

We're so sure our revolutionary new walk-behind 2-cycle crankshaft system will stand up to what you run into, that we're backing it with an exclusive two-year warranty.

No one else in the industry offers a two-year crankshaft warranty on

small trimming mowers. Because no one else has what Jacobsen has. A revolutionary (patent applied for) crankshaft protection device incorporating an adapter and stiffener that help prevent twisting, bending or breakage. Thus, effectively ex-

tending engine and equipment life, while maximizing productive cutting time.

In fact, extensive testing showed this unique Jacobsen design to be

STIFFENER

vastly superior to anything in the market. At full throttle, a solid steel, one-inch shaft was placed in

> the path of the rotary blade. Competitive crankshafts bent on contact, yet the Jacobsen crankshaft survived. Not once, but again and again, without damage. Combine the

exclusive new Jacobsen crankshaft system with our durable 2-cycle engine, rugged lightweight aluminum magnesium alloy deck, heavy-

ADE ADAPTER duty greasable wheels, large fivequart fuel tank and shock-absorbing front bumper and you've got the most reliable commercial walkbehind available. We guarantee it.

So see your nearest Jacobsen Commercial Products dealer for more information and a free demonstration of the industry's most durable walk-behind rotary mower.

Jacobsen Division of Textron Inc., Racine, WI 53403.



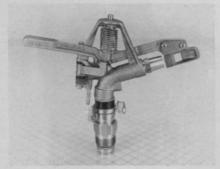
Jacobsen Division of Textron Inc.

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Circle No. 121 on Reader Inquiry Card

Heavy-duty sprinkler handles abrasive water

Rain Bird says The Tough Bird heavy duty pivot sprinkler (model 85EHD-LA) was developed for use in the highly abrasive water conditions nor-



mally experienced on center pivot machines.

According to Rain Bird, the sprinkler's 17° body performs well in areas experiencing extreme winds.

The sprinkler bearing is completely protected from dirty water intrusion, resulting in extremely long bearing life in the demanding conditions of center pivot use. This is accomplished by the newly designed hooded top seal assembly, which completely encloses the upper bearing area, coupled with Rain Bird's "H" style bearing with a beefed up bearing washer stack.

Rain Bird says the locking friction collars are virtually indestructible, and have extended tabs for improved performance. The arm and upper trip are reinforced with stainless steel buttons to inhibit wear at the interface of the arm and upper trip.

The newly designed trip assembly is manufactured with heavier brass sections, and features hooded bearings to maximize reliability and to eliminate wear at the interface of the trips.

Circle No. 191 on Reader Inquiry Card

New adjustable sprinkler has many applications

The I-40 ADS from Hunter Industries is an adjustable arc sprinker designed for sports fields, golf courses, cemeteries and other large turf areas.

The highly versatile sprinkler may be set at any arc between 40° and 360° with a simple adjustment that can be made when the water is on or off. For installations that require full circle coverage, the I-40 is available as model I-40-36S, a fixed 360° circle.

Both models are supplied with five interchangeable nozzles to vary the radius and discharge rate. The radius may be varied from 45 feet to 67 feet; the discharge rate may be adjusted from 7 gpm to 25.3 gpm.

Hunter says the sprinklers include safety-cushioned rubber covers and reliable stainless steel risers. Vandalresistant features include a 15/8 inch exposed surface diameter and heavyduty retraction spring.

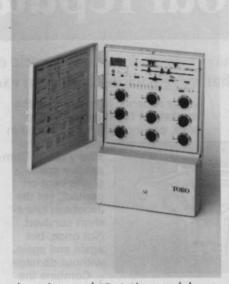
A drain check valve with up to 15foot change in elevation is also standard.



Circle No. 192 on Reader Inquiry Card

Water efficiency goals the quest of controllers

The Vision II irrigation controllers from Toro offer dual programming in



six-, nine- and 12-station models, up to 14-day scheduling and three watering start times per program. The cabinets come in plastic or metal, with a pedestal mount option available for metal cabinets.

"We're seeing increasingly frequent droughts, depletion and pollution of our groundwater resources, says Wade Terry, director of sales, marketing and service. "Water conservation today is imperative.'

These state-of-the-art controllers feature an exclusive Water Conservation Control that lets the user adjust all watering run times from 25 percent to 200 percent. Dual programming makes the Vision II compatible with a variety of lawns and gardens. A Watering Delay system lets the user turn the system off temporarily for one to four days; restart is automatic. Circle No. 193 on Reader Inquiry Card

Injectable wetting agent saves water, labor

Aquatrols is introducing a new soil wetting agent formulation, AquaGro Injectable, for injecting into golf and landscape irrigation systems. Injectable is a low-viscosity formulation containing 33 percent AquaGro soil wetting agent. The new formulation can be injected into irrigation systems using any commercially available irrigation injection pump.

With AquaGro Injectable, the user can easily adjust rates and application frequency to obtain the desired level of wetting agent performance and economy.

"Golf course superintendents are telling us that injecting soil wetting agents is an ideal method of applying them to get the benefits all over the course, especially fairways," says Robert Moore, company president.

Aquatrols says the AquaGro Injectable will reduce water run-off and evaporation and enhance the performance of water soluble chemicals. AquaGro is available through more than 100 turf distributors across the country.

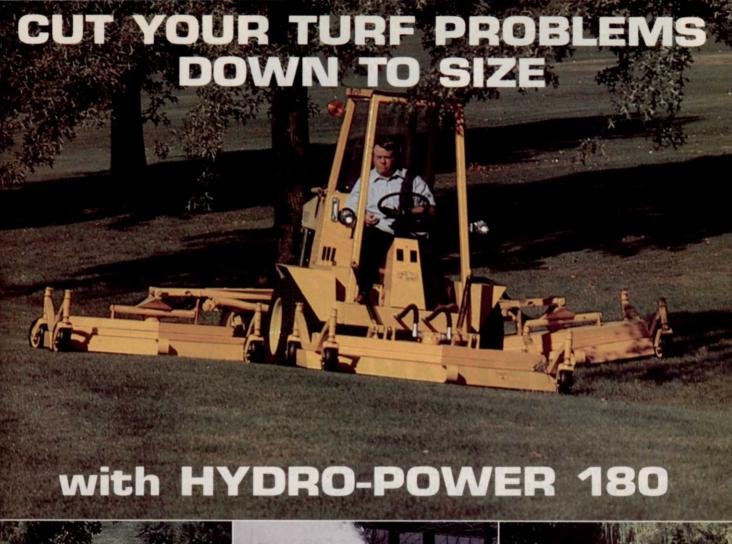
Circle No. 194 on Reader Inquiry Card

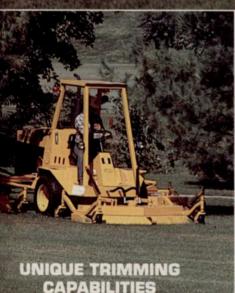
New line of backflow prevention devices ready

Buckner, Inc. recently released a full line of pressure vacuum breakers, double check and reduced pressure backflow prevention devices.

The devices are available in sizes ranging from 1/2- to 2-inches, and incorporate a removable bronze seat. They are available with or without ball valves. All ball valves and test

continued on page 104







YEAR-ROUND VERSATILITY



Your search for a high capacity mower encompassing a one man operation is now concluded. The Hydro-Power 180 with its 15 foot hydraulically driven rotary mower has a mowing capacity of up to 11 acres an hour while incorporating rear wheel steering for maximum maneuverability. Cutting units are designed for maximum floatation and may be used individually or in any combination of the three.

A foot pedal controlled hydrostatic transmission affords variable mowing speeds as well as transport speed to insure maximum travel time between the job sites. The Hydro-Power 180 offers year-round versatility with a 2-stage, 73" snow blower and heated cab.



HOWARD PRICE 18155 Edison Avenue Manufactured by TURF FILLIPMENT Chesterfield, Mo. 63017



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fairway, park and lawn areas ahead of the times with All★Star. Seed with confidence because this is a proven perennial ryegrass that grows in sun and shade, germinates quickly, forming an attractive turf that withstands heavy traffic.

ecause All Star resists sod webworms and other turf insects as well as brown patch, leaf spot and crown rust, you have a low maintenance turf. And where else will you find such a uniform, richly textured, thick, dark-green turf? That's why it's named All Star! It grows well with bluegrasses and fescues.

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ROTHWELL SEEDS LTD. Lindsay, Ont. CAN K9V 4L9 PRODUCTS from page 102



cocks are resilient seated.

Circle No. 195 on Reader Inquiry Card

Lawn edger designed with four cycles

Homelite Division of Textron, Inc. has developed a new four-cycle lawn edger, the model E300HD. Homelite says innovative features, heavy-duty



construction and compact design make this unit the ideal edger for the commercial user.

Homelite says state-of-the-art components make the E300HD more efficient and almost maintenance free. A magnetron solid-state ignition provides reliable starts with no maintenance. A ball-bearing cutter head gives the unit long life and smooth performance. A wide front wheel provides stability and balance and makes the unit easy to maneuver in tough edging situations. The blade depth control is at the operator's fingertips for precise depth control when edging along curves. A simple lever permits four-position cutterhead adjustments for bevel cutting (either right or left angles).

Circle No. 196 on Reader Inquiry Card

Large mowing unit covers lots of ground easily

The Hustler Range Wing attachment

Surflan. Roundup. Mix them together, and you've got control that knocks weeds down and keeps them down. Three times longer, in fact, than Roundup alone.

That's what landscapers all across the country are now finding. They are getting better weed control and more satisfied customers. And they're saving time and labor costs because they're applying just once.

With a Surflan/Roundup tank-mix, you get complete control of over 50 different weeds—including such tough species as crabgrass, barnyardgrass, chickweed, spurge, johnsongrass and

foxtail. And Surflan won't harm your nearby landscaped areas, either. It works with little or no lateral movement.

Join the growing list of satisfied users. Add Surflan to your Roundup and stretch your weed control three times longer. See your Elanco distributor for Surflan. Or call toll-free: **1-800-352-6776.**

Elanco Products Company A Division of Eli Lilly and Company Lilly Corporate Center Dept. E-455, Indianapolis, IN 46285, U.S.A. Surflan*—(oryzalin, Elanco) Roundup*—(glyphosate, Monsanto)



Circle No. 116 on Reader Inquiry Card



from Excel Industries covers more than 12 feet of turf in one pass.

Excel says the Range Wing is the only commercial wing mower on the



market that can turn 360 degrees within its own width.

The main deck of the Range Wing mower attachment is an upfront, 72inch dual trim deck with 93/4-inch offset trim capability on both sides. Each side wing is 48 inches wide with rear discharge and can be raised or lowwered separately to easily maneuver around obstacles and through gates. Each deck floats independently up to 20° above and below the terrain, resulting in a smooth even cut that virtually eliminates scalping. Single or dual wings can be used on Hustler models 340, 400 and 440.

Hustler's efficient deck drive system allows for more power with a smaller engine, making it one of the best large acreage mowing values on the market today. All Hustler mowers feature one-hand hydraulic steering for true zero-degree radius turning and total control of forward and reverse speeds, braking and turns.

Circle No. 197 on Reader Inquiry Card

Diesel-powered mower offers cruise control

Gravely's first diesel and newest, largest commercial mower is the Pro Master 30-H. It features a 30-hp Yanmar diesel, Sundstrand hydrostatic



transmission and 72-inch deck. Built for fast mowing and dependability, it turns leaving a zero-uncut-circle. The Pro Master is equipped with a directdrive PTO.

Power steering and cruise control are standard.

Circle No. 198 on Reader Inquiry Card

Five-gang mower converts to a verticutting unit

The hydraulically driven 5-gang



Verti-Reel cutting unit from Kubota is two units in one.

A quality cut blade reel mower easily converts to a verticutting unit. The cutting height can be precisely set from 3/8 to three inches. The Kubota line of Verti-Reel products provides complete mowing and cutting units designed and built for total turf management.

Circle No. 199 on Reader Inquiry Card continued on page 108

"WE SPRAYED 62,000 ROSES WITH WILT-PRUF AND LOST LESS THAN 50!"

- Tony Notaro, owner, Larchwood Construction Co., Holtsville and Rochester, N.Y.

Tony Notaro's landscaping business has grown from zero to one of the 25 largest in the

nation in just 32 years.



Tony and daughter Kathy inspect a juniper before

Notaro was landscape contractor for the Levittowns, planting 14,000 homes on Long Island, 5,000 in Delaware and Virginia and 3,000 in Florida. He most recently completed a million dollar landscape renovation

of the Flushing Meadow Zoo in New York City. That landscape includes rare and exotic plants, plus wildflowers and other meadow grasses.

"We transport and plant lots of 12-to-24 inch caliper trees," Notaro said. "The nursery digs and tags the trees. Our standard procedure is to require the supplier or grower to spray the trees with Wilt-Pruf before we start to dig. We like to hold freshly dug trees in the shade for about 10 days and keep the wrapped ball wet on each tree during the entire period."

Notaro takes pride in his landscaping business. That's just one of the reasons he uses and recommends Wilt-Pruf.

Wilt-Pruf is the proven way to reduce moisture loss and drying out when plants are under stress. Order from your distributor today.

A longtime member of the Associated Landscape Contractors of America (ALCA), Notaro encourages landscapers to join ALCA to stay up-to-date on technical knowledge and exchange information.

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All of these benefits, at a User Friendly Price.

Unequaled Micronutrient Technology



See your local distributor or call us toll free at 1-800 TRY-IRON or 1-800-879-4766.

PRODUCTS from page 106

New triplex mower steers easily, with 62-inch width

The Jacobsen Greens King IV comes with newly designed, easy-on/easy-off grass catchers.

Easier steering is another feature. The cutting units "float" to follow ground contours. Patented steering



action virtually eliminates marking during turns. Reels lift with a convenient foot pedal, and stay level while raising and lowering to prevent scuffing.

A 62-inch cutting width means 18 average-sized greens can be mowed in under four hours.

The Greens King IV is the only triplex available with the patented Turf Groomer greens conditioner, to make greens healthier and faster.

Circle No. 200 on Reader Inquiry Card

Single-arm mower offers choice of cutting heads

The Micro-Mower Company has a new, single-arm mower for 15-30 hp compact tractors.

The mower offers a choice of cutting heads: EPA 52-inch multi-purpose rotary head and a reversible 41-inch high speed flail. A unique "hydra-hover" floating arm system al-

"hydra-hover" floating arm system allows the cutting head to "float" and follow the contour of the turf, reducing the chance of scalping.



Micro-Mower says the mowers are self-contained and attach to the threepoint hitch to facilitate easy mounting. The unit reaches to the left and right side, up to 92.5 inches from the center of the tractor.

Circle No. 201 on Reader Inquiry Card

Drug testing kit yields instant results

The Wells Fargo InstaScreen drug screening system gives fast, reliable and affordable tools against employee drug abuse.

Using urinalysis, the patented InstaScreen test helps you instantly confirm the presence or absence of five controlled substances: marijuana, cocaine, heroin, amphetamines or DCP.

InstaScreen is completely self-contained, allowing applicant to be screened in your own facility, eliminating chain of custody worries, refrigeration, long time delays, as well as the possibility of contamination or losing a specimen.

Circle No. 202 on Reader Inquiry Card

Tree chipper features hydraulic feed system

The 19L Tree Bandit whole tree chipper from Bandit Industries, Inc. features a powerful, yet simple hydraulic feed wheel system close



coupled to the chipper disc, allowing it to reduce very limby whole trees to chips in seconds.

The unique design of the hydraulic swivel chip discharge allows the chips to be discharged in a 220° arch to either side or over the tongue. Chips can thus be blown into a chip box on the towing vehicle, making it possible to work from the roadway, blocking only one lane.

The swivel discharge is convenient for spreading chips on the site and to separate chips into piles.

The loader is located over and to the right of the infeed, providing the operator an excellent view of the infeed spout, the landing and the chip discharge.

The 19L is designed for off-road use. Large, 20-inch tires and dual axles give good ground clearance, floatation and balance.

Circle No. 203 on Reader Inquiry Card
continued on page 110

"With a Wells Cargo Behind ... You Never Look Back"



28 FT. WELLS CARGO EXPRESS WAGON

CATALOGS

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SINCE 1954

ELKHART, IN 46515

Circle No. 176 on Reader Inquiry Card

P.O. BOX 728-837

Some Things in Nature Were Meant to Have Spots. Your Turf Just Wasn't One of Them.



DYRENE* 4 turf fungicide. Effective control in the prevention of leaf spot. It keeps your turf, and your reputation, looking good. There's no better way to keep your turf spotless.

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DYRENE 4





PLANTING A TREE IS HALF THE BATTLE . . .

The other half is keeping it alive. Use ROOTS*, the root growth enhancer, to make your installed trees and shrubs thrive. Landscape contractors use ROOTS for fast root regrowth that reduces transplant shock and helps the tree support its above above-ground biomass. Just drench the soil after planting with ROOTS diluted 50 to one. Two ounces of ROOTS (concentrate) to one inch caliper, so a gallon will treat sixty seedlings or ten to twenty large trees.

REDUCE LOSS IN SOD INSTALLATIONS

No matter how careful you are when you install sod, stress from drought, heat, poor soil, etc., threaten the life of the turf. New turf needs fast root regrowth to survive. Use two gallons of ROOTS per acre (60z/1000 sq. ft.), diluted 50 to one with water. Spray the ground before laying sod, or spray the sod after installation.

KEEP EVERYTHING LOOKING GOOD WITH ironROOTS*

If you are not getting the growth, healthy appearance, or flowering that you want in your plantings, you need ironROOTS, ROOTS root growth enhancer plus 3% chelated iron citrate. Use ironROOTS on your turf and plantings once in the spring, once in the fall. Apply like ROOTS.

ROOTS was developed by scientists at the Yale School of Forestry and is widely used for seeding, overseeding, reseeding, hydroseeding, installation, transplanting, and the maintenance of all stressed turf, trees, and plants. Send in for simple explanation

of how ROOTS works, and a list

of distributors.

*ROOTS and ironROOTS are trademarks of Soilizer Corporation.



Circle No. 161 on Reader Inquiry Card

PRODUCTS from page 108

Drainage system safe from aeration tools

Lesco, Inc. introduces a new, efficient and economical subsurface drainage system for golf courses, athletic fields, lawns, gardens, retaining walls and other areas.

The Lesco Turf Strip Drain is installed in narrow, 2-inch wide trenches in soil deep enough so that it will not be touched by aeration equipment.

It intercepts water flowing through the root zone, shallow ground water and surface runoff and directs it to a storm water outlet.

Normally installed in a grid pattern to take advantage of ground slopes. the Lesco Turf Strip Drain provides up



to 35 percent more water movement than perforated pipe.

The Turf Strip Drain is composed of a high-density, polyethylene core covered by a tough, non-woven, polypropylene, needlepunched, geotextile fabric.

It is 1-inch thick, four, six or 12 inches high, and is shipped in 100-foot

The core forms a multi-channel structure that provides high flow capacity while the cover fabric permits water penetration from all surfaces. It is resistant to fungus growth and inert to common acids found in soil. It can be used with natural or artificial turf. Circle No. 204 on Reader Inquiry Card

Roll-Around trimmer easy-to-use, efficient

Snapper Power Equipment has introduced the Roll-Around Trimmer, an easy-to-use "wheel" trimmer. The 21cc trimmer is easy to start with its