

Find out how you can run circles around the competition.



The new Vanguard front-mowing, rear-steering riding mower is just the latest reason a Deutz-Allis dealership could be the edge you need in today's lawn and garden market.

Deutz-Allis has the only lineup that includes these maneuverable front-mowing riders along with a full line of compact diesel tractors, lawn and garden tractors, rear-engine riding mowers, walk-behind mowers and snow throwers.

With Deutz-Allis you can offer a full line of the highest quality equipment, and deal with a single responsive source for retail credit, parts, service, advertising and merchandising assistance.

The Deutz-Allis line of under 40 hp diesel tractors is positioned to take full advantage of the present rapid growth in the market, offering both hydrostatic and synchronized gear models beginning at 14 pto horsepower. Consumer



products line ranging from 8 to 20 hp includes many other exciting and popular models like the "Ultima" garden tractors.

So no matter what the competition does, you've got them surrounded with a complete line of rugged, top quality equipment, very competitively priced to bring you top profit margins.

Give us a call or fill out and mail the coupon below for more information.

West of the Mississippi, call: 816-478-0824. East of the Mississippi, call: 614-890-1029.

For information on Deutz-Allis Lawn and Garden Dealerships, fill out and mail to: Lawn and Garden, Dealership Development, Deutz-Allis Corporation, Box 933, Milwaukee, WI 53201.

Name _____

Name of Business _____

Address _____

City _____ State _____ Zip _____

Phone _____



**When you think green,
think Deutz-Allis.**

Circle No. 116 on Reader Inquiry Card

6404

Getting a lock on lawn edging

to do a fair amount of work to prepare for edging installation. But a versatile new edging product developed by the plastics division of Eberhart Steel Products Corp., could take much of that hassle out of installation.

The product, called Edge Lock, is an interlocking system that eliminates the need for stakes and can be installed by one person.

The system requires no trenches or connectors and can be bent to form a square seven inches in diameter. According to the company, Edge Lock can form a circle 14 inches in diameter without bending because the interlocking pieces swivel.

Plastics division head Larry Eberhart says the product "is absolutely revolutionary as far as edging is concerned. There's really nothing this product will not do."

Forty interlocking pieces connect to make a 20-foot section, but come in a box as small as 11x5x7 inches. Each interlocking piece is 6½ inches wide and comes in heights of 4¾, 5¾ and 6¾. Using varied sizes, Edge Lock can be stacked so as to form a barrier of just about any specified height. Since it is available in black, ivory or green, the system also can be used to add color to landscape designs.

Edge Lock, constructed of polyvinyl chloride (PVC), is designed with a "bulb" on one end and a hollow "C" on the other (see figure A). Installation is as simple as sliding the hollow "C" of one piece over the bulb of another and tapping it into the soil (see figure B). A rubber mallet is recommended because a metal hammer may damage the edging. Each piece is .10 inches wide at the wall, .281 inches wide at the bulb.

Because the product is constructed of the PVC, a relatively expensive plastic, Eberhart doesn't expect an immediate profit from Edge Lock's sale. But because of the company's size, he ex-



Edge Lock in use.

plains, "We have the staying power and stability to wait five years."

The company began selling the product last November and has thus far sold on a limited, test basis. People will call up and ask for 100-foot sections for testing, Eberhart says.

He adds that the product, which took six months to develop, is in partial distribution now, but he expects nationwide distribution by the end of the year. "I didn't want distributors at first because of the price structure," Eberhart explains. He found that prices would vary too much from distributor to distributor.

However, associates advised him to look around for distributors who would work in the same price structure. He has found some and is currently working out arrangements with them. He estimates it will take 50 to 60 distributors for an effective national network. The company will market Edge Lock to landscapers only, he adds.

Response to Edge Lock has been overwhelming, Eberhart says. Although distribution will be limited much of this year, he still expects to sell at least three to five million feet of the product in 1987. The division has

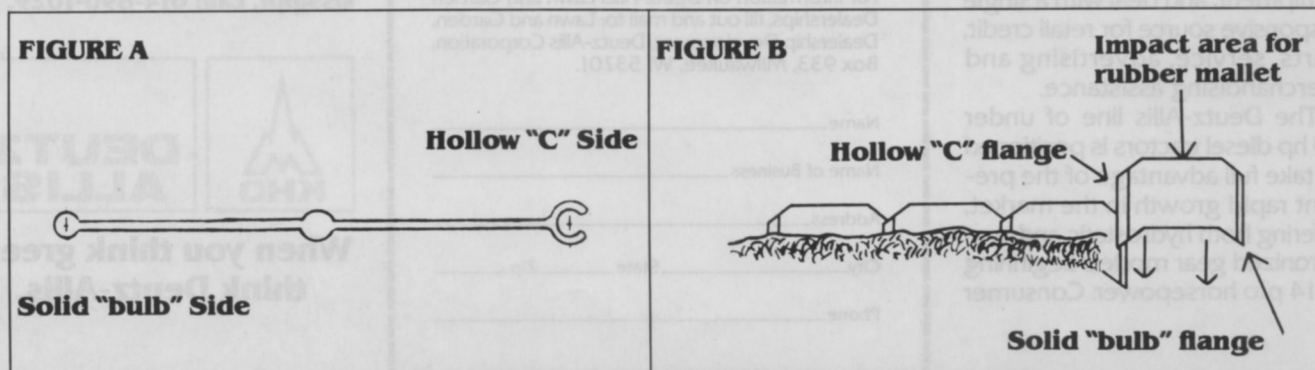
only recently expanded its production facilities and can now produce 150,000 feet of the product a day.

Eberhart is so confident that his product will do well, he boasts, "We will be the biggest edging manufacturer in the country in two years. I guarantee it."

The company has supported the release of the product by spending an average of \$9,000 a month on advertising. The distributors, Eberhart says, like having this kind of support. "We're taking care of our distributors," he adds.

The product is patent pending, and Eberhart doesn't expect to receive the patent for at least another year or two. But, he says, this may work to the company's advantage. "No one will try infringing on our product because no one knows what the patent office will give us."

Early "copies," he says, could lead to patent infringement law suits. After the patent is awarded, other companies will be able to develop products outside of the patent. But for now, Eberhart's plastic division will take advantage of the solo status and lock up as big a market share as possible. **WT&T**



NOTHING CAN WITHSTAND THE FORCE OF AN IDEA WHOSE TIME HAS COME!

INTRODUCING EDGE LOCK™ THE NEW SUPERIOR PLASTIC INTERLOCKING LAWN EDGING SYSTEM. (Patent Pending)

EDGE LOCK™

NO TRENCHES TO DIG!

EDGE LOCK™ is self-trenching. It creates its own trench as it is installed!



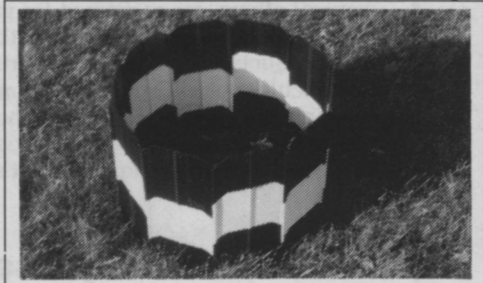
NO STAKES NEEDED!

The stakes are built right in. You drive it directly into the soil with a rubber mallet!



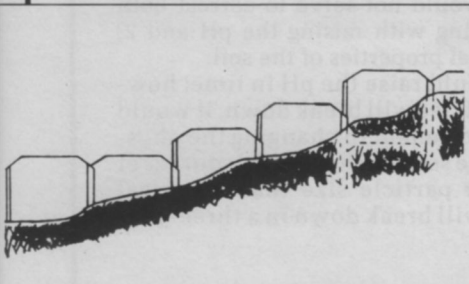
STACK 'EM UP!

That's right... you can stack pieces one on top of the other to suit your needs — around trees or whatever. Build it high or keep it low!



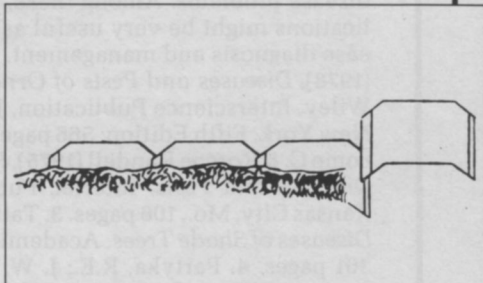
UP HILLS—DOWN HILLS!

Since EDGE LOCK™ slides together vertically, you can use it like a stair step to negotiate up or down hills easily!



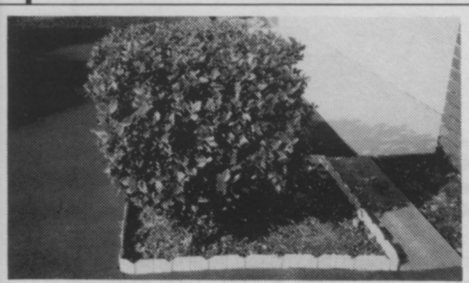
NO CONNECTORS NEEDED!

Each section slides inside the other bonding it together from top to bottom. Each section pivots inside the other so you can go around tight corners with ease. And it won't pull apart!



ON AND ON... AND ON... AND ON...

How about a 20' section in a small box 7" x 11" x 5" that you can carry in your hand? Flat pieces that can be bent *by hand* to make those sharp corners. Three different heights for different soil conditions. Competitive pricing, colors, PVC Construction and more. Want the whole story? Call or write for a free sample and brochure. Tell your distributor to "PLEASE STOCK EDGE LOCK™" because nothing else will do. (Patent Pending)



PLASTICS DIVISION/EBERHART STEEL PRODUCTS CORPORATION
417 East Jefferson Blvd., Mishawaka, Indiana 46545-6594, (219) 259-2461

DISTRIBUTORS WANTED

Circle No. 121 on Reader Inquiry Card

PROBLEM SOLVERS

by Balakrishna Rao, Ph.D.

Preventing beetle grubs

Problem: Are preventative measures against beetle grubs effective? If yes, when, what and how much? (New Jersey)

Solution: Preventative applications of insecticides might be beneficial in some situations where there was a history of a severe grub problem in the past and a severe problem is expected in the current season. The important thing to remember is the timing of the application.

Since most of the current grub control materials on the market vary in their length of residual, the applications should be timed close to the grub activity period. Preferably the materials should be in place when newly-hatched young grubs become active in the late summer or fall. The next best time would be in the early spring, as the mature overwintered grubs come up and begin feeding.

If the materials were applied too early (as a preventative measure), full benefit may not be obtained because of their short residual effect. Insecticides, such as Dursban, diazinon, Proxol, Turcam, Oftanol, Sevin and several others, are registered for grub control. The results may vary depending upon the turf environment and products used. Based on reports and experiences, it is difficult to predict the effectiveness of a product. Regarding the question concerning how much to use, use the rate recommended on the product label. Read and follow label specifications for best results.

Books to identify diseases

Problem: What in your opinion is the ideal reference book and easiest to use to diagnose ornamental flower/tree/shrub diseases? (California)

Solution: There are a number of books, publications and fact sheets which deal with ornamental plant disease problems. Among these, the following publications might be very useful as references for disease diagnosis and management. 1. Pirone, Pascal P. (1978), *Diseases and Pests of Ornamental Plants*. A. Wiley, Interscience Publication, John Wiley & Sons, New York, Fifth Edition: 566 pages. 2. Shurtleff, Malcolm C. & Roscoe Randell (1975), *How to Control Tree Diseases and Pests*. Intertec Publishing Company, Kansas City, Mo., 106 pages. 3. Tatter, Terry A. (1978), *Diseases of Shade Trees*. Academic Press, New York, 361 pages. 4. Partyka, R.E.; J. W. Rimelspach, B. G. Joyner and S. A. Carver (1980), *Woody Ornamentals: Plants and Problems*. Hammer Graphics, Inc., 427 pages.

Storing chemicals

Problem: How long can herbicides, pesticides, etc. be stored without losing their effectiveness? (Arkansas)

Solution: If stored according to manufacturer's

guidelines and label specifications, most pesticides we use today have a shelf life of two to three years. Shelf life or half life of the herbicides and pesticides can vary depending upon the storage conditions and the temperatures they are exposed to.

Most pesticides should remain effective as long as the containers are stored properly and are not opened. Pesticides which are two or more years old may not be as effective as the new ones, or they may even be phytotoxic as they get older. Check with your supplier or the manufacturer for further details.

Football fields and lime

Problem: Regarding the question in the June 1986 issue on *Football Fields and Lime*, we have a limestone quarry and make many granular, sand and chip-size products. When I read your recommendation that sand be applied after coring, my thought was that a limestone sand would serve two purposes. Is there a double benefit in using a limestone sand after coring on an athletic field? (New York)

Solution: I believe that the limestone sand product you are referring to is calcium carbonate and the sand is the size designation. The answer to your question would be no, because with the limestone sand you have, it would not serve to correct both problems of 1) dealing with raising the pH and 2) changing the physical properties of the soil.

This product would raise the pH in time; however, since the particles will break down, it would be difficult to obtain benefit in changing the physical properties of the soil. We have used sources of lime having larger particle size than a typical sand particle that will break down in a three-year period.



Balakrishna Rao is Director of Lawn Care Technical Resources for The Davey Tree Co., Kent, Ohio.

Questions should be mailed to Problem Solvers, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, OH 44130. Please allow 2-3 months for an answer to appear in the magazine.

Team prevents your weeds with all-season stamina. It's gentle on cool season turf grass, including bluegrass, ryegrass, bentgrass and other fairway grass species. And Team pre-emergence herbicide consistently delivers better control, longer control for your crabgrass and goosegrass.

Team spreads very easily. The clay carrier makes equipment calibration simpler and application more accurate. It also reduces dust problems.

Call time-out on crabgrass and goosegrass on your turf, for all season. With Team.

Talk to your Elanco distributor soon. Or call toll-free: 1-800-ELANPRO. In Indiana, call collect: 317-261-6102.

Elanco Products Company
A Division of Eli Lilly and Company
Lilly Corporate Center
Dept. E-455, Indianapolis, IN 46285, U.S.A.
Team™—(bifenox + trifluralin, Elanco Products Company)
Refer to the Team label for proper application instructions.



Circle No. 123 on Reader Inquiry Card

Put down Team™ this spring.

Or put up with crabgrass and goosegrass all season long.

PRODUCTS

Herbicide line expanded to meet special needs

Dow Chemical has expanded its line of Turflon herbicides with a variety of formulations designed to meet special



needs of lawn care operators. The new products are effective against a wider range of weeds. Turflon is also formulated to minimize movement through

soil and root uptake by off-target vegetation such as ornamentals.

The line includes Turflon II Amine, a pre-mix, broadcast herbicide in an activated amine base; Turflon Amine, developed for tank mixing; Turflon D, a pre-mixed, low volatile ester herbicide; and Turflon Ester, ester-based and designed for tank mixing.

Circle No. 190 on Reader Inquiry Card

Sprinkler control kit converts most valves

A battery powered automatic sprinkler control kit from Galcon is easy to install and requires no digging or wires. The system automates existing manual systems, turning sprinklers on and off automatically. Kits include parts to convert Champion, Richdel, Orbit and Rainbird (plastic) 3/4-inch and one-inch manual valves.

The controller operates on two nine-volt batteries which last up to two years. One button controls length and time of watering. A manual override lever allows skipping or additional cycles without disrupting the automatic program. The unit has

built-in flow control and operates from 30 to 150 psi. Each kit retails for under \$30.

Circle No. 191 on Reader Inquiry Card

Aerifiers mark entry into turf market

John Deere will enter the golf and turf equipment market with a new line of five aerifier models. Shatter aerifiers are available in two widths: the 260S



with a 60-inch width, and the 280S with an 80-inch path.

Both are mounted on a category I or II three-point hitch and include storage stand and weight tray. The 260S has 24 6 1/2-inch induction-hardened tines and two 4 x 28-inch rollers. The 280S has 36 tines and two 4 x 41-inch rollers. Optional four-inch tines are

The Growing Choice

Hydrograssers & Power Mulchers



- Low Maintenance Design
- Dual and Quad "Hydro-Jet"
- Agitation with Verticle Homogenizers
- High Speed Mulch Grinder
- No Clog Mulch Chamber
- Direct Drive

Reinco Hydrograssers and Power Mulchers offer you the dependability you need because they are designed with the operator in mind. Our Hydrograssers range in capacity from 800 to 3500 gallons and feature easier to maintain "Hydro-Jet" agitation. Reinco Power Mulchers utilize time-proven straight through drive while the M80C offers as standard a variable speed automated bale feed system.

Reinco

P.O. Box 512, Plainfield, N.J. 07061-0512 (201) 755-0921

WRITE OR CALL TOLL FREE (800) 526-7687

Dealer inquiries invited.

Circle No. 189 on Reader Inquiry Card

The long and the short of high-capacity rotary mowing.

The HR-15. Long on mowing. Short on costs.

With a massive 188 inch cutting swath, the HR-15 takes long, powerful strides over all types of terrain. So it can chop the most demanding mowing schedules down to a money-saving size.

Equipped with rotary or flail decks.

Based on the time-proven reliability of the Jacobsen F-Series Tractor, this rugged, self-contained mowing unit is designed for long hours of dependable service. With your choice of decks: rotary or our unique new fine-cut flail.

Three interchangeable rotary decks—each with its own hydraulic control — are constructed of heavy gauge steel for long life under the toughest conditions. Plus large caster wheels and anti-scalp rollers help give you a super-smooth, manicured finish over all types of turf. Even over rough terrain.

And Jacobsen's three interchangeable "fine-cut" flail



The HR-15 is also available with "fine-cut" flail decks. Jacobsen exclusives for a superb quality cut.

decks provide a smoother, more even cut than any other flail on the market — even in tall grass. The flail's hooded, full-width discharge helps prevent windrowing, and eliminates much of the danger of discharged objects — a big plus when mowing around crowded parks or institutions.

The HR-15 also features a 20-gallon fuel tank, enough for a full day of mowing. And the rugged 78-hp Perkins diesel and radiator are mounted up front, out of the way of clippings and debris, for clean, cool operation.

Plus creature comforts like power steering, conveniently located controls, and the cushioned, shock-absorbing seat with back rest, minimize operator fatigue.

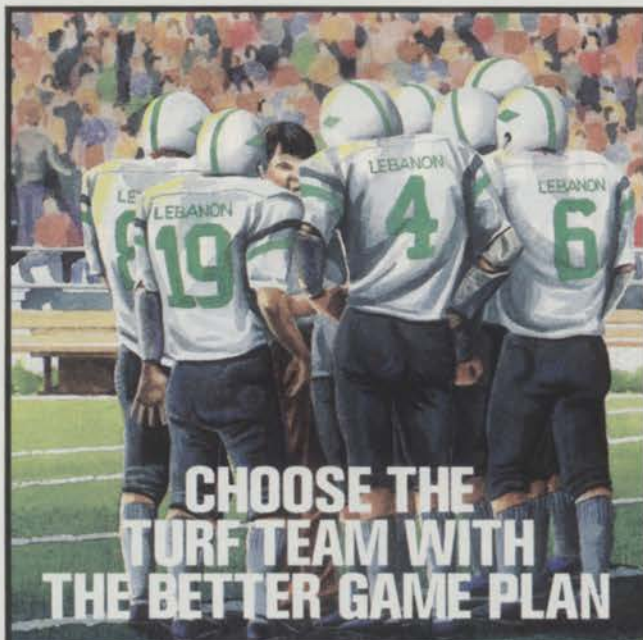
The HR-15 high-capacity mower from Jacobsen. It shortens up the longest mowing jobs. For more information, or to arrange a free demonstration, contact your Jacobsen Distributor. Remember, lease and finance plans are available.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

Circle No. 257 on Reader Inquiry Card





**LEBANON PREMIUM FERTILIZERS
AND TEAM™ CRABGRASS PREVENTER...
AN ALL-STAR TEAM YOU CAN
WIN WITH EVERYTIME**

Lebanon premium fertilizers with Team™ have the defensive strength of benefin and trifluralin, yet they're gentle on your turf. The combination of these proven herbicides kills the seeds of annual bluegrass, smooth and hairy crabgrass, goosegrass, as well as green and yellow foxtail—as they germinate. And our premium quality fertilizers strengthen Northern or Southern turfgrasses.

Pick the right team for you.

You can select the winning Team™ combination that meets your game plan. Choose from our standard line-up, such as **Lebanon Country Club 19-4-6 with Team™ Crabgrass Preventer**, or give us your preferred fertilizer analysis and we will custom blend it with Team™ for you.

Together, one application of Lebanon fertilizer with Team™ will give you a winning season against crabgrass and other annual weeds.

For more information on Lebanon premium fertilizers with Team™, call our Greenline today at 1-800-233-0628, in Pennsylvania, call 717-273-1687. And start getting help with your game plan against crabgrass and goosegrass... from the ground up.



Lebanon
TOTAL TURF CARE

A division of Lebanon Chemical Corporation
P.O. Box 180 • Lebanon, PA 17042

Team™ and Diagonal Color Bar are the registered trademarks for Elanco Products Company's combination of benefin and trifluralin.

available on both units.

The tines are slightly twisted to shatter the soil in three directions at high speed, allowing the soil to heal quickly, the company says.

The Model 132 aerifier is a pull-behind; the 232 is mounted on a category 0 or I three-point hitch. Both have 32-inch working widths, six 18-inch diameter disks and 60 3/4-inch open spoons, slicer blades and disk weights.

The model 270 is mounted on a category I three-point hitch and has a 72-inch width. It has 14 18-inch diameter disks, 140 closed spoons and a weight tray.

Circle No. 192 on Reader Inquiry Card

**Double roller available
in pull-behind or hitch**

A new line of double roller rock rakes from Harley Rock Windrows and Pickers is available with either pull-behind or three-point hitch attachments in three different sizes: for large open fields, park and recreation



projects, down to commercial and residential landscaping.

The double roller allows the moving of windrows several times while cleaning and leveling. The windrower is a companion piece to the Harley Rock Picker and can be used as an accessory to other existing rock picker models.

Circle No. 193 on Reader Inquiry Card

**Seed coating combines
nutrients and fungicides**

Nutri-Kote Plus Apron is the latest advancement in seed coatings from CelPril Industries.

CelPril says that Nutri-Kote Plus Apron controls pythium and other seeding diseases, helps turf establish quicker and promotes more lush green leaf growth.

Nutri-Kote contains an exclusive formula of nitrogen, phosphorus, potassium, sulfur, iron and zinc in the right combinations for various bentgrasses, bermudas, ryes and

Circle No. 138 on Reader Inquiry Card

One of the strengths of Team™ is its weeks of control. One application puts an end to crabgrass and goosegrass for up to 20 weeks.

The control's not just longer, it's more effective, too. Research by leading universities shows that Team provides outstanding annual grass control all season long while being gentle to all turf species.

That's because of the way Team works. It stays put on cool season turf. Won't leach out, even in heavy rainfall.

And once activated, forms a vapor zone that keeps weeds from emerging for up to 20 weeks.

That's Team's most impressive strength. Its weeks of weed control.

See your Elanco distributor. Or call toll-free: 1-800-ELANPRO. In Indiana, call collect: 317-261-6102.

Elanco Products Company
A Division of Eli Lilly and Company
Lilly Corporate Center
Dept. E-455, Indianapolis, IN 46285, U.S.A.
Team™—(bifenox+trifluralin, Elanco Products Company)
Refer to the Team label for complete use directions.



There's only one thing more impressive than Team's strengths.

Its weeks.



FYLKING
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Remember the name because you're going to hear a lot about it. Fylking Kentucky bluegrass lawn is something special. It forms a dense, thick turf, more disease and drought resistant. Greens up earlier, stays greener longer. Fylking can be cut as low as $\frac{1}{4}$ inch, even $\frac{1}{8}$ inch for home putting greens. Proven over many years of international certified testing. Ask your seed distributor for Fylking.

Fylking — the World's Fair grass.

FYLKING
KENTUCKY BLUEGRASS

U.S. Plant Patent 2887

Another fine, quality-controlled
product of Jacklin Seed Company.

Circle No. 133 on Reader Inquiry Card

fescues.

"Environmentally, it has a value," says Doug Toews of CelPril, "because it puts the nutrient and fungicide where it needs to be. You're not broadcasting the pesticide."

According to CelPril's research, the coated seed growth rate runs three to four days ahead of uncoated seed 30 days after germination. And the survival rate for coated seeds is about 40 percent higher on a seed-to-seed basis.

Circle No. 194 on Reader Inquiry Card

Pruner gains distributor for North American market

The Power Prune 250, manufactured by Innovative Machinery International Ltd., New Zealand, has signed Impex Trading, West Bend, Wis., as its exclusive North American distributor.

The pruning gun weighs about two pounds and can cut up to one-inch green wood. The unit is powered by a lightweight single stroke, single-cylinder, propane motor.

Its light weight and ease of operation help to reduce fatigue.



Circle No. 195 on Reader Inquiry Card

Rotary riding mower gives 54-inch cut

Middlesworth Engineering and Manufacturing has added the Model C54R riding rotary lawn mower to its line. The mower is an out-front variety with a 54-inch cut. It has a lever to adjust cutting heights to between one and four inches.

continued on page 122

