

turfgrasses (Table 1), but not one herbicide is appropriate for all turfgrass weed control situations. The following guidelines should be considered to select a post-emergence herbicide.

● **Turfgrass tolerance**—Turfgrass species vary in their tolerance to herbicides (Table 2). For example, Bermudagrass has excellent tolerance to MSMA and DSMA; however, centipedegrass and St. Augustinegrass will be severely injured or killed by these herbicides.

Additionally, cultivars within a species may respond differently to the same herbicide. For example, Meyer zoysiagrass has better tolerance to MSMA than Emerald and Matrella. Always refer to the label to determine if a herbicide may be used on a specific turfgrass species or cultivar.

● **Time of application**—The time of year that a herbicide is applied can influence turfgrass tolerance. For example, dormant Bermudagrass has excellent tolerance to glyphosate; however, severe injury will occur if glyphosate is applied to semi-dormant or to actively-growing Bermudagrass.

● **Weed species**—No single herbicide will control all weed species. Correct weed identification is a prerequisite in selecting an appropriate herbicide. Weed identification manuals and assistance are available at county extension offices. Several chemical companies also distribute turfgrass weed identification manuals.

● **Application frequency**—Similar to turfgrasses, weed species vary in their susceptibility to herbicides. With some weed species and herbicides, a repeat application is necessary to effectively control the weed. For example, two applications of MSMA + metribuzin, at a seven- to 10-day interval, are necessary to control goosegrass. In contrast, small crabgrass can often be controlled with a single application of MSMA. Large, mature crabgrass, however, may require two applications.

● **Ornamental tolerance**—Turfgrass herbicides are commonly applied to sites that contain ornamental plantings. Ornamentals can be injured through contact of the foliage or green bark by herbicide vapor and spray drift and by ornamental root absorption.

Vapor drift is the movement of herbicide vapors from the area of application. Herbicides vary in their volatility or their potential for vapor drift. Ester formulations of the phenoxy herbicides (2,4-D, 2,4-DP) easily volatilize and can injure sensitive ornamentals by vapor drift. Ester formulations should not be used the

# Become a faster runner.



Or seed hauler. Or sprinkler adjuster. Or tractor fixer. Because our YFM225 can really get around fields. It has a tight turning radius. A dual-range transmission for pulling loads over crater-like terrain. And it's incredibly fuel efficient. To get a YFM225, run down to your Yamaha dealer.

**YAMAHA**  
We make the difference.

180 day limited warranty. Warranty terms are limited. See your Yamaha dealer for details. Dress properly for your ride with a helmet, eye protection, long sleeved shirt, long trousers, gloves and boots. Specifications subject to change without notice. Designed for off-road, operator use only. This product is to be used by one person only. Yamaha and the Specialty Vehicle Institute of America encourage you to ride safely and respect fellow riders and the environment. For further information regarding the SVIA rider course, please call 1-800-447-4700. Do not drink and drive. It is illegal and dangerous.

Circle No. 155 on Reader Inquiry Card

warm months of the year when conditions are favorable for volatilization. Spray drift damage can be prevented by spraying on calm days when the wind velocity is less than five miles per hour, and selecting a nozzle tip and spray pressure that produces large droplets.

Due to their soil residual characteristics, certain herbicides can injure ornamentals by root uptake. Avoid applications of post-emergence herbicides that contain dicamba or atrazine over the root zone of desirable ornamentals. Injury to ornamentals by root uptake is most likely to



Virginia buttonweed is rapidly becoming the number one problem broadleaf weed in turfgrass.

# get the *edge* with a BROUWER MOWER



High ground clearance for easy transport.



7-Gang hydraulic lift.



5-Gang hydraulic lift.



Tractor track removal brush.

Now with many new outstanding features . . . the Brouwer P.T.O. mowers are designed to produce the highest quality cut, no matter what the conditions, no matter the season. Wet grass, dry grass, short or heavy grass, Brouwer high capacity mowers can cut-it. Ruggedly built from quality materials the 5 or 7 gang units promise season after season of economical reliable service with outstanding performance, less horsepower requirements, less tractor fuel consumption and less compaction. Check the option packages that include Tractor Track Removal Brush; Quick Height of Cut Adjuster; Backlapper; Ball Hitch; Highway Tires and many more that allow you to customize a mower to suit your particular conditions and requirements. Also available are the Fairway Models with floating heads and front rollers for a perfect short cut on undulating fairways.

Put it all together and it adds up to dollar sense. Can you afford not to buy a Brouwer?

#### FEATURES:

- Rugged frame of lightweight high-strength structural steel
- High ground clearance for maneuverability around obstacles and over curbs
- Terra-tires or highway tires for maximum flotation or transportation
- Hydraulic or manual lift for easy transport
- Optional four, five, six or seven bladed reels
- P.T.O. driven with a proven V-belt drive system

**BROUWER**  
TURF EQUIPMENT LIMITED  
An Outboard Marine Corporation Company

7320 Haggerty Rd./Canton, MI. 48187 Telephone (313) 459-3700  
Woodbine Avenue/Keswick, Ontario, Canada L4P 3E9 Telex 065-24161 Telephone: (416) 476-4311

occur on sandy soils when a heavy rainfall immediately follows a herbicide application.

### Precautions

Post-emergence herbicides are applied after annual weeds emerge or when new growth of perennial weeds appears. Follow these guidelines for better weed control and improved turfgrass tolerance.

- Apply post-emergence herbicides in the fall and late spring months. Air temperatures are cooler at this time of year which results in better turfgrass tolerance to herbicides. Also, perennial weeds and many annual weeds are actively growing and are easier to control with post-emergence herbicides. Target the application to coincide with air temperatures between 60 and 90 °F. Applications below 60 °F can result in poor weed control.

- Do not apply post-emergence herbicides to turfgrasses and weeds that are stressed due to high air temperatures or drought. Turfgrass tolerance to post-emergence herbicides decreases as air temperatures greater than 90 °F and when turfgrasses are drought stressed. Herbicides that contain 2,4-D, MCP, dicamba or MSMA should not be applied at high air temperatures since there is a good possibility of increased turfgrass injury.

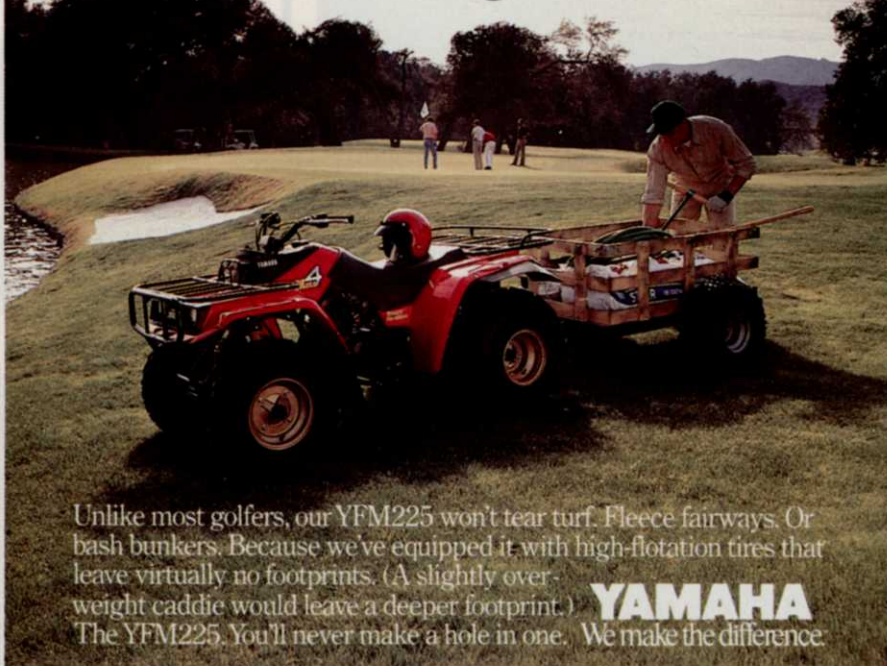
Many herbicide labels include warning statements relative to the use of the product at high air temperatures. Always follow the most restrictive warning on the label. Control is also poorer when herbicides are applied to environmentally stressed weeds than when applied to actively growing weeds.

- Do not apply post-emergence herbicides during the green-up process of warm-season turfgrasses. The risk of injury is greater during the spring green-up process (transition from winter dormancy to active growth) than when the turfgrass is fully dormant or actively growing (fully green)

- Repeated applications at low rates will generally improve control and turfgrass tolerance. Single applications at high rates generally cause more turfgrass injury than repeat applications at low rates. Additionally, single applications at high rates often do not control the weed. Refer to the label for information regarding repeat treatments.

- Mowing schedules will need to be coordinated with post-emergence herbicide applications. A general recommendation is to delay mowing three to four days prior to or after a post-emergence herbicide applica-

# Not a ground breaking idea.



Unlike most golfers, our YFM225 won't tear turf. Fleece fairways. Or bash bunkers. Because we've equipped it with high-flotation tires that leave virtually no footprints. (A slightly over-weight caddie would leave a deeper footprint.) **YAMAHA**  
The YFM225. You'll never make a hole in one. We make the difference.

180 day limited warranty. Warranty terms are limited. See your Yamaha dealer for details. Dress properly for your ride with a helmet, eye protection, long sleeved shirt, long trousers, gloves and boots. Specifications subject to change without notice. Designed for off-road, operator use only. This product is to be used by one person only. Yamaha and the Specialty Vehicle Institute of America encourage you to ride safely and respect fellow riders and the environment. For further information regarding the SVIA rider course, please call 1-800-447-4700. Do not drink and drive. It is illegal and dangerous.

Circle No. 156 on Reader Inquiry Card

**Table 2.**

**Warm-season turfgrass tolerance to post-emergence herbicides.**

Herbicide	Turfgrass			
	Bermuda-grass	Centipede-grass	St. Augustine-grass	Zoysia-grass
asulam	T*	NR-S	T	NR-I
atrazine	T (D)	T	T	I
bentazon	T	T	T	T
bromoxynil	T	T	T	T
2,4-D	T	S-I	S-I	T
2,4-D + dicamba	T	S-I	S-I	T
2,4-D + dichlorprop	T	S-I	S-I	T
2,4-D + mecoprop	T	S-I	S-I	T
+ dicamba	T	S-I	S-I	T
dicamba	T	S-I	S-I	T
diquat	T (D)	NR	NR	NR
DSMA, MSMA	T	S	S	I
glyphosate	T (D)	S	S	S
imazaquin	T	T	T	T
MCP	T	S-I	S-I	T
metribuzin	T	NR-S	NR-S	NR-S
pronamide	T	NR	NR	NR-T
sethoxydim	NR-S	T	NR-S	NR-I

\*Asulam is labelled for use only on 'Tifway' bermudagrass (419).

T = Tolerant at labelled rates; I = Intermediate tolerance, use at reduced label rates; S = Sensitive, do not use this herbicide; NR = Not registered for use on this turfgrass; D = Dormant applications only.

Even more  
It's kid proof



## Denser, darker green Manhattan II takes the bruises for your athlete

What goes up must come down . . . and that goes double for athletes' knees and elbows.

Improved Manhattan II perennial ryegrass has a built-in cushion developed through genetic improvement. The greater tiller density of Manhattan II takes the punishment athletes dish out, then springs back to retain its great-



looking appearance. All that toughness . . . with improved mow-ability to boot!

Manhattan II also provides a darker green color than the old standard Manhattan; improved disease resistance, drought and shade tolerance as well as fertilizer savings.

Manhattan II was developed to save on maintenance costs . . . but the *real* saving is on knees and elbows!

"Fall on the leader"

# Manhattan II

TURF-TYPE PERENNIAL RYEGRASS

Qualified turf associations can earn cash for turf research by saving Manhattan II blue tags. Contact your dealer for details.



Distributed by

**Turf Merchants, Inc.**

P.O. Box 1467 • Albany, OR 97321

Outside Oregon 800-421-1735

503/491-3622 TWX 910-997-0733

**Turf-Seed, Inc.**

P.O. Box 250 • Hubbard, OR 97032

503/981-9571 TWX 510-590-0957

Circle No. 151 on Reader Inquiry Card

tion. The delay prior to treatment will increase the leaf surface area of the weed and result in better spray coverage and control. The delay after treatment is necessary to allow adequate time for herbicide absorption and translocation in the target weed species.

- Do not apply post-emergence herbicides immediately before rainfall or irrigation. Generally the performance of most post-emergence herbicides is better when rainfall or irrigation does not occur for six to 24 hours after an application. Rainfall or irrigation immediately after treatment can wash the herbicide from the treated foliage and decrease control.

- Use surfactants and crop oil concentrates according to label directions. The effectiveness of many post-emergence herbicides is enhanced by the addition of a surfactant or crop oil concentrate to the spray mixture. However, indiscriminate use of surfactants or crop oil concentrates can increase the risk of turfgrass injury.

### Problem weeds

**Nutsedge**—Two different species of perennial nutsedge occur in warm-season turfgrasses. Purple and yellow nutsedge can be distinguished on the basis of vegetative differences (Table 3). Bentazon will provide control of yellow but not purple nutsedge. Monthly applications of MSMA in labelled turfgrasses can be used to suppress the growth of both species.

Imazaquin can be used in warm-season turfgrasses for yellow and purple nutsedge control. Recent work conducted in Mississippi and Georgia has shown that imazaquin is better than MSMA for nutsedge control.

**Dallisgrass**—Dallisgrass is a difficult-to-control perennial grass weed. It is believed that most pre-emergence herbicides will control dallisgrass that arises from seed. Established dallisgrass can be controlled in Bermudagrass and zoysiagrass with repeat applications of MSMA or DSMA. Applications should be made to actively growing dallisgrass. Also, a nonionic surfactant at 0.25% v/v is recommended with MSMA or DSMA for dallisgrass control. It is very important to stay on the treatment schedule (seven to 10 days between applications) for repeat applications. Shortening the application interval to five days may help in areas where dallisgrass has been difficult to control with MSMA or DSMA.

**Virginia buttonweed**—Virginia buttonweed is rapidly becoming the number one problem broadleaf weed in turfgrass. A perennial, Virginia but-

# A familiar construction sight.

Our YFM350 has an incredibly tight turning radius. A virtually maintenance-free shaft drive. An electric start that fires right up. Incredible fuel efficiency. And an impressive towing capacity. No wonder its reputation is building.

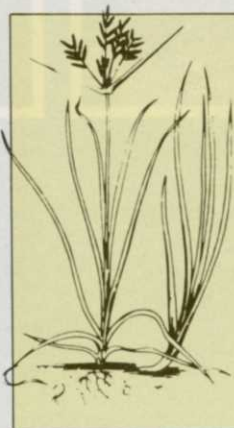
**YAMAHA**  
We make the difference.

180 day limited warranty. Warranty terms are limited. See your Yamaha dealer for details. Dress properly for your ride with a helmet, eye protection, long sleeved shirt, long trousers, gloves and boots. Specifications subject to change without notice. Designed for off-road, operator use only. This product is to be used by one person only. Yamaha and the Specialty Vehicle Institute of America encourage you to ride safely and respect fellow riders and the environment. For further information regarding the SVIA rider course, please call 1-800-447-4700. Do not drink and drive. It is illegal and dangerous.

Circle No. 157 on Reader Inquiry Card

**Table 3.**

### Vegetative characteristics of purple and yellow nutsedge.



Characteristic	Purple Nutsedge	Yellow Nutsedge
Leaf color	dark green	pale or light green
Leaf surface	flat or corrugated	flat or corrugated
Leaf tip	abruptly tapers to sharp tip	gradually tapers to sharp, needle-like tip
Rhizomes	wiry, scaly	weak, threadlike
Tubers	oblong, coarsely hairy	spherical, smooth
Tuber taste	bitter	sweet
Seed head color	reddish - to purplish-brown	yellow

### HINTS FOR HERBICIDE APPLICATION

1. Read and observe instructions and precautions on the herbicide label.
2. Calibrate sprayers and recheck calibration prior to herbicide application.
3. Apply the proper rate of herbicide. Too much herbicide may damage or kill turfgrass.
4. Apply herbicides in one pint of water per 100 square feet or one gallon of water per 1,000 square feet.

tonweed reproduces by seed, cut plant pieces and fleshy roots. Research conducted in Mississippi has shown that 2,4-D + dichlorprop has provided better Virginia buttonweed control than other two-way or three-way broadleaf herbicide mixtures.

Additionally, applications of oxadiazon or simazine at the time of 2,4-D + dichlorprop application will increase the control of Virginia buttonweed. The increase in control with oxadiazon or simazine is believed to be the control of Virginia buttonweed plants that arise from seed.

**Bahiagrass**—Repeat applications of MSMA or DSMA will control bahiagrass in tolerant turfgrasses. In centipedegrass, repeat applications of sethoxydim will suppress bahiagrass growth and seedhead development.

**Prostrate spurge**—Repeat applications of two-way or three-way broadleaf herbicides will be required to control this summer annual broadleaf weed. In Bermudagrass, low rates of metribuzin (0.125 to 0.25 lb. AI/acre) will effectively control prostrate spurge.

**Wild garlic**—Wild garlic is a perennial that appears in turfgrasses in the mid- to late-fall months. Fall (Novem-



Controlling prostrate spurge requires repeat applications of two- or three-way herbicides.

ber)/winter (January-February) applications of 2,4-D or two-way and three-way broadleaf herbicides that contain 2,4-D or dicamba will control wild garlic.

To effectively eliminate this weed from the turfgrass, the fall and spring treatment program will need to be repeated for two to three consecutive years.

Imazaquin has provided excellent control of wild garlic in experiments conducted in Mississippi. Late fall applications to emerged wild garlic have provided slightly better control than early spring applications.

Post-emergence herbicides enable

the turfgrass manager to control many problem weeds not controlled by pre-emergents. In the event of a pre-emergence weed control failure, post-emergence herbicides can be relied upon for a complete chemical weed control program. However, sole reliance upon post-emergence herbicides for a total weed control program is risky.

Cultural practices that favor good turfgrass growth and development, the use of pre-emergence herbicides and the timely use of post-emergence herbicides will help the turfgrass manager to achieve the goal of a high quality, weed-free turfgrass. **LM**

## SEE WHERE YOU SPRAY

Hi-Light™ Industrial strength colorant marks herbicide and sterilant treated spots and strips.



## SPRAY COLORANT REDUCES SKIPS, DRIFT, OVERLAP



Bas-Oil™ hydrocarbon soluble basal dye promotes tree and brush application accuracy.

Easy-to-see B-U colorants indicate chemically treated areas, spots, strips and spray patterns — even spray drift.

They help reduce application errors (overlap, off target and non target applications) with a bold color.

And they help promote uniform, accurate



Turf Mark™ turf colorant defines broadcast treated areas on grass, turf, etc.

applications of critical herbicides, soil sterilants, plant growth regulators and insecticides — simply, visually.

Easy to use. All B-U colorants are concentrated, easy to mix, wash off quickly and are available for applications on turf, weeds, brush, small trees, etc. Write or call for brochures.

**Becker-Underwood** 701 Dayton Road  
Ames, Iowa 50010 (515) 232-5907



Chemicals and colorants for Agriculture, Forestry, Industry and Turf Use

Circle No. 102 on Reader Inquiry Card



**“You can't cut grass with headaches.  
That's why I switched to Buntun.”**

*Bill Wright, President  
Lawn-Wright, Inc., Gaithersburg, Maryland*

“When I started my lawn service business seven years ago I had a push mower and riding tractor. It only took a year to realize I could cut a lot more grass in the same amount of time with one commercial walk-behind mower,” says Bill Wright, president of Lawn-Wright, Inc. “Four years later I discovered Buntun. Now I can cut even more grass with the same number of mowers.”

The reduction in maintenance headaches compared to his other mowers was so significant that two years ago Bill Wright replaced his eleven mower fleet with Buntuns. Here's why he just bought seven more:

***Welded steel deck construction***

“With Buntun, the deck is reinforced and welded into a single piece, not bolted together like other mowers. With no bolts to fall out, the problem of sagging decks and misaligned belts and blades was eliminated. Our maintenance went down and quality of cut went up.”

***Stronger parts/better engineering***

“Other manufacturers make caster supports, bell cranks and other parts from aluminum, which breaks easily. Buntun makes them from steel, so they're more durable. And, Buntun has fittings at all critical wear points so parts can be greased to make them last longer.”

***Better belt system***

“Because the belts are wrapped in straight lines without twists or back-bends, our belt life increased by at least five times when we switched to Buntun.”

***Variable speed drive system***

“Buntun's pulleys are larger so we get better belt contact and less slippage, even when they're wet and going up hills. We also get a larger range of speeds with Buntun than with other mowers.”

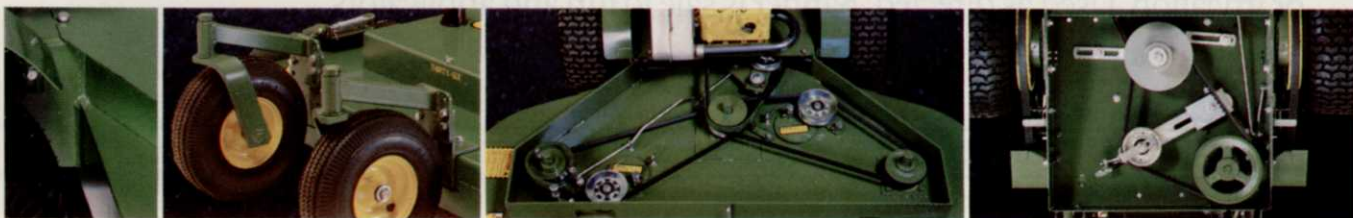
***Savings of time and money***

“There are many other features on Buntuns that lower my maintenance costs. Overall, I have saved at least \$6,000 in the two years since switching to Buntun, not including the added profit from increased productivity.”

If you need more cutting capacity and fewer headaches, discover the profit in converting your fleet to Buntuns. Call for the name of our local dealer.

**BUNTON CO.**

P.O. Box 33247  
Louisville, KY 40232 USA  
Phone 502/966-0550 • Telex 204-340





# HOW TO PREVENT DOLLAR SPOT & BROWN PATCH FROM RUINING YOU ON INSPECTION DAY.

PREVENT DOLLAR SPOT, BROWN PATCH AND OTHER DISEASES EARLY, BEFORE THEY BECOME A PROBLEM.

You don't want to be put on the spot; use the Banner® preventive program. Banner works systemically to control disease from the inside out. Once absorbed by the leaf and stem system, Banner won't wash off and keeps on working after drying, unaffected by rain or irrigation. Used as directed, Banner is safe to turf and applicators.

Chipco 26019 is a registered trademark of Rhone-Poulenc. Daconil 2787 is a registered trademark of Fermenta Plant Protection Co.

**CIBA-GEIGY** ©1988 CIBA-GEIGY Corporation, CIBA-GEIGY, Ag Division, Box 18300, Greensboro, NC 27419. Always read and follow label directions. Banner can be used on all turf grass varieties. (Use on all turf grass varieties label pending.) The following restrictions apply to Bermudagrass and St. Augustine grass. Do not use more than 2 oz. per 1,000 square feet every 30 days. Not labeled for use in California.





## THE BANNER PREVENTIVE PROGRAM

### How to prevent dollar spot

Apply Banner at a 1 oz. rate early (April-May through September) to prevent dollar spot from ruining your greens for full 28-day control.

### How to prevent brown patch and other diseases

Apply Banner at the 2-4\* oz. rate (May or June through September) for 10-21 day brown patch control. And at 1-2 ozs., Banner provides excellent systemic control of anthracnose, powdery mildew, rust, red thread and stripe smut. Or, use Banner at the higher 2-4\* oz. rate to achieve broader-spectrum control of leaf spot and melting out for 14-21 days. And the 4\* oz. rate for summer patch and spring dead spot at 30-day intervals.

### Tank mix Banner to control already-present brown patch

As with all turf fungicides, Banner's scheduling is critical. But when schedules are interrupted and brown patch is present, use Banner at a 2 oz. rate in a tank mix with contact fungicides like Daconil 2787® or Chipco® 26019. The contact fungicides will control existing diseases and Banner will prevent future infections.

New Banner. Unsurpassed protection for greens, tees, and fairways. And you'll know it on inspection day. \*4 oz. label rate pending

# BANNER. LONGER LASTING, PREVENTIVE CONTROL.



# A GOOD LINE

It might not get you a date, but a line trimmer will ease back pain by eliminating the need for stressful kneeling and bending to cut weeds or trim grass.

by Jeff Sobul, assistant editor

**O**ft times, brilliant ideas are born by accident. The line trimmer is no exception. Back about 17 years ago, George Ballas, a Texas real estate broker, got tired of the hairy weeds growing around the roots of two large oak trees in his yard.

So he went fishing for ideas and one popped into his head. He pulled an empty popcorn can out of the trash and poked holes for some nylon fishing line, then attached it to his long-handled power edger.

It was loud, he noted some years ago, but it did what he wanted it to do: rip grass and weeds from the oak's roots.

He called it the Weed Eater and set about marketing it. In 1972, his sales were a bit more than \$500,000. Over the next four years, they grew exponentially, to \$41 million in 1976. An industry was born.

## Spreading like weeds

About two dozen companies in the United States manufacture, assemble and market string trimmers these days for both home and commercial use. **LANDSCAPE MANAGEMENT** readers spent an estimated \$6 million on line trimmers in 1987. (This sales figure does not include the home market.)

Not surprisingly, trimmers have evolved and advanced immensely since their creation. Units are powered by electric cord and batteries in addition to gas-powered models.

Features that improve ease and efficiency of operation include automatic line feeders. The machines are safe, with line that tends not to cut skin, and debris guards to protect operators from flying detritus.

## Why so popular?

Weed Eater was the first prototype nylon-line grass trimmer. The invention created a new product category that developed rapidly. More than 20 million Weed Eater gas and electric-powered lawn trimmers have been sold to professionals and homeowners, according to the company. (Fred Pascarelli of Homelite notes there is no real distinction in product



One of three trimmers from Bunton.

between homeowner and professional.)

In all, says Weed Eater brand manager Chuck Mattes, since the market began in 1972, total market sales have exceeded \$2 billion. Units sold have gone from zero to nearly equaling that of lawn mower sales per year.

"We had no idea how big the market would be," Mattes notes. The machines' original intentions were for people physically unable to get down on hands and knees or bend over to use hand clippers to trim or edge.

But with prices for electric trimmers starting at around \$20, trimmers became common sights everywhere. "If anyone's ever used a chain saw, they can use a trimmer," Mattes states.

Sales of gas-powered trimmers rose dramatically after prices were reduced, beginning around 1981 and taking off in 1983-84. Sales continue to rise between 10 and 20 percent annually. Mattes estimates that homeowners account for 80 percent of the market, but that is "a function of price." Pricier versions go to the professionals. "People who have to use them every day look at the features rather than the price," he explains.

Municipalities benefit greatly from the machines. "The trimmer adds a versatility they never used to have," Mattes says, saving time and labor costs in the process.

Market growth shows no sign of

slowing much either. Companies such as Solo continue to enter the market. In Solo's case it was to complement an already existing line of lawn grooming products, according to Solo's Jim Dunne. New technology such as the automatic feed heads featured on many new models will continue to add fresh ideas into the market. And, as Mattes notes, "there's always something new on the horizon."

The following is just an introduction to some established product lines and what has recently been introduced into the market by a number of companies:

**Brushking**—Brushking recently introduced the BK35 string trimmer with a 35 cc engine weighing in at 12½ pounds. It has a padded shoulder strap and handles four different Brushking monofilament line heads.

**Bunton**—Bunton has three trimmer sizes available with a choice of a tap string feed or manual string feed on each model. The smallest unit features an 18 cc Kawasaki 2-cycle engine and flexible type drive shaft.

The larger commercial units feature solid drive shafts with heavy-duty reduction gear drives for long life. These models are available with electronic ignition and a 24 cc or 33 cc Kawasaki two-cycle engine. All models include shoulder strap, engine stand, on-off switch, tool kit and blade guard.

**John Deere**—The 110G, 210G, 240G and 260G are four new gas-powered nylon line trimmers and bushcutters developed by John Deere. All four trimmers are powered by a redesigned engine with a 21.2 cc displacement. This is an air-cooled, two-cycle single-cylinder power plant. A new carburetor for the 110G, 210G and 240G simplifies adjustments. Only the idle speed requires setting.

Models 110G and 210G cut a 16-inch path with a single-exit nylon cutter head and 0.080-inch-diameter nylon line. Shaft length is 48 inches. Models 240G and 260G cut a 17-inch path with a dual-exit nylon cutter head and