An increasing number of manufacturers are recognizing the special equipment needs of the golf course superintendent and sports turf manager. They are designing and introducing new products for large, high-traffic turf areas. Find out more about these new products by circling the corresponding numbers on the reader service card. You don't have to convert equipment to meet your needs anymore. Manufacturers have already done it for you.

VEHICLE-TOWED AERATOR



Up to 1.3 acres per hour can be aerated by the GA 60 Fairway Aerator. The vehicle-towed unit has a 60-inch swath with a 2½-x4½-inch coring pattern, at an aerating depth to four inches.

Powered by a 33-hp liquid-cooled engine, the GA 60 is towed behind a Cushman Turf-Truckster vehicle, with a unique rubber-isolated fifth wheel attachment. The fifth wheel hitch is easily removable without tools by pulling one pin and backing off one hand screw.

Standard coring tines for the GA 60 are the new non-plugging, open-back type for Cushman's line of Ryan aerators. Several other tine options are available for the GA 60, from 3/8- to 3/4-inch diameter.

The aerating mechanism features four pairs of tine arms, each protected by a slip clutch. The unit is lowered for operation by the Turf-Truckster hydraulic system, controlled by the operator from the vehicle seat. The aerator engine is started and monitored from the Turf-Truckster seat.

When the tines are lowered, the aerator engine automatically speeds up and the clutch engages to start aeration. Forward aerating speed is regulated by the operator with the vehicle's variable speed governor. When the operator raises the unit, the clutch is automatically disengaged and the aerator engine slows down.

The GA 60 is equipped with high floatation tires, weighs 2,020 lbs., and is sevenfeet-six-inches wide. Height of the unit, in transport position, is 42 inches.

CUSHMAN RYAN

Circle 118 on Postage Free Card

FOUR-WHEEL DRIVE TRACTOR



Built to take on demanding turf and grounds care assignments, the Super Steiner Model 425 is a four-wheel drive tractor powered by a 24-hp, air-cooled Onan P224 Performer engine. A Kubota D950B diesel, 21.5-hp engine is also available for the machine.

Power steering and articulated frame, combined with a low center of gravity and high flotation tires, provide the Model 425 with exceptional maneuverability. Fully hydrostatic, single-lever control allows the operator to choose infinite forward speeds up to 11 mph, and up to eight mph in reverse. Two-speed transaxles provide a choice of "high" or "low" range.

Front mounted attachments offer a wide range of working tools and all of them attach to the Steiner "Quick Hitch." Attachments include rotary mowers up to 72 inches, triplex reel mower, power angle blade, boom mower, power blower, disc edger, snow blower, rotary broom, aerator, and a sand trap blade.

STEINER EQUIPMENT, INC.
Circle 119 on Postage Free Card

SELF-PROPELLED SWEEPER



Clean-up work can be performed quickly and efficiently with the Olathe Model 48 Self-Propelled Sweeper. The unit has a 48-inch sweeping width, and can sweep a variety of wet or dry debris.

The steel-framed Model 48 is offered with a choice of power plants: a 19.9-hp Onan engine, or an 18-hp Briggs & Stratton engine. Its 11/4-cubic-yard hopper is self-dumping, and activated from the operator's seat. Height adjustment is also controlled from the operator's seat.

Options include truck beds, three-point hitch, aerator, seeder and athletic field conditioner, curb broom, hydraulic door opener, and a Donaldson air cleaner.

OLATHE MANUFACTURING INC.

Circle 120 on Postage Free Card

SPRAYING BOOM



A new boom for the Hahn Multi-Pro 418 and Maxi-435 features independent electric controls to raise and lower boom extensions by flipping a switch. Without the operator leaving his seat, the boom height can be adjusted to follow the terrain or avoid obstacles.

The new boom will retro-fit all Hahn work vehicles previously produced. For added flexibility, an optional electric carries 150 feet of hose.

HAHN TURF PRODUCTS
Circle 121 on Postage Free Card

FAIRWAY AERATOR



Capable of aerating up to 50,000 square feet an hour, the Toro Fairway Aerator has a five-foot coring swath. Coring depth is controlled with adjustment brackets on either side of the unit. The coring unit can be easily adjusted down to five inches in depth, with the two-tine head, and down to three inches with the six-tine head.

All gear drive offers added durability to the aerator. Gears are sealed in cases and run in their own oil baths. A durable main gearbox with pick-off gears allows for match-up to virtually all universal tractors. Two pick-off gears are included to match coring head ratio to the tractor.

A choice of two coring patterns are available for the unit: a five-by-six-inch coring pattern with a depth to five inches, and a three-by-3.5-inch coring pattern with a depth to three inches. In addition, coring head stands are provided so the operator can lock up the coring head for transport, changing tires, or servicing.

TORO

Circle 134 on Postage Free Card

LINING MACHINES



Two striping machines for use on athletic fields, parking lots, and streets are available from Smithco.

The Easy Liner is a self-propelled machine powered by a three-hp Briggs & Stratton engine. It produces a line which is adjustable from two to five inches wide, and it has two spray nozzles, one for traffic paint and one for water-base paint. Tank capacity is 12 gallons. For operator riding ability, a sulky attachment is available.

Also powered by a three-hp Briggs & Stratton engine, the Stream Liner is a push-type lining machine. Like the Easy Liner, it produces an adjustable line from two to five inches, has a 12-gallon stainless-steel tank, and two spray nozzles.

SMITHCO

Circle 123 on Postage Free Card

maximize operator visibility. The quick connect/disconnect system allows rapid changing of implements without tools. Features include conveniently located

Features include conveniently located control levers that provide remote adjustment of hydraulically driven implements from the driver's seat. The cutting height of the reel mower can be adjusted from the driver's seat when the reel cutting units are locked in fixed position. With an adjustable valve, the operator can distribute implement weight onto or off of the drive wheels. This hydraulic weight transfer system aids in hill climbing and other high-traction requirements, without the need to raise the cutting units.

BUNTON CO.

Circle 124 on Postage Free Card

MULTI-USE MAINTENANCE TRACTOR



Built for the ground maintenance professional who has a variety of maintenance jobs, the Bunton 530K Multi-Trac is a heavyduty multi-purpose tractor. It can handle various mowing, sweeping, and snow removal chores, as well as many other applications.

The 530K is powered by a 52-hp, watercooled diesel engine. Its transmission has 12 forward speeds to match the speed to the need, from .6 to 18.6 mph, and three reverse speeds. The four-wheel tractor has a front drive axle for superior traction with hydraulically assisted rear steering for ease of operation.

All implements, such as the five- and seven-reel gang mowers, 63-inch sweeeper, 150-inch three-gang flail mower, and the 63-inch snow thrower, are front mounted to

VALVE-IN-HEAD SPRINKLERS



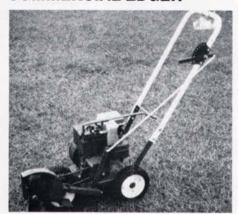
A "family" of valve-in-head sprinklers has been introduced by Buckner. Blending some of the best new technologies with the reliability of the old, the sprinklers combine a cam drive sprinkler and piston valve into a compact package of high-tech plastics, bronze, and stainless steel.

Nozzle pressure can be adjusted and measured at each sprinkler by means of a Schraeder valve which is mounted on the sprinkler head. All models offer adjustable speed of rotation for syringing of golf greens.

BUCKNER. INC.

Circle 125 on Postage Free Card

COMMERCIAL EDGER



Designed for professional use along driveways, gardens, and other areas, Lesco's four-wheel commercial edger has excellent balance and stability. In addition, its front wheels are adjustable for edging along sidewalks or curbs.

A nine-position lever adjusts edger depth, down to three inches, and engages and disengages the hardened, high-carbon, 9½-inch reversible blade. The edger has full steel deck construction, and is powered by a three-hp, single-cylinder, air-cooled Briggs & Stratton I/C engine with choke and throttle control.

LESCO, INC.

Circle 126 on Postage Free Card

WET OR DRY SWEEPER

The Turf Vac is a sweeper that operates effectively on turf or pavement, wet or dry. It picks up clippings, leaves, trash, broken glass, sand, cans, and other debris. Both tow-type and self-propelled models are available.

This sweeper removes material from turf and pavement that only a vacuum could remove, and with no disturbance to either one, because all debris removal is by air only.

For extra assurance of damage-free operation, there is an adjustable scoop with rub-



ber apron to prevent turf injury or chipping hard surfaces.

The sweeper features ground dump and hydraulic dump; a hand intake hose (six inches by ten feet available); and a hard surface filter attachment. Multiple sweeping widths range from four to 30 feet. With no brushes to wear out, the Turf Vac keeps maintenance costs low.

TURF VAC CORPORATION
Circle 127 on Postage Free Card

RIDE A WALKER

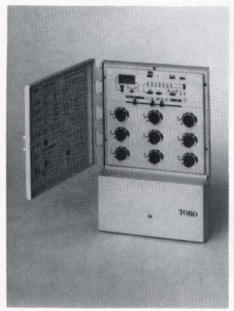
Discover Fast, Competitive, Profitable Mowing



Most commercial mowing operations are using walk-behind mowers because they have concluded no rider mower is compact or maneuverable enough to mow landscaped areas. Now maintenance operators all across the country are discovering the compact, maneuverable *Mid-Size Walker Mower* fits their job and saves labor (usually cuts labor 1/2). The labor saving *Walker* looks good whether your business is trying to produce profit or is operating on a budget. Write or call for a free brochure. Ask for a demonstration.

Walker Manufacturing Company, 1839 East Harmony Road, Ft. Collins, CO 80525 • 1-800-777-0356

USER-FRIENDLY CONTROLLERS



Vision I controllers are precisionengineered, yet simple to operate. Settings appear in the easy-to-read LCD as they're being made, eliminating guesswork. The LCD also lets the user know which station is operating, and how much time remains. The entire program can be read at a glance. In case of a power outage, the program is saved with a battery back-up.

When the the forecast calls for rain, or when the operator needs to interrupt the watering cycle for any reason, the unit's unique Watering Delay allows the user to turn off the system temporarily for one to four days. A blinking light designates how many "delay" days remain, and restart is automatic.

Vision I controllers are available in six, nine, and 12-station models. They offer internal or 14-day programming, three watering start times, and one- to 90-minute, or ten-minute to nine-hour, station run times.

THE TORO COMPANY - IRRIGATION DIVISION
Circle 129 on Postage Free Card

WALK-BEHIND SPRAYER

Manufactured by Wheel Spray Corp., the WS-490 Greens Wheelie is a liquid chemical spreader with a unique ground-driven pumping system. This model features large, easy-to-push pneumatic-type rubber tires and a thick-walled ten-gallon tank with a wide mouth lid for easy filling and cleaning.



The spreader is used to apply liquid fertilizers, herbicides, fungicides, insecticides, and growth regulators. Its twin wheel pumps spray a six-foot-wide fan of solution, with an overlap at the center, at a rate of 1,000 square feet per gallon.

Chemical applications are relatively unchanged by the speed at which the sprayer is pushed. The faster it is pushed, the faster it pumps. When the operator stops, the sprayer stops pumping. The operator controls the shut-off valves from the handle grips whenever spray nozzles are used independently.

WHEEL SPRAY CORP.
Circle 130 on Postage Free Card

FIELD STENCILS



Newstripe, Inc., has expanded its capability to design and manufacture stencils for marking athletic fields and other turf areas.

Standard applications include logos, numbers and letters. Newstripe has also introduced six-foot-high stencils which produce highly-visible block-style letters for the entire alphabet.

All Newstripe stencils are cut from 1/8inch thick PolyTough, a durable plastic material to which paint will not stick.

NEWSTRIPE, INC.

Circle 128 on Postage Free Card

TRENCHER



Trenches six to 12 inches wide can be dug to a depth of 63 inches with the Ditch Witch Model 3500 all-hydraulic trencher. The Model 3500 also has a 64-inch-wide, four-way (six-way optional) backfill blade, designed to roll, rather than push, spoil into a trench for easy, efficient backfilling.

Powered by a 35-hp, Deutz F3L 1011 air-cooled engine, the Model 3500 trencher has a direct hydraulic digging chain drive, four-wheel drive powertrain with infinitely variable speed control, and a large-capacity hydraulic oil cooler featuring an oil shuttle valve to maximize power at the digging chain. For fast, clean oil changes, the 3500 features an easy-access remote engine oil drain.

For added versatility, the 3500 can be equipped with a Ditch Witch A222 frontmounted, five-foot utility backhoe. It can also be equipped with a Ditch Witch dual-positioning digging attachment for offset or center-line trenching, as well as a Roto Witch hydraulic boring unit.

Controls for the trencher are color-coded and shaped to indicate their function. Ground speed is controlled by a foot throttle

THE CHARLES MACHINE WORKS, INC.
Circle 131 on Postage Free Card

FAIRWAY CONDITIONER



Jacobsen offers the Turf Groomer fairway conditioner, which has a large front roller and thick cutting blades for greater strength and durability. Two blade spacings are available. Its drive system has a tough, one-inch drive belt that is protected from debris by a sealed housing. The cover is easily removed for inspections and adjustments.

A quick, up/down blade adjuster raises or lowers the knives up 3/8-inch, in 1/8-inch increments, to quickly raise the blades to skip grooming. A micro-depth adjustment dial fine tunes cutting heights without tools, and anti-scalp wheels prevent marking on undulating turf.

Both the Turf Groomer fairway conditioner and previously introduced Turf Groomer greens conditioner are available for Jacobsen's Greens King IV triplex greensmower and LF-100 fairway mower. Turf Groomer models are also available for Jacobsen's 19- and 22-inch walk-behind greensmowers.

JACOBSEN

Circle 122 on Postage Free Card

TURF VACUUM



With its huge pickup suction head and high capacity, the Brouwer-Vac provides a

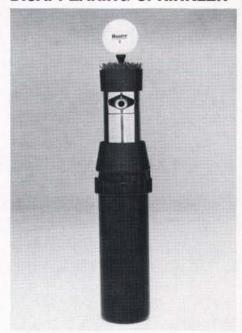
fast, economical, reliable, and efficient method of cleaning turf and hard surface areas. The optional Vac-Hose extension gives added versatility allowing easy cleanup in hard-to-reach areas such as around flower beds, culverts, trees, ditches, and fences.

For fast and efficient unloading, the Brouwer-Vac has a hydraulic conveyor. The unit features fingertip controls. It is PTO driven, requiring only a standard, 35-to 40-hp tractor.

BROUWER TURF EQUIPMENT LIMITED

Circle 132 on Postage Free Card

DISAPPEARING SPRINKLER



A plug of living sod, not a plastic or metal cover, conceals and protects Hunter's I-44 Sod Cup sprinkler when retracted. It is designed for moderate to high-capacity usage on golf courses, playing fields and other public areas, and has been extensively field-tested at the PGA West Golf Course

The Sod Cup features an adjustable discharge rate from 6.5 gpm to 25.8 gpm within a radius range of 45 to 67 feet. It also includes an interchangeable nozzle/stator set with each head. The I-44 is available in 17 fixed arcs and a full circle.

Vandal-protection features include a clutch-protected drive system. All Sod Cups come with Hunter's five-year unconditional, over-the-counter warranty.

HUNTER INDUSTRIES

Circle 133 on Postage Free Card



Make off-colored grass as green as early summer grass with Tru-Green Grass Paint. Tru-Green is easy to use and perfect for troublesome areas on athletic fields, golf courses and lawns. Tru-Green is the patented, water soluble grass paint specially formulated for use with conventional liquid sprayers. Tru-Green, the low cost, low maintenance way to make dormant, sparse or drought damaged grass green again.



REGAL CHEMICAL COMPANY P.O. Box 900 • Alpharetta, GA 30201

Phone: 404-475-4837 Toll Free: 1-800-621-5208

Circle 112 on Postage Free Card

LOW ANGLE ROTORS



Rain Bird's R-50 Low Angle rotor with "Quick-Change" nozzles provides an 11-degree angle of trajectory. The superior wind resistance offered by this low angle, plus a radius capable of being reduced to 21 feet, make the rotor ideal for slopes, small lawns, and other areas where there is a concern for minimizing wind drift and evaporation.

The Quick-Change configuration makes the nozzles on the R-50LA easy to change. A regular, flat-head screwdriver is the only tool required. Color-coded retainers and flow bushings simply snap in and out. A groove in the color-coded nozzle makes it easy to push out, eliminating any chance of damage and making the nozzle reusable. The rotor's stainless-steel adjustment screw can also be adjusted with a screwdriver.

The R-50LA is available in standard, commercial, and shrub models. Because the low angle of trajectory is controlled by the nozzle housing, the nozzles are interchangeable with all other R-50 MPR nozzles, creating a complete low-angle family (1.5, two, three, four, and six).

RAIN BIRD

Circle 135 on Postage Free Card

SURFACE CONDITIONER



For levelling and restoring hard porous surfaces such as baseball infields and run-

ning tracks, the Gordon Bannerman Sports Turf Equipment has introduced the tractor-pulled Truplay unit. This simple machine is actually five tools in one. For finishing work, it has a spring-tooth rake, lute leveller, roller, and brush. The fifth tool is a heavy-toothed grader-type blade for use on badly neglected diamonds in need of total surface renovation.

With the Truplay, one operator can quickly locate high and low spots, and move material from one spot to another to correct them. The machine can shape a pitcher's mound, and according to the company, establish a perfect slope all around almost as easily as mowing grass in the outfield.

GORDON BANNERMAN SPORT TURF EQUIPMENT

Circle 136 on Postage Free Card

INJECTION SYSTEMS



Lesco's Microfeeder Injection Systems are designed to microfeed golf courses, parks, cemeteries, nurseries, athletic fields, and other large, irrigated turfgrass areas by providing frequent, low-rate product application. They can be used to apply fertilizers, micronutrients, and surfactants through an irrigation system.

All four systems utilize diaphragm pumps ranging from 3.4 gph at 142 psi to 41 gph at 142 psi. Three of the systems have flow meters and electronic microprocessors to accurately vary the pump rate and provide constant water-to-nutrient or water-to-surface ratios.

Model 340 provides a constant flow of

material and is for use with flow rates of 1,000 gpm or less. Model 345 is also for use with flow rates of 1,000 gpm or less. It is equipped with the same pump as the Model 340, but also includes a microprocessor and an analog flow meter which displays the water flow rate, total irrrigation water used, and permits calculation of the amount of product used.

LESCO. INC.

Circle 138 on Postage Free Card

TRACTOR-MOUNTED EQUIPMENT SYSTEM



With its two quick-release couplers and hydraulically powered by a tractor, the Modus T Mainframe System can accommodate a variety of tractor-pulled turf care equipment. Tool options include a mole plough, topdresser, athletic field conditioner, a sweeper (verti-cut or flail head are also optional), an athletic field conditioner, and a scarcifier.

The system provides constant, even pressure without the use of heavy weights. Tool can be changed and picked up easily.

MODUS T SYSTEMS LTD.

Circle 139 on Postage Free Card

LINE-MARKING MATERIAL

A line-marking material that is reportedly completely safe and unable to hurt a player's skin or eyes has been developed by Georgia Marble Company. Plus 5, which is also used in foods and cosmetics, is made from pure calcium carbonate (pulverized marble).

The finely ground powder flows freely for easy application, and it doesn't easily clog in applicator machines. Since the product is made from white crystalline marble, it makes a brilliant, well defined line.

GEORGIA MARBLE COMPANY

Circle 140 on Postage Free Card

WALKER MOWER IMPROVEMENTS



Walker Manfufacturing Company has annouced that several improvements and refinements have been added to its zeroturning radius, commercial rider mower for 1990.

For smoother operation, the mower's Kohler engine has an additional balancing gear, and its air intake pre-cleaner is easily serviced with a new glass jar dust collector. The door frame of the GHS grass catcher is made of heavier steel for increased durability.

Molded plastic fans have been added to improve hydrostatic transmission cooling. In addition, a new round shoulder tire design for the main drive tires features scuff resistance on turf and better traction.

WALKER MANUFACTURING COMPANY Circle 141 on Postage Free Card

SPRINKLER HOUSING



The Eagle is a two-part, universal sprinkler housing from American Irrigation Repair & Supply. Consisting of a base and bell, it can be used with any two, four, or eight-hole sealamatic (SAM) bearing guide Rain Bird sprinkler, as well as some Weathermatic sprinklers.

Constructed of ultra-high-molecular-

weight-polyethylene (UHMW), the housing is virtually indestructible. In addition, the base of the unit has stainless-steel inserts which prevent the fitting from rust and corrosion.

A soft, coated lid for sports field applications and a custom check valve have been developed for the Eagle. The lid features "memory," which means that should it be hit by a piece of equipment, in most cases it will return to its original shape without breaking of leaving sharp edges. The custom check valve stops low end drainage and prevents low pressure flooding.

AMERICAN IRRIGATION REPAIR & SUPPLY
Circle 142 on Postage Free Card

TOPDRESSER



Constructed of tubular steel and zinc annealed sheet metal, the Spread Master topdresser is a tractor-pulled, all-hydraulic drive machine designed for durability.

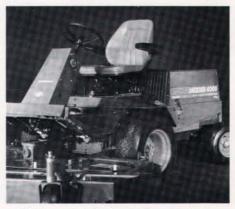
The Spread Master's roller drum eliminates conveyor belt problems. An internal rotating baffle prevents "material surge" at the start of each run.

Independent control of brush speed, drum rotation, and gate opening provide a precise rate of application. For easy filling with a front-end loader, the Spread Master has a flared top.

GREENCARE INTERNATIONAL
Circle 143 on Postage Free Card

ROTARY MOWER

The Jaguar 4000 series tractor is a premium featured machine incorporating the latest in rotary mowing technology. Mowing decks of either 61 or 72 inches are available. The 74-inch deck has a deepdraft design which helps assure that all clippings are discharged out the chute, minimizing unsightly clumps.



Single-pedal hydrostatic control, standard on the Jaguar 4000, controls the machine's forward and reverse movements. Automatic differential lock is available on two models, and reduces wheel slippage and turf damage.

Four different engines are available for the machine: 17- or 23-hp liquid-cooled Mitsubishi diesel engines, a 24-hp air-cooled Onan gasoline engine, or a 27-hp liquidcooled Mitsubishi gasoline engine.

RANSOMES, INC.

Circle 144 on Postage Free Card

HYDRAULIC REEL MOWERS



Featuring a self-contained hydraulic system powered by 540-rpm PTO drive, the 303 and 305 hydraulic reel mowers from John Deere provide an efficient, high-quality cut. Each has a large hydraulic tank with a full-flow filtration system to help keep its oil clean and cool.

On open ground, the three-reel 303 delivers an 86-inch cut. The five-gang 305 delivers a wide, 142-inch cut. Cushioned hydraulic cylinders help protect each unit during raising and lowering.

The 303 requires a 15-30-hp PTO tractor with selective valves. The 305 needs a PTO tractor that can deliver 20-45 hp.

JOHN DEERE

Circle 145 on Postage Free Card