to be of high quality. Compost made from sewage

*continued on page 28*



**A compost bin doesn't require a complex design. Just make it easy to work with.**

consistency.

**Save on labor costs**—Compost weighs much less than topsoil. Compost weighs about 1200-1300 pounds/cu.yd. A cubic yard of topsoil weighs between 1900-2000 pounds. This means that the compost can be shipped for less cost than topsoil, and more product can be delivered with each truck load. Once on the job site, reduced labor is required to handle, shovel and rake compost. Equipment wear is also reduced.

Agronomically, compost offers many advantages over topsoil:

- nutrient value;
- high amount of organic matter;
- nutrient and water holding capacity;
- neutral reaction.

Compost will contain more nutrients than topsoil, thus reducing fertilizer



# WE DON'T JUST DELIVER GRUB CONTROL. WE OVERNIGHT IT.



You know how much damage grubs can do once they begin feeding. So don't settle for an insecticide that stops grubs eventually. DYLOX® Insecticide delivers grub control posthaste. In other words, it's the fastest grub control available.

After grubs hatch and begin to feed, apply DYLOX. Within 24 to 48 hours, the grubs are dead. And since DYLOX has a very short soil residual, it's an insecticide you can feel good about using.

What's more, unlike other subsurface insecticides, DYLOX has no label restrictions on land-



Treats 10,000 sq. ft. for  
White Grubs and  
Mole Crickets

Treats 15,000 sq. ft. for  
Sod Webworms

For Control of  
White Grubs,  
Mole Crickets,  
Sod Webworms,  
and Cutworms.

**MILES**

scape and recreational turfgrass varieties or sites. In fact, with the 80% water soluble powder formulation, you can even spray flowers, shrubs and trees and get first-class control of ornamental insect pests.

DYLOX is a low-odor compound and is also available in a 6.2% granular formulation. To find out more, contact Miles Inc., Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.

And get fast grub control signed, sealed and delivered.

**MILES**







## Compost efficacy

Research by Peter Landschoot and Andy McNitt at the Penn State University Turfgrass Research Center during a 1992-1993 research project, studied the efficacy of seven compost amendments on clay loam subsoils. They were most interested in how different compost mixes effected turfgrass rate of establishment; overall turf quality; organic matter content; bulk density and infiltration.

"Our goal," says Landschoot, "was to simulate a situation in which a contractor removes good topsoil from a new development and hauls it away from the site—a common practice that leaves a subsoil high in clay, low in organic matter and nutrients and unsuitable for good turf growth."

Eight different composts, a reed sedge peat and a topsoil were applied at two rates: 6.2 cu. yds. per 1000 sq. ft. and 3.1 cu. yds. per 1000 sq. ft., at depths of four to six inches. The compost mixes tested were:

- yard trimmings;
- a biosolid compost from the water department;
- brewery waste;
- mushroom media;
- paper pulp;

### Landschoot: to examine compost efficacy as top-dressing.



- a mixture of various manures;
- a topsoil-amended plot.

The plots were seeded with Kentucky bluegrass. Among the findings:

- all compost treatments increased soil organic matter content, reduced bulk density and increased water infiltration rates when compared with the topsoil treatments and the unamended control plot;
- good turf quality was correlated with increasing levels of available phosphorus and nitrogen recovery;
- starter fertilizer increased the rate

### COMPOST from page 25

sludge or municipal solid waste (MSW) may contain contaminants. If you use these composts, know the producer, check with others who have used the product and ensure that the compost meets all local, state and federal regulations.

Producers should be able to produce test results for heavy metal and pathogen contamination in sewage sludge or MSW compost.

—Dr. James Wilkinson, vice president of research and development for Earthgro, Inc., in the *Bulletin of the New York State Turfgrass Association*.

of turf establishment with all treatments except the biosolid compost and the brewery residues.

Landschoot says the quality of the material used is a big issue, as well as the length of time it takes before the organic portions of composts break down, how long soil improvements last and the effects of compost additions under heavy-traffic conditions. He plans to examine those issues in the near future, as well as a look at the efficacy of various compost mixtures when used as a topdressing.

## Sprayer tune-up time

A pre-season check is a good time to spot needed repairs.

Although sprayer brands and types differ slightly, they operate on the same principles. Industry and university experts recommend using the following checklist to tune-up all sprayers:

**Check for wear and tear**—Look for obvious damage to frame, running gear and tank.

- ✓ Drain antifreeze or water and check the pump for cracks or leaks.
- ✓ Test throttling valves, pressure gauges, hoses and clamps for leaks.
- ✓ Check nozzle gaskets for a tight fit.
- ✓ Clean line and tip strainers with fresh water and a soft brush.

**Check for uniformity**—Calibrate. Make sure nozzle size flow rate, and spray pattern are uniform across the boom.

✓ Measure flow rates from each nozzle and replace any tip which varies 10 percent or more from manufacturer's speci-

fications. If two or more nozzles are off by 10 percent, replace the entire set of tips.

✓ Identify nozzle needs for the upcoming season. New chemicals or application procedures may require different nozzle types, sizes or pressure ranges.

✓ Replace worn nozzles before the season and keep extra nozzles on hand to avoid unnecessary delays during the season.

**Check for safety**—Equip your sprayer to carry fresh water for rinsing gloves and tools, and for cleaning spray tips and screens.

✓ Use appropriate safety equipment. Basic protective gear includes a long-sleeved shirt, long pants, sturdy shoes or boots, chemical-resistant apron, gloves and goggles or a face shield. Read label instructions to identify further safety precautions.

✓ Be certain pumping and filling equipment has devices to prevent backflow and check valves to protect water supplies.

**Do's and don'ts**—Do check the chem-

ical label to determine recommended application rate.

**Don't** think of calibration as a once-a-year task.

**Don't** try to calibrate your nozzles by blindly raising or lowering pressure to change flow rate. There isn't a linear relationship between the two variables. For example, a nozzle spraying at 10 psi will deliver only twice the amount of liquid when the pressure is increased four times to 40 psi.

**Do** adjust for variances in nozzle flow rate when spraying solutions with substantially different densities than water. Some solutions, such as 28 percent nitrogen, are heavier than water and would flow at a lower rate through the same nozzle.

When checking ground speed for calibration purposes, use a stopwatch to measure the time it takes the tractor to go 250 feet, then calculate speed with this formula:

$$\frac{\text{Distance (ft.)} \times 60}{\text{Time (sec.)} \times 88}$$

Calibrate each nozzle individually, and check for worn or split hoses or leaky valves. **LM**





**27**  
**NEW**  
**PRODUCTS**

# New ZT Zero Turn Mower The Only One That's Bush Hog® Tough

The new Bush Hog® ZT 1800 and ZT 2200 are the only zero turn mowers qualified to wear the Bush Hog® brand. That's because they are the only mowers that meet Bush Hog's farm-tough specifications for performance and durability. And, because they are the only zero turn mowers that deliver all the features you need for commercial mowing.

Features such as:

## **Superior Comfort and Easy Use**

- Easy-on, easy-off design
- Adjustable seat and foot rests for operator comfort
- Low profile for better traction and stability
- 90-degree tilt-up deck for easy service and maintenance


## **Superior Performance**

- 10 to 12 inches shorter than competition for better maneuverability around trees and obstacles
- Minimum 2-7/8 inch distance between tractor and deck for complete cut in tight "Z" maneuvers
- Low center of gravity for stable hillside operation
- Reliable 18 and 22 HP Kohler Command engines
- Choice of 48- and 60-inch wide cutting widths
- Side-to-side and front-to-rear deck flotation

Learn more about the Bush Hog ZT 1800's and ZT 2200's farm-tough features and what they will mean to you in superior comfort, easy use and superior performance. See them at your Bush Hog dealer or send in the coupon for free literature.



# **BUSH HOG®**

DIVISION OF  ALLIED PRODUCTS CORPORATION

**We Put Support Line Equipment First**

Dept. LM-04 • P.O. Box 1039 • Selma, AL 36702-1039 • (334) 872-6261

SEND TO: BUSH HOG ■ DEPT. LM-04  
P.O. BOX 1039, SELMA, AL 36702-1039  
OR CALL (334) 872-6261

Name: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Please have my Bush Hog dealer contact me immediately.



## Insect control in cool-season turf

### Understand regional differences and critical periods of pest infestation.

by Whitney Cranshaw, Ph.D.,  
Colorado State University

■ Before turfgrass managers can attain optimal control of insects in turfgrass, they must first understand the habits and injury signs of the target pests. This understanding helps to recognize impending problems, pinpoint critical periods during the season for control and develop the best management techniques.

**Regional differences**—Although pest complexes in cool-season turfgrass are generally shared, there are important regional differences. For example, problems with Japanese beetle, bluegrass billbug and chinch bugs are generally restricted to areas east of the Mississippi river. Problems in Western states include spider mites (e.g. banks grass mite) and Denver billbug. New species continue to be introduced and spread in North America, such as the Asiatic garden beetle, presently a problem in the Northeast.

**Know critical periods**—Most turfgrass pests are best managed during certain times of the season. Most white grubs are far more susceptible when they are young and feeding near the surface, so controls are best applied shortly after eggs have hatched. Other insects, such as bluegrass billbug and black turfgrass atenioid, are better controlled in the adult stage, so treatments should coincide with peak periods of adult activity.

Sampling is very important for identifying problems with most turfgrass pests.

For example, numbers of chinch bugs present in a lawn can be determined by sinking an open-ended coffee can in the lawn and filling it with water. The chinch bugs float to the top and populations exceeding 15-20 bugs per square foot indicate a potential problem.

Sod webworms and cutworms can be irritated to come to the surface by drench-

ing an area of the lawn with "disclosing" solutions of dilute detergent or the insecticide pyrethrins. Populations of sod webworms exceeding 6-10 per square foot or cutworm numbers less than half of that suggest treatment may be desirable.

Sampling also identifies "hot spots" in lawns. Most turfgrass insects and mites are not uniformly distributed, and occur in concentrated pockets. Outbreaks of greenbug aphids can usually be found developing under trees, while spider mites, such as clover mites and banks grass mite—tend to occur in warm, dry areas such as next to buildings or on slopes that face south. Distribution of white grubs in a lawn is often determined by soil moisture conditions.

**Control options**—There are several control options for any pest problem. Using as many of these that are appropriate, in a coordinated manner, is a central idea to Integrated Pest Management (IPM).

Cultural practices limit pest problems. Extra watering can help control outbreaks of chinch bugs by spreading the fungus disease *Beauveria*, which controls them naturally. Watering dry areas also reduces buildup of spider mites in lawns.

A normal lawn contains many natural insect controls. Starlings and blackbirds feed on large numbers of cutworms and sod webworms in spring. Ants feed on many turf insects and a wide variety of other predators—such as big-eyed bugs, ground beetles and parasitic wasps—are present.

If intervention is needed to prevent turf damage, the most obvious management choice is to use insecticides. Many insecticides are labeled for use on turfgrass, each with characteristics that can affect their performance. Some insecticides penetrate thatch well, and are more appropriate for controlling insects below ground, such as white grubs.

Others remain in the thatch layer, where they can best control surface and thatch-infesting species.

**New control products**—Several new insecticides have been registered for turf-



Masked chafers are adults of annual white grubs.

grass insect control. Talstar, Scimitar and Astro are all pyrethroid insecticides, and they are similar to Mavrik and Tempo. They are now registered for control of most surface-feeding insects. In addition, some of these are effective against spider mites. Merit, from a new insecticide class known as chloronicotinyls, appears to have

*continued on page 32*



The cranberry girdler is a type of sod webworm.