



# **LANDSCAPE MANAGEMENT**

*New Products*  
**'95**

# LANDSCAPE MANAGEMENT

## MONSANTO

The proven weed control performance of Roundup® herbicide is now available in convenient, granular formulation in pre-measured packs that offer fast, easy and accurate mixing. Each packet of Roundup® Dry Pak contains enough herbicide for 1 gallon of finished spray solution and is ideal for use in backpack sprayers for applications around trees, along fence lines, around buildings and next to sidewalks. Roundup Dry Pak comes in boxes of 25 packs, making it convenient to store, transport and ration out to workers. For more info call 1-800-332-3111.

Circle No. 140 on Reader Inquiry Card



## AMERICAN CYANAMID

Pendulum® WDG herbicide eliminates labor intensive hand weeding and can be safely applied over-the-top of over 260 labeled ornamentals for up to 8 months of weed control. PENDULUM keeps weeds from emerging and keeps beds beautiful all season long. And now, it's also labeled for turf! PENDULUM can also be tank mixed with Roundup for bare ground applications.

Circle No. 141 on Reader Inquiry Card



## MILES SPECIALTY PRODUCTS

MERIT 75 WSP insecticide is a new broad-spectrum, systemic insecticide that is extremely effective at very low use rates. It offers less risk to applicators, man and the environment. Imidacloprid, the active ingredient in MERIT, delivers superior season-long control of turf and ornamental insects without the need for repeated applications.

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## MILLCREEK

The Millcreek Topdresser / Spreader provides landscapers and grounds managers with a valuable production tool for numerous landscaping functions, including: topdressing athletic fields with sand-peat mixes, application of compost to landscaped areas and fields, building compost piles with grass clippings, leaves and wood chips, dispersal of grass clippings as a disposal alternative, application of de-icing materials on paved areas, spreading baseball infield mix, mulching large area planting beds, large area lime application, general bulk materials hauling and unloading functions and more.

Circle No. 145 on Reader Inquiry Card



## LOFTS

Crenshaw Creeping Bentgrass was formally introduced this year by Loft's Seed. It was developed at Texas A&M University where it was known as SYN 3-88. The research project was supported by the USGA and Bentgrass Research, Inc.

Crenshaw displays excellent heat resistance. It produces a bright green, dense, upright turf with less grain. Limited supplies will be available with the 1994 harvest.

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## KUBOTA

The GF1800 front mower delivers a constant driving force and smooth power transfer to the wheels, even during sharp turns. The GF1800 4WD features an 8.4-mph maximum forward traveling speed and a 4.1-mph maximum reverse speed.

The GF1800 offers a choice of three shaft-driven, off-set mowers: a 48-inch mulching rear-discharge mower, 54-inch side-discharge mower or 60-inch side-discharge mower.

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## WALKER MANUFACTURING

Walker introduces larger area mowing capability with a 62" side discharge deck. This is the largest deck offered for the mid-size Walker Tractor, fitting on either Model D (16.5-HP diesel) or Model T (20-HP gasoline). The deck is specifically designed for mowing rough areas as well as fine turf, using belt driven blades and reinforced deck housing to handle rough conditions. Also new for '94 is a Power Dump Option for the grass catcher.

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# LANDSCAPE MANAGEMENT



## LESCO

Lesco's LCR-7400 commercial rotary mower finds steep hills or wet conditions no problem. The LCR-7400 features automatic or full-time four-wheel drive, powered by a proven and reliable Perkins 27 HP diesel and has two-speed transmission with differential lock. Independent turn-assist brakes allow tight radius turns with minimal turf damage. Its high-lift deck easily clears curbs and simplifies transport. Its 60- or 72-inch deck flips vertically, making it easy to service. Contact your LESCO Sales Rep or call (800) 321-5325 (in Cleveland, 333-9250).  
*Circle No. 147 on Reader Inquiry Card*



## MELROE

The capability of utilizing several different attachments allows Bobcat® skid-steer loaders to handle a wide angle of snow-removal jobs. Choose a bucket for scooping and loading snow, an

angle blade for pushing snow several inches deep, an angle broom for sweeping a few inches of snow or a snowblower for clearing the real deep white stuff.

The loader's pivot turnability and 4-wheel drive traction make the machine great for snow removal. With its narrow width and good operator visibility, the Bobcat loader keeps lawns, shrubs, trees and fences safe from damage often caused by larger machines.

*Circle No. 148 on Reader Inquiry Card*

## THE GRASSHOPPER COMPANY

Grasshopper's new combo mulching deck also collects or side discharges. The new Grasshopper Quick-D-Tatch® Combo mulching Deck™, available for all Grasshopper outfront zero-radius mowers, switches from mulching to side discharge to collection using the Quick-D-Tatch Vac® grasscatching system on the 44", 48" and 61" decks. The 72" deck mulches or side discharges. A new

Quick-D-Tatch feature lets the operator change decks and attachments faster than ever before.  
*Circle No. 149 on Reader Inquiry Card*



## TORO

The Toro Company announced that it has added three-wheel drive to the industry's leading greens mower to create the new Greensmaster 3100-3WD model. The popular, riding greens mower now has broader applications with the ability to reach and mow the most challenging greens terrain improving playability and after-cut appearance throughout the golf course. Features include Toro's Turf Guardian® Leak Detector which prevents major turf damage by detecting small hydraulic oil leaks.

*Circle No. 153 on Reader Inquiry Card*

## JOHN DEERE

The new John Deere 220 Greens Mower features a new operator-presence safety system, smooth, aluminum traction rolls, loop-style handle bars, a more powerful engine, 11-bladed reel, machine-grooved front roller, and easier-to-reach controls. For the name of your nearest

distributor, or free literature, call (800) 537-8233.

*Circle No. 150 on Reader Inquiry Card*



*Circle No. 151 on Reader Inquiry Card*

## EXCEL

Fine grooming of large maintained areas requires the extra wide cut of the Hustler Range Wing™ attachment. With over 12 feet of efficient cutting in a single pass, you can mow as much as 60 acres in an eight-hour workday. You save time, labor, and money when you put a Hustler Range Wing to work!

## SPRAYING SYSTEMS, CO.

Announces a spray tip for custom applicators that combines the precision and uniformity of flat fan nozzles with the clog-resistant, wide-angle pattern of flooding nozzles. The patented Quick Turbo FloodJet® self-aligning spray nozzle, patterned after the popular Turbo FloodJet tip used by farmers, is now available in an array of sizes for custom applicators.

Quick Turbo FloodJet nozzles feature a molded coupling that makes for quick, easy nozzle changes and automatic spray pattern alignment with any quick-connect coupler and are available in standard sizes from 1.5 gal. per minute up to 12.0 gal. per minute.

*Circle No. 152 on Reader Inquiry Card*

## Turbo FloodJet



- Very uniform coverage along boom
- Pre-orifice design produces large droplets to reduce drift
- Nozzle spacing—20 inches
- Spraying pressure—10-40 psi

# LANDSCAPE MANAGEMENT

## SANDOZ AGRO, INC.

Sandoz Agro's Barricade® gives turf managers and landscapers season-long control of the most weeds of any leading pre-emergence herbicide — at rates much lower than other products. Available in water-soluble packets for sprayable applications, and in dry granulated fertilizer formulations, Barricade effectively controls weeds on turf and landscape ornamentals — with no staining concerns.

Circle No. 154 on Reader Inquiry Card



## TERRA®

Terra Thaloniil 90DF, Thaloniil 90DF WSP and Thaloniil 4L are proven, chlorothaloniil fungicides that fight even the toughest turf and ornamental plant diseases. In fact, major university tests prove that Thaloniil meets or beats the competition when comparing Dollar Spot and Brown Patch control. Ask for Thaloniil from your nearest Terra product representative.

Circle No. 155 on Reader Inquiry Card



## CIBA

Primo, a turf management tool from Ciba, reduces turf growth by 50% for up to four weeks. Labeled for warm-and cool-season grasses, Primo saves you time—mowing is faster and / or less frequent. Primo reduces clippings, makes grass denser and a darker color green. For more information, contact your local distributor.

Circle No. 156 on Reader Inquiry Card

## AGREVO

Finale is a broad spectrum nonselective herbicide that provides effective control of broadleaves, grasses, sedges, and woody species. Finale's unique Transmodal Action (TMA) provides both speed of activity and mode of action. Unlike burndown or slow acting herbicides, Finale's TMA provides fast, but long-lasting weed control.

Circle No. 157 on Reader Inquiry Card



## TORO

Whatever the mowing condition, the TORO ProLine Height-of-Cut feature on every ProLine deck adjusts to deliver a greener and healthier-looking lawn. Adjust the height-of-cut on your ProLine deck from two to five inches to get the same great

cut in deep, tall grass on tough terrain as you would expect under normal mowing conditions. Call 1-800-348-2424 for a free ProLine Products Brochure.

Circle No. 158 on Reader Inquiry Card

## DOWELANCO

Announces Dursban Pro insecticide to control chinchbugs, cutworms and a variety of other insects. Dursban Pro, an emulsifiable concentrate, was designed to provide turf and ornamental professionals with the same proven performance they've come to expect from Dursban in a new low-odor formulation.

Dursban Pro will replace other Dursban formulations including Dursban 2E, Dursban 4E and Dursban Turf Insecticide. Compared to previous Dursban formulations, Dursban Pro has: low odor, two pounds of active ingredient Chlorpyrifos per gal., an expanded label, and a "Caution" label. For information call 1-800-352-6776.

Circle No. 159 on Reader Inquiry Card



## THE ANDERSONS

Barricade® Plus fertilizer has "dial In" length of control. The active ingredient BARRICADE, offers turf managers the longest pre-emergence herbicide residual, with up to eight months of control. Based on applied rates, applicators can determine the length of control through a single application (follow Andersons recommendations by region).

Circle No. 160 on Reader Inquiry Card

## Plant growth regulators in turfgrass management



Some PGRs may cause discoloration of turf. The trade-off is in reduced labor costs. Spring fertilization can help improve color, but may also reduce PGR efficacy.

by Wayne Bingham, Ph. D.,  
Virginia Tech

■ The best plant growth regulator will reduce mowing requirements, improve turfgrass density, inhibit seedhead development, improve color and more.

The practical uses of turfgrass require that topgrowth be kept within specific heights, which may vary with the turf's purpose and function. So mowing management must take into account the detrimental effects upon the growth and long range health of the root system, as mowing reduces leaf area and the carbohydrate production necessary for ade-

quate root growth.

A general rule-of-thumb in mowing management is "mow frequently enough so as to remove no more than one-third of the foliage at any one time."

Cool-season turfgrasses have a peak period of shoot growth associated with spring green-up. Applying readily-available nitrogen at this time can stimulate excessive shoot growth.

Fall fertilization tends to improve root growth and does not stimulate this spring flush of leaf growth with excessive carbohydrate use.

However, a slow-release fertilizer may be needed in spring and is more acceptable

than soluble forms. Earlier spring green-up without lush peak growth occurs with fall fertilization.

**Inhibitors and suppressors**—Plant growth regulators (PGRs) are used to reduce excess shoot growth in spring while conserving energy in the crowns and roots of cool-season turfgrasses. After the initial effects, turfgrasses become darker green and generally contain high amounts of protein in the leaves.

Type I PGRs inhibit or suppress turfgrass growth. Inhibiting compounds are foliarly absorbed and require a period for uptake before irrigation or rainfall.

*continued on page 26*

Examples include maleic hydrazide (Slo-Gro) and mefluidide (Embark). These compounds inhibit cell division, meristem development and seedhead elongation.

Suppressor compounds are absorbed through crowns and roots. They work best with some rainfall or irrigation after application. Amidochlor (Limit) is root absorbed and requires rainfall or irrigation to achieve maximum suppression. The crown meristems appear to be the main site of action. Seedhead reduction will occur only if the product is applied before seedhead elongation. Root growth may continue while shoots are suppressed.

Inhibiting compounds reduce shoot growth within one week and are effective for 4 to 10 weeks. The number of mowings required are generally reduced during this time.

PGR injury symptoms may include foliar discoloration, reduced density and initially low quality, which appears to result from inadequate growth to replace senescing plant parts.

Spring fertilization, especially with nitrogen, may enhance the quality of turf

through reduced injury. However, in many instances the PGR effectiveness is also reduced.

Turfgrass thinning caused by PGRs may also be reversed by nitrogen application at the time of treatment. Even though fall fertilization is preferred for cool-season turfgrasses to reduce the peak shoot growth in spring, the effectiveness of PGRs may also be reduced.

**Weed control and PGRs**—Turfgrass density is generally low after inhibitor PGRs have been applied, and turfgrass is prone to weed invasion.

Annual grasses such as crabgrass, foxtail and goosegrass are found to invade and become very competitive in the thin turfgrass. Broadleaf weeds are quick to emerge and/or spread into turfgrasses following inhibitor Type I PGRs. In many cases, management programs include weed control treatments along with the PGRs for maintenance of improved turfgrass quality.

**Growth retardants**—Growth retardants reduce the height of plants by inhibiting biosynthesis of gibberellins which regulate cell enlargement in

plants. Growth retardants reduce the extent of cell elongation, resulting in the control of canopy height. They also inhibit subapical meristems rather than apical meristems as described for Type I PGRs.

Examples of Type II growth retardants currently in use in turfgrass management programs are flurprimidol (Cutless), paclobutrazol (Scotts Fertilizer with TGR) and trinexapac (Primo). These PGRs do not inhibit seedhead development to the extent obtained with Type I PGRs. Flurprimidol and paclobutrazol are absorbed by turfgrasses through roots and crowns while trinexapac is absorbed through the foliage. Biosynthesis of gibberellin is inhibited early in the synthesis cycle by flurprimidol and paclobutrazol and late in the cycle by trinexapac.

Although trinexapac is rapidly absorbed, there are some concerns about rainfall immediately after application.

Although not widely accepted, some research indicates that a small amount of mefluidide may be mixed with growth retardants to obtain improved seedhead control.

Stem height is reduced by Type II PGRs and seedheads of bluegrass and annual bluegrass may remain below the clipping height. In many cases, a trim-type mowing is used a week or so after application to improve quality by removing bluegrass and tall fescue seedheads.

The effects of Type I growth retardants can be reversed by gibberellic acid application. Nitrogen fertilization and gibberellic acid reverse the retardant effects and improve turfgrass quality and appearance. However, mowing is again required.

Increased tillering has generally improved the turfgrass density after using a growth retardant. Weed invasion is not as pronounced following the application of growth retardants. Growth retardants are used in golf course fairways to reduce mowing requirements, annual bluegrass encroachment and spring and summer color.

Basically, PGRs regulate turfgrass growth by inhibiting or suppressing cell division in apical meristems and crowns (Type I) and by interfering with gibberellin biosynthesis (Type II). Inhibitor PGRs reduce growth by interfering with cell division and reduced seedhead emergence.

—Dr. Bingham is a professor of weed science at Virginia Tech, and an extension weed scientist for turfgrass and aquatics.



After spring green-up, three sequential applications of trinexapac at four-week intervals resulted in the dark green Kentucky bluegrass fairway. Light green bluegrass was apparent beyond the treated area.



**IF THIS IS WHAT YOU THINK PRIMO DOES TO YOUR GRASS,**



**IT'S TIME WE SET YOU IN THE RIGHT DIRECTION.**

Lots of people know that Primo® regulates the growth of grass. But not as many understand how.

Primo doesn't stunt turf. Instead, it redirects the grass's growth.

Unlike other growth regulators, which actually stop cell division, grass treated with Primo will still be actively growing, producing the same amount

of new cells. Only now the cells will be smaller. Smaller cells mean a more compact plant.

Nutrients that otherwise would be needed above ground are now channeled into the roots, giving you a thicker stand, and up to 25% more root mass. So the grass can more efficiently take up water and nutrients.

And Primo is foliar-absorbed, so there's less risk of inconsistent uptake.

The result? The easiest-to-manage, best-looking turf you can imagine.

It's easy to see why all roads lead to Primo.



# HOT TOPICS

## Public wants pesticides used responsibly

**WASHINGTON**—There's no question in the minds of consumers about the benefits of specialty pesticides like those used on golf courses and home lawns. But there are concerns about their responsible use, according to results of a survey commissioned by RISE (Responsible Industry for a Sound Environment).

The survey, undertaken by Charlton Research of San Francisco, focused on attitudes of the general public rather than consumers who specifically purchase and use pesticides.

Eight focus groups were held in Pittsburgh, Seattle, Milwaukee and Birmingham. Each group was composed of 9-10 adults of mixed age, gender, area of residence and location.

Focus group information was combined with a national telephone survey of 1,000 adults.

"Our research shows that we need to help the public better understand several issues relative to the value of pesticides, as well as their responsible use," says Alan James, RISE's executive director.

"As the official voice of the pesticide industry, RISE will work with audiences (ranging) from government and industry influentials to the media and consumers, to increase understanding of the value of pesticides as pest management tools which help enhance the quality of life and the environment when used responsibly."

Several of RISE's planned initiatives are educating consumers on responsible pesticide use, promoting the benefits of pesticides, and increasing awareness about the training certified applicators must undergo.

### SURVEY REVELATIONS

- Many Americans are willing to balance their personal and environmental health and safety concerns with the perceived benefits of pesticides.
- Respondents think pesticides are used more by other people in their local government than by themselves or their neighborhood circles.
- Most people use some form of pesticides.
  - 64% use pesticides to control household insects/rodents
  - 48% use pesticides to control garden insects
  - 38% use pesticides on their home lawns
  - 10% currently use a lawn care company
- Controlling termites, insects and bacteria with pesticides is seen as an important personal health and safety protection issue. It is more important than having a beautiful lawn or the public cost of highway maintenance. *If a personal protection issue is at stake, a large majority of people will override their initial concerns about pesticides.*
- People strongly believe pesticides are safe when used as directed. But they are not certain if their neighbors are using pesticides safely. They also believe that professional applicators use stronger pesticides, but are trained to apply them safely.
- Only about 50% believe pesticides made available to the public are thoroughly tested.
- The most trusted source of pesticide information is from independent local government agencies like extension agents, poison control centers and health departments.
- "Maintaining public health" was the reason given by almost 80% of the respondents for applying pesticides to control pests and weeds in public areas.

### ELSEWHERE

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**Scag writes thanks to LM, page 30**

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**Literature and industry events, page 32**



# PAYBACK TIME

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THINK OF IT AS A  
CUSTOMER APPRECIATION  
DAY THAT LASTS  
FIVE MONTHS.

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Be sure to check the January '95 issue.

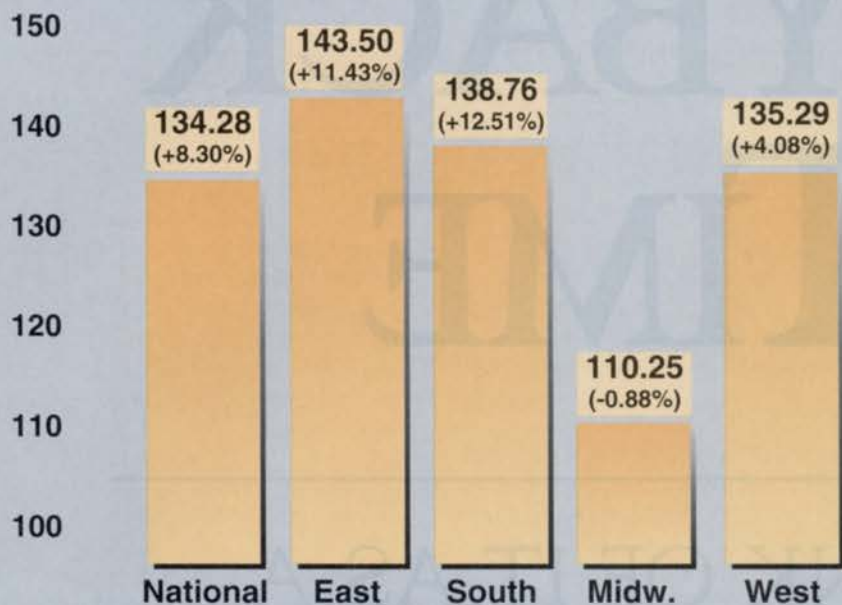


**Agricultural Products Division**  
Specialty Products Department  
Wayne, NJ 07470

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## SERVICE SALES IN THE U.S.

Second quarter, 1994 (First quarter 1992=100.0)



## Small business sales and profits healthy last spring

**ATHENS, Ga.**—Small businesses across the U.S. enjoyed a healthy surge in sales and profits during the second quarter (April-June) of this year, according to the most recent quarterly survey conducted by Padgett Business Services USA here.

Traditionally, second quarter numbers are the strongest for small business, and 1994 was no exception, the report notes. Overall sales were up 13.2 percent and profits showed a healthy 33 percent climb over first quarter numbers.

"Second quarter numbers generally tell us how the rest of the year will go," says Padgett chairman Dan Sautner. "This year looks better than 1993 or 1992 in this respect, but—more importantly—expenses are down and under control."

Small businesses are stretching their profits by keeping expenses down, the survey says. Reduced spending—up only 4.4 percent over last year—indicates that small business owners are watching their bottom line very closely.

The entire study is published as "Small Business—The Engine of Our Economy" by Padgett. Highlights:

- A 4.4% wage increase shows small

business is producing more jobs than other economic sectors.

- Inventories are up 12.7%.
- Nearly half of those polled believe now is not a good time to start a business.
- 72% said they don't think small business should be required to contribute any portion of the health care tab that was proposed during the survey's time frame.
- Not one person believes the Clinton administration has helped the situation for small business.
- The Midwest saw the greatest sales growth in the country, up 8% from the same period last year.
- The East didn't reach expected sales levels, posting the greatest increase in inventory over last year at 17.3%.
- The South showed the highest wage increase in the country at 8.8%, indicating confidence in the economy.
- The West was the only region in the country to experience a decrease in sales over last quarter.

For more information on the report, contact Padgett Business Services USA, 160 Hawthorne Park, Athens, GA 30606; (706) 548-1040.

## HOT STUFF

☞ **DANE SCAG** was happy with LM reader ratings of his mowers (LM, October). In a letter to LM, he wrote:

"I am flattered and pleased to see that my years of personal dedicated efforts in trying to please the commercial landscaper has been recognized and accepted."

"Until a few months ago, I was enjoying my third retirement. I now have a drafting pencil in hand and shortly, with the support of engineers and a major manufacturer, will be producing commercial lawn mowers with innovations exceeding my award-winning zero turn walk-behind.

"This is an exciting and challenging industry. I truly look forward to renewing the relationship with my many friends. And look forward to the opportunity to offer them something new and simply better than available today."

☞ **WINNERS OF CD PLAYERS** at the Green Industry Expo were **Gina Neher**, manager of Lawn Pride, Inc., Indianapolis, and **Bobby Snook**, owner of Snook Lawn & Landscape, Oologah, Okla.

Each of the attendees won a Radio Shack Tandy portable compact disc player from *LANDSCAPE MANAGEMENT* magazine. LM held two drawings—one each day—during the trade show, held in St. Louis, Nov. 13-17. Two hundred show visitors entered the contest.

Neher and Snook both enjoyed the show as well as winning our drawing. "It was the best I attended," said Snook. "And the outdoor equipment demonstrations were great." This was Neher's first GIE show. She told us she found the seminars to be helpful. "Anyone who attended had something to see," said Neher.

☞ **TESTS GIVEN** by the Outdoor Power Equipment Technician Certification Testing program now number more than 2,000, according to **Virgil Russell**, director of certification for the Service Dealers Association.

"The addition of testing on compact diesel engines has created considerable interest in the commercial cutter and golf course industries," says Russell. For more information: OPE Certification, 1946 IH 35, Suite 100-A, Austin, TX 78704; (512) 443-7999 or fax (512) 443-7997.