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MACH 2™
TURF INSECTICIDE
ALL YOU NEED TO PREVENT OR CURE.

Circle No. 141 on Reader Inquiry Card

WEED CONTROL GUIDE

cont. from page 59



Chamberbitter

directly to underside of branch; reproduces by seed

► Occurs in the southeastern United States west to Texas

► Control products the same as matchweed. Treat when plants are small.

Thin or bull paspalum (*Paspalum setaceum*)

► Clump-forming perennial grass; leaf blades flat, hairy to almost smooth with a fringe of stiff hairs along the leaf margins; common in sandy soils; reproduces by seed and clump fragments

► Occurs throughout the coastal plains from Long Island to Florida, west to New Mexico and Colorado, north through Nebraska, Ohio and Tennessee

► Repeat applications of MSMA or DSMA are required every 7 days until complete control is achieved.

Lawn burweed or spurweed (*Soliva pterisperma*)

► Low-growing, freely branched winter annual broadleaf weed; leaves opposite, twice divided into narrow segments or lobes; flowers small and inconspicuous; fruits have sharp spines; reproduces by seed

► Occurs in most southern states from North Carolina to Florida, west to Texas

► Pre-emergence or post-emergence applications of simazine or atrazine provide

excellent control. Prompt and Sencor also work well in tolerant turfgrasses. Repeat applications of two- or three-way broadleaf herbicide mixtures also provide control. Key to control is applications in fall when weeds are small.

Annual or water sedge (*Cyperus compressus*)

► Summer annual sedge; seedhead is a cluster of flat greenish, glossy spikes at the top of bare stems; tolerates close mowing heights; reproduces by seed

► Occurs from Minnesota, Ohio and New York, south through Florida and west to Texas

► Basagran, Image, Manage all provide good control.

Repeat applications of MSMA or DSMA also work.

Annual bluegrass, perennial biotype (*Poa annua* var. *reptans*)

► Similar to annual biotypes except the perennial biotypes produce less seedheads, often produce short stolons and form larger patches compared to annual biotypes; perennial biotypes occur from the transition zone northward where bentgrass is

grown year-round as greens; triazine (atrazine/simazine) tolerant biotype occur

► In bentgrass greens, selective control is very erratic. Growth regulators such as paclobutrazol (Scotts Turf Enhancer) applied twice in fall 30 days apart followed by 2 or 3 applications in spring allows bentgrass to eventually out-compete the Poa. Several years of this program may be necessary and the treated Poa takes on a characteristic yellow-green appearance following application.

Kyllinga (*Kyllinga* spp.)

► Perennials: perennial or green kyllinga (*K. brevifolia*); *K. gracillima* = *K. brevifolioides* (no common name); white kyllinga (*K. nemoralis*)

► Annuals: annual kyllinga, *K. odorata* = *C. sesquiflorus* (acts as an annual in United States but is a short-lived perennial in the tropics); *K. pumila* and *K. squamulata* (no common names)

► Appear similar to nutsedges except kyllinga does not form underground nutlets; perennial kyllinga species form weed patches from stolons.

► Most kyllinga species occur from Delaware and Rhode Island south through the Carolina into Florida, west to Texas, California and in Hawaii. Currently, white kyllinga is thought to be restricted in the United States to Hawaii, however, it probably can survive in portions of the mainland including southern California and south Florida.

► Annual kyllinga species can be controlled with Basagran, Image, Manage or repeat applications of MSMA or DSMA. Perennial species require repeat applications of Image, Image + MSMA or Manage.

Bert McCarty is Associate Professor of Turf at Clemson University, Clemson, SC



Annual sedge



Annual kyllinga

"Success in the professional lawn care industry is based on emphasizing quality service, good programs and products for each and every customer." So says Gary LaScalea, president and owner of GroGreen Lawn, Tree and Shrub Care, which services accounts around the Dallas/Ft. Worth metroplex.

Apparently his philosophy works—GroGreen has expanded an annual 30 to 40 percent since opening its doors just four years ago. Last season, the company generated more than \$1 million in revenue, and it's still growing.

LaScalea, who formerly worked in various positions for ChemLawn, learned early that emphasizing employee relations and on-going training creates pleasant, knowledgeable service personnel. That attribute pays off in high customer satisfaction and cancellation rates of less than 10 percent each season.

Employee perks at GroGreen include above-average salaries, benefits and year-end bonuses. LaScalea also provides employees with comfortable working conditions, such as air-conditioned trucks and properly operating equipment.

The lawn care veteran maintains that keeping his service technicians satisfied increases their enthusiasm in dealing with the occasional customer complaint.

"We expect quality service from our technicians, which includes taking care of any problems in an expedient and professional manner. Our front-line personnel are trained in customer relations as well as product information and application. They are also given the authority to drop everything and make complaint resolution a priority rather than the last task on their list."

LaScalea also believes in supporting his technicians with powerful products and programs including PENDULUM® (pendimethalin) herbicide from American Cyanamid Company. "We can't take the chance of opening ourselves to problems in our preemergent weed control, so we only use proven performers. We rely on PENDULUM as the foundation of our preemergent herbicide program, especially in our residential market which represents 60 percent of our business. I've

Advertorial

depended on this chemistry throughout my career and it has always provided consistent, broad-spectrum control of most annual weeds and grasses. The fact that it can be used across a variety of markets and accounts increases its advantages, LaScalea says.

He points out that although some lawn care professionals turn to cheaper substitutes, the power he receives from PENDULUM makes the program cost-effective. "Look what you get for your money in terms of results and time and costs saved on reduced callbacks. PENDULUM herbicide also goes a long way in keeping customer satisfaction high. I'm sure we'd lose clients without it."

He adds that taking advantage of corporate rebates such as the GREEN CONNECTION PROGRAM™ helps increase the cost-effectiveness of his preemergent herbicide offering. "There are so many different purchase programs out there that you have to watch your options every year," he says. "But, by selecting highly-effective products that also offer cash incentives that meet your needs, you'll get the biggest bang for your buck and keep both your customers, and your bottom line, satisfied."

Get Cash Back with the GREEN CONNECTION PROGRAM

Turf managers know that it's hard to beat the cost-effective weed control of PENDULUM and other pendimethalin herbicides. The number one preemergent product on the market, pendimethalin provides season-long, broad-spectrum control of most annual grasses and broadleaf weeds while exhibiting excellent turf tolerance to warm- and cool-season grasses. Green professionals throughout the country have yet another incentive to use these proven performers—cash rebates from the GREEN CONNECTION™ PROGRAM.

The program covers all pendimethalin products from American Cyanamid, LESCO and The Scotts Company. To qualify, turf managers must simply purchase and take delivery of the product between December 19, 1998 and June 14, 1999 and return their GREEN CONNECTION rebate form with a copy of the invoice postmarked no later than June 14, 1999.

Contact your American Cyanamid distributor for more information. Or contact Cyanamid directly at 1-800-545-9525, ext. T2310, or on the Internet at www.turfacts.com.

Circle No. 112 on Reader Inquiry Card

PENDULUM Helps GroGreen Grow Profits and Customer Base



Top 10 Ornamental Weeds

David Letterman's top 10 list is popular, but this group of pesky landscape weeds has more staying power.

BY JEFFREY F. DERR, Ph.D.

If you focus on the 10 weeds that represent the major weed groups infesting our landscapes, you will have a good base of information on the subject. Each weed life cycle group, with the exception of biennial weeds, is represented by at least one member.

I have listed possible chemical control options for these weeds. While there are nonchemical methods for control, that is a topic for another article. You can integrate chemical and cultural control in an IPM program.

You will deal with more than the 10 weeds listed here, but remember that control strategies for other weeds in that group may be quite similar to those listed. For example, yellow foxtail is in the summer annual grass category, just like large crabgrass. Chemical control options are essentially identical for these two weeds. In other cases, control strategies may be different for closely related weed species. Herbicide recommendations differ for yellow nutsedge compared to purple nutsedge, although both are perennial sedges. Check herbicide labels

and other sources of information for control of weeds not listed in this article.

Summer annuals

Large crabgrass is a troublesome weed in many situations, including landscape beds. It begins to germinate in spring when soil temperatures have risen above 50° to 55°F. It can germinate throughout the spring and summer, making it difficult to achieve season-long control with a single herbicide application. Split applications of pre-emergence herbicides, spaced 2 to 3 months apart, are often used for long-term control.

The best way to control crabgrass is through pre-emergence herbicide application. Products available for pre-emergence crabgrass control include Pendulum, Surflan, Barricade, Treflan/Preen, Ronstar, Devrinol and Dimension. All can be used on woody ornamentals but only certain ones can be used on annual and perennial flowers. Consider using a granular formulation for enhanced crop safety, especially for herbaceous ornamentals. Although certain pre-emergence broadleaf herbicides will suppress crab-

grass, they generally do not provide the level of control seen with the crabgrass preventers.

Crabgrass can be controlled selectively post-emergence using the post-emergence grass herbicides Acclaim, Envoy, Fusilade/Ornamec or Vantage. Since these products have little soil residual, a pre-emergence herbicide should be applied to extend the length of control. Treat prior to tillering of crabgrass for optimum results.

Prostrate spurge (spotted spurge) is a low-growing summer annual broadleaf that germinates during the warm months of late spring and summer. Certain crabgrass preventers such as Pendulum or Surflan are fairly effective on this weed. The combination products on the market, such as Rout, OH2 and Snapshot, provide good control in woody ornamental species. It is difficult obtaining long-term control of spurge since no herbicide provides excellent control of this weed for more than about 2 months. As with crabgrass, split applications can provide longer control. Prostrate spurge is difficult to control post-

emergence. Use careful applications of nonselective herbicides such as Roundup Pro, Finale or Reward.

I generally place *common groundsel* in the summer annual broadleaf category, although it overlaps the



Spotted Spurge

winter annual category as well. It can tolerate mild frost and survive through a mild winter. Most crabgrass preventers provide poor control of this weed and it is, therefore, quite difficult to control in herbaceous plantings.

Products that contain oxyfluorfen, such as the granular materials Rout or Regal O-O, or the liquid formulation Goal, provide excellent control of groundsel. Goal is mainly used on conifers since it will damage foliage of most other ornamental species. The granular formulations are a better choice in landscapes containing a variety of woody species. Other herbicides, such as Gallery, Snapshot, Ronstar and Princep, (if triazine sensitive) will control groundsel. For post-emergence control, use Goal where possible, primarily in dormant conifers

Annuals

▶ Live <1 year

▶ Reproduce by seed

Summer annuals:

Germinate in spring, flowers produce seed in late summer/early fall, die in fall.

Winter annuals:

Germinate fall through late winter, flowers produce seed in spring, die in late spring/early summer.

and dormant deciduous trees. Otherwise use careful applications of a nonselective herbicide.

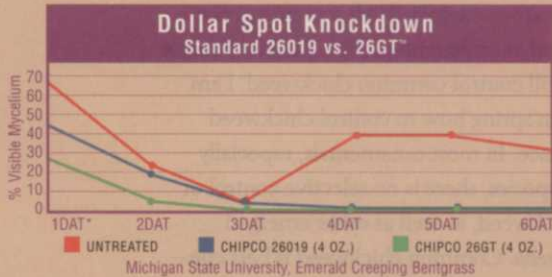
Winter annuals

Annual bluegrass germinates in fall and early spring. The best way to control it is through application of a crabgrass preventer in August, prior to the initiation of germination. Annual bluegrass tolerates most post-emergence grass herbicides. Envoy is the only one in this group that will control annual bluegrass. Alternatively, the nonselectives such as Roundup Pro or Finale provide excellent control. Kerb will control emerged winter annuals like annual bluegrass in certain established woody ornamentals, along with providing residual control. Barrier/Casoron can also be used for pre-emergence and post-emergence control of a range of winter annual weeds (it can only be used on established woody ornamentals). Kerb and Barrier/Casoron work best when applied under cold conditions in late fall or winter.

Common chickweed is a winter annual broadleaf that germinates in fall and early spring. As with annual bluegrass, timing is critical for a pre-emergence application. Late August would be a good time to treat in most areas. Essentially all pre-emergence herbicide used in ornamentals, with Ronstar a major exception, will control common chickweed. I am often asked in spring how to control chickweed post-emergence. In most ornamentals, especially herbaceous species, there is no selective control of emerged chickweed, as well as other emerged broadleaf weeds. Common chickweed is best con-

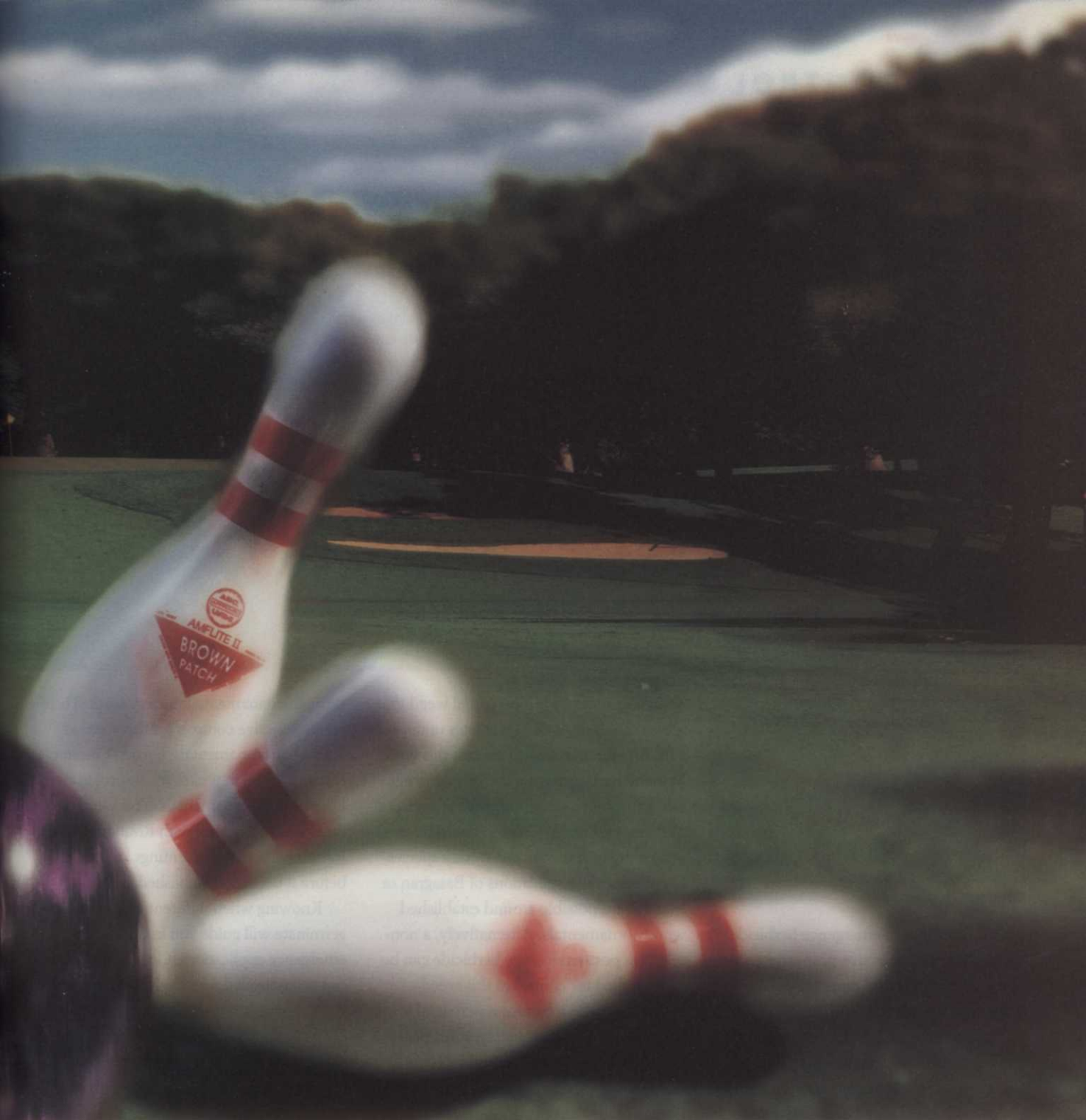
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brown patch. • Best of all, new CHIPCO® 26GT™ gives you the same powerful, broad-spectrum, long-lasting disease control you've come to expect from CHIPCO® 26019. Now you don't have to sacrifice quality and duration for quickness.

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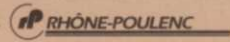


Brown Patch Knockdown
Chipco® 26GT™

	0DAY*	1DAT	2DAT
UNTREATED	PRESENT	PRESENT	PRESENT
CHIPCO® 26GT™	PRESENT	NONE	NONE

*0DAY = Spray applied; DAT = Day(s) After Treatment
Ohio State University, PennCross Bentgrass

chemical, always read and follow instructions on the label. For additional product information, please call 1-800-334-9745. © 1997 Rhône-Poulenc Ag Company.



WEED CONTROL GUIDE

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GENERAL GUIDELINES FOR SELECTIVE PRE-EMERGENCE AND POST-EMERGENCE CONTROL IN HERBACEOUS AND WOODY ORNAMENTALS.

	<i>Herbaceous ornamentals</i>		<i>Woody ornamentals</i>	
	Selective Pre-emergence control	Selective post-emergence control	Selective pre-emergence control	Selective post-emergence control
Large crabgrass	Yes	Yes	Yes	Yes
Prostrate spurge	Yes	No	Yes	No
Common groundsel	Yes	No	Yes	Limited options
Annual bluegrass	Yes	Yes	Yes	Yes
Common chickweed	Yes	No	Yes	Limited options
Bermudagrass	No	Yes	No	Yes
Yellow nutsedge	Yes	No	Yes	Yes
Wild garlic	No	No	No	No
Creeping woodsorrel	Yes (from seed)	No	Yes (from seed)	No
Mugwort	No	No	Yes	No



Common chickweed

trolled through pre-emergence herbicide application. Nonselective post-emergence herbicides will control emerged chickweed.

Perennial weeds

Post-emergence herbicides are generally used to control perennial weeds, with a few exceptions. *Bermudagrass* is an example of a perennial weed that often cannot be controlled using pre-emergence herbicides. Although certain pre-emergence herbicides will suppress pegging down of bermudagrass stolons, post-emergence herbicides are required for control. The best option in broadleaf ornamentals are post-emergence grass herbicides such as Vantage, Fusilade/Ornamec or Envoy. Repeat treatments will be needed for control. Although these are systemic chemicals, one application may will not completely kill the rhizome system of bermudagrass.

Yellow nutsedge is a perennial weed that grows especially well in wet sites under full sun. An effective way to control this weed in many herbaceous and woody ornamentals is through a pre-emergence application of Pennant. Barrier/Casoron could be used pre-emergence in selected woody species. Directed spray applications of Basagran or Manage are possible around established woody ornamentals. Alternatively, a non-selective post-emergence herbicide can be spot-applied for control of this weed.

Wild garlic is a common perennial weed in landscapes. Unfortunately, most pre-emergence herbicides have no effect on this weed. Careful applications of Finale or Roundup are the only option in most landscapes.

Creeping woodsorrel is a low-growing perennial with mostly reddish-purple leaves. This plant throws its seed several feet when the seed pods are mature. It is sensitive to the nonselective herbicides Finale and Roundup. Include a pre-emergence broadleaf herbicide to stop re-establishment by seed.

Mugwort (wild chrysanthemum) is one of the most difficult-to-control field nursery weeds and can become a landscape problem

through contaminated nursery stock. There are no selective controls for this weed in herbaceous ornamentals. Barrier/Casoron can be applied in winter for control in established woody ornamentals. This weed can be difficult to control with Roundup. Scout for mugwort in new plantings and remove before it becomes established.

Knowing when different weed species germinate will guide you in timing pre-emergence applications. Grasses and sedges can be controlled selectively in many landscape situations



Mugwort

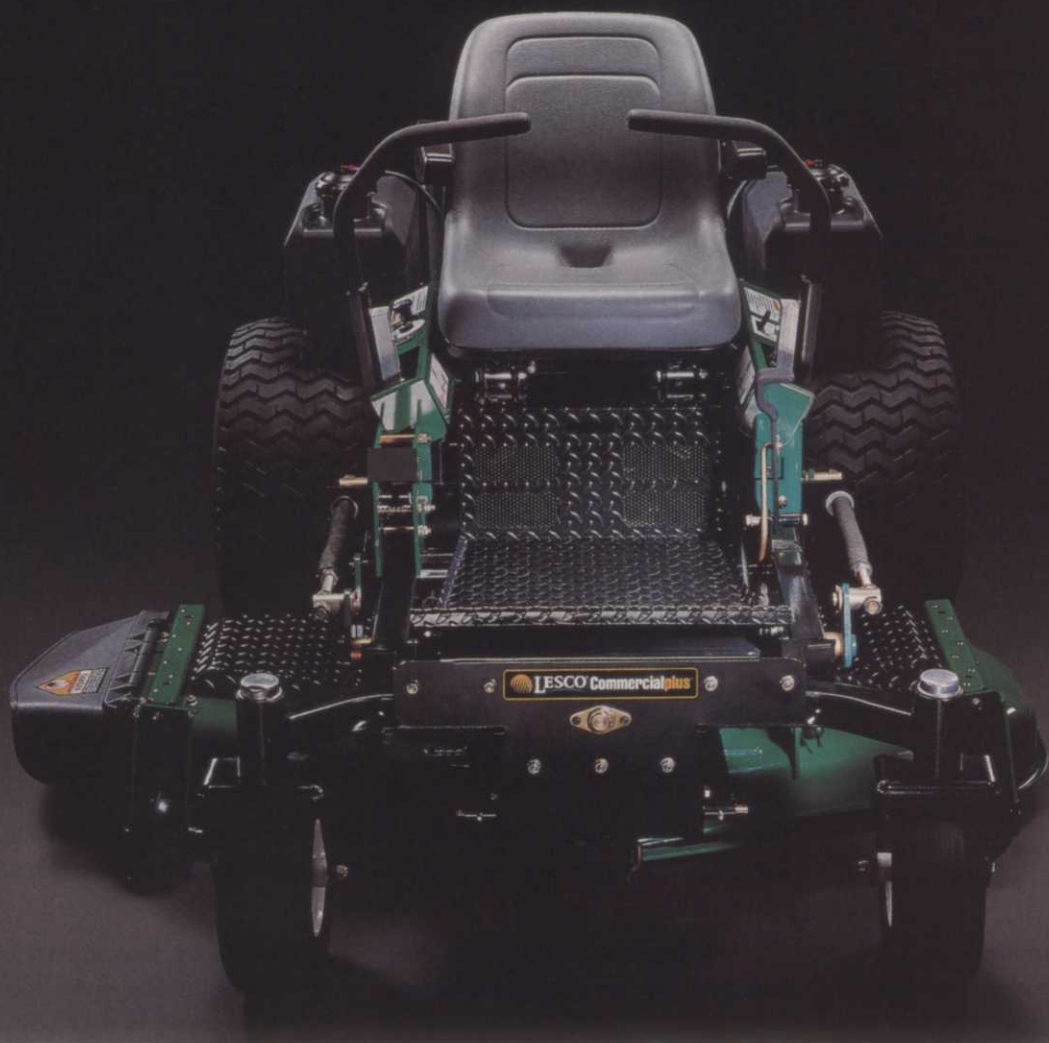
post-emergence. You'll need to be diligent, especially for perennial weeds, since few options besides application of a non-selective herbicide exist.

Once we learn how to control this entire list of weeds, a new set of species will probably invade our landscapes. Then it will be time to develop a new top 10 list!

Jeffrey Derr is Associate Professor of Weed Science with Virginia Tech.

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Time to add a new service?

Survey current customers and study the receptiveness of potential clients to gauge the likelihood of a new service's profitability in your market.

By ED, TODD & AARON WANDTKE

Many lawn and landscape company owners are considering expanding their services. This month we look at our make-believe Mixed Mowing & Maintenance Company to show what to consider when you're thinking about expanding your services.

Start by asking yourself:

- * Should the new service be offered to all of your current customers this year?
- * Should you test market the new service before offering it to your entire customer base?
- * Should you buy a franchise for the new service?

Choose your target market

Objectively determine the strength of your company's image. Study the retention pattern for current customers and get their feedback. Then, survey noncustomers in your market.

This will give you insight as to the receptiveness of the market and alert your current customers that you may be planning to offer a new service. Collect this information carefully.

Don't rush — take it easy

If you're still on track to launch a new service, answer these questions:

- * How willing are you to do a test?



Our make-believe company, Mixed Mowing & Maintenance Co., identified potential clients and gained the support of its current staff before offering its new seasonal color services.

- * Are you excited about doing something new and think a test is unnecessary?
- * Can you limit the new service to a restricted group of current customers?

You'll also have to determine how much financial investment is required, the risk level of your new venture and the availability of qualified people (or the ease of training them). Also consider the impact on your current employees. Many new service offerings fail because current employees are not informed, do not understand the purpose of a new service or feel left out.

When you understand the needs of

your employees, you can count on them to help launch the new service. If you don't involve these employees, you may find yourself with an "us" vs. "them" situation.

Should you franchise?

One way to lower your risk is to obtain a franchise in the new service area. Franchisers market a tested system for the purchaser and many of them offer extensive training and backup. Is a franchise for you?

Pros

- * Established service concept already being marketed in other areas.
- * First year's budget and marketing plan

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