SHOW CASE

Riding equipment saves time on the golf course

"We average about 60,000 rounds a season at Dwan Golf Course," notes Arnie Bodhaine, superintendent of golf for the city of Bloomington, Minn. "Hyland Greens gets about 75,000 rounds each year."

Dwan is an 18-hole, par-68 course,



Roughs are mowed with Cushman out-front rotary mowers. They cut faster and better, according to superintendent Arnie Bodhaine.

Hyland Greens is two 9-hole, par-3 courses.

The high use rates keep Bodhaine's crews hopping. One thing that has proven to be a big time-saver was the addition two years ago of a Cushman Core

Harvester attachment.

Bodhaine says. "With speed up work in wet weather. three Rvan Greensaire aerators, two Cushman Top Dressers and the Core Harvester, we can knock out all 18 greens in about 11 hours. We aerate, remove the plugs, top dress, fertilize, water in, and we're ready for golf again."

Bodhaine reduces tee aeration time by using a Ryan GA 30 riding aerator, which is also used on traffic areas and



"It cuts our greens The Ryan GA 30 aerator saves time on tees, aeration time in half," traffic areas and approaches. Non-coring tines

> approaches, and a new Fifth Wheel Cushman GA 60 aerator for the bluegrass fairways.

> Greens and tees are clipped with reel mowers, but Bodhaine now uses out-front rotary mowers more often in roughs.

> "The Cushman Front Lines do a better job in the taller grass," he says. "With their maneuverability, rough mowing is easier and faster."

For Cushman and Ryan information, Circle No. 191 on Reader Inquiry Card

OWEASE

Irrigation design software is more powerful, efficient

RainCad irrigation design software version 2.0 from Rain Bird now has more power and functionality with greater ease

The new program increases re-drawing speed by 300 percent.

Keyboard interface has been substantially reduced and replaced with simple clicks of the "mouse" control.

Speed has been boosted, and enhanced keyboard interface cuts drawing time more than 30 percent over version 1.0, says Rain

The Version 2.0 now has cost estimating capability plus Material Take-off functions. It also allows the user to build customized Tied-Assemblies, resulting in a "fittings-level" material take-off.

Other enhancements include more automation of sprinkler head layouts. the addition of 300 more customizable symbols, 20 points of connection, 40 separate controllers, 3000 valves per drawing page and more irrigation equipment choices.

Circle No. 192 on Reader Inquiry Card

Surface spray aerator with interchangeable patterns

Otterbine's Concept2 series aerators feature four different interchangeable spray patterns: Sunburst; Phoenix2, which is a two-tiered pattern; Rocket2, a geyserlike pattern and High Volume2, a powerful aeration unit.

Otterbine spray aerators keep ponds

and waterways naturally clear of foul odors, aquatic weeds and algae.

Rock covers and lighting packages are

Motors are energy-efficient and built to last.

All systems are safety tested and approved as a package by ETL.

Circle No. 193 on Reader Inquiry Card

Engines built for variety in construction, turf industries

Kawasaki's FA engine series' side-valve design gives the engines a compact look.

The four engines in the line-the FA76D, FA130D, FA210D and FA210Vrange in size from 76cc to 207cc, with output ranging from 1.7 to 5.2 hp.

continued on page 92

PRODUCT

PRODUCTS from page 88

FA76D:

- moderately-priced four-cycle engine with 1.7 hp and horizontal power output shaft;
- recoil starter, splash lubrication, electronic ignition and mechanical governor;
- a low-oil shut-off system prevents engine damage.

FA130D:

- 3.1 hp, with a single-cylinder, fourstroke, air-cooled engine;
- horizontal shaft design, with recoil starter, splash type lubrication, electronic ignition and mechanical governor.

FA210D and FA210V:

- both are 207cc air-cooled, 5.2 hp engines;
- the FA210D has a horizontal power output shaft, the FA210V a vertical;

Kawasaki says these two are ideal for new equipment or as replacements.

Circle No. 194 on Reader Inquiry Card

Engine series features carburetor enhancement

Kohler Co.'s Command Pro Series of 11, 12.5 and 14 hp horizontal and vertical shaft engines are ideal power sources for commercial turf, construction and indus-



trial equipment.

These engines feature Kohler's Smart-Choke system for one-pull starts.

Smart-Choke is a self-relieving choke carburetor that assures faster starts, smooth acceleration and instant response to load variations, while eliminating over-

choking.

A high-inertia flywheel also adds to quicker starts, smoother idling and provides greater rotational force for superior torque.

Kohler says further refinements of it's automatic compression release also means easy starting.

Kohler Command engines have hydraulic valve lifters, the only engine to do so, says the company.

This reduces valve train noice and eliminates the need

for valve adjustment. A mechanical governor maintains contant RPM.

Circle No. 195 on Reader Inquiry Card

Spray system/trailer match saves you time and money

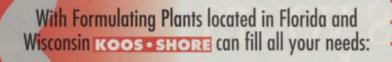
Rich Manufacturing of Indianapolis offers a new concept for the full-service lawn care company.

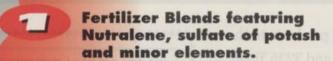
The R1600DX integrates a custom spray system onto a custom trailer to provide an all-in-one solution to increase productivity and lower overhead.

The combination gives you the power to apply chemical applications at the same time routine mowing is being performed.



The advantage of being able to apply weed and insect controls at all times also reduces costly service calls and adds to





Fertilizer Blends formulated with pesticides from an extended list of turf labels.

Plus...

Mini Size homogeneous fertilizer products for the golf course.

11111

When your grass is on the line call:



Circle No. 107 on Reader Inquiry Card

RODUCT REVIEW

customer satisfaction.

Each tank can be operated independently so that different products can be carried at the same time, Rich Manufacturing notes.

The location of the spray tanks provides plenty of space for mowing equipment (up to 72-inch wide decks).

More storage is available in the front tray for trimmers, power blowers, gas cans or tools.

Circle No. 196 on Reader Inquiry Card

Improved efficacy claims for herbicides used with performance enhancer

Terra International, Inc. has added Riverside AMS Plus to its Riverside product line-up.

AMS Plus enhances herbicide, defoliant and desiccant performance by modifying factors such as pH and hard water. It is a liquid ammonium sulfate activator with phosphate ester of poly-glycolethers, a blend of ammonium salts, and formulation aids

AMS is recommended for use with:

- Diquat,
- Endothal
- Gramoxone, MSMA
 - Jury.
- Roundup, Roundup RT, and
- others requiring an ammonium sulfate activator.

Circle No. 197 on Reader Inquiry Card

Utility vehicle carries 1000 lbs., handles rough terrain

Haul Master's utility vehicle is powered by a 4-cycle, 16-hp Briggs & Stratton

vers easily in tight spaces and narow areas.

Equipped with a heavy-duty trans-axle with full differential and differential lock, the Haul Master handles rough terrain

> while its heavy-duty housing seals out sand, dirt, salt water and other corrosives.

> Its wide, low-pressure tires provide good traction and will not damage turf.

> The vehicle seats two and hits a top speed of 20 mph.

> Tilting dump box is more than 48 inches wide and 40 inches long.

Circle No. 199 on **Reader Inquiry Card**



engine.

The UV has a 100-lb. load capacity and delivers the power needed for industrial jobs, landscape management, farm work and recreation.

The unit is good for transporting cargo or supplies, or reaching offsite locales.

The mult-purpose vehicle has a short turning radius, and maneu-

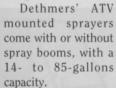


Compact spray system for lawn work

Dethmers Manufacturing Company of Boyden, Ia. makes a "Spray

Team" for all lawn and garden spraying equiopment. Sprayers come in a variety of

> sizes; from five to 150 gallons.



The rear mounted sprayer can be used for larger jobs.

A large selection of application pumps is available.

Circle No. 198 on **Reader Inquiry Card**



Go anywhere, do anything

rolling after 30 years in the green indus-

Standard features include:

- turf chassis with pin disconnect
- heavy-duty carbon steel channel fram boxed in critical areas;

Other optional and standard implements and attachments are available to the green industry professional to increase the versatility of the vehicle, such as top dressers, sprayers, Core Harvester, flatbed, short box and carrier set

The Turf Truckster is rated at 2,600 lbs., including payload, bed and driver.

Circle No. 200 on Reader Inquiry Card



SHOWCASE

REVIEW

This makes light hauling jobs easy

The G-11 Yamahauler is Yamaha Golf Cars' rugged utility vehicle designed to handle almost any light hauling job.

The company calls the Yamahauler G-11 one of the most versatile and reliable vehicles on the market.

The drop-side utility box permits almost immediate removal of both its sides and tailgate for flat-bed hauling.

The vehicle has a 4-by-4 foot bed, 13.4 cu. ft. of space and a 500-lb. capacity.



A frame mounted trailer hitch with a towing capacity of 150 lbs. is optional.

The Yamahauler is powered by a Yamaha 8.6 hp, four-stroke, overhead valve engine. Maintenance-free, transistor-controlled ignition ensures reliable operation. Bench seats raise to provide easy access to the engine.

Circle No. 201 on Reader Inquiry Card

These vehicles can't 'take it easy'

The Kawasaki Mule utility vehicles are well named. They refuse to quit when pushed to the limit.

The Mule 500, shown above right, is powered by a 286cc four-stroke gasoline engine.

The sturdy steel frame encloses a 36-by-44-inch cargo bed.

The Mule 500 has a 660-lb. vehicle load capacity. An additional 900-lb. towing capacity can be tapped when the Mule is equipped with an optional trailer hitch. The 500 has a continuously variable belt-driven automatic transmission.

Torque is transmitted through a pair of pulleys connected by a V-belt, which lessens the workload on the driver and maximizes the efficiency of the small-displacement engine.

The Mule 1000, below right, has a tilting cargo bed and a payload capacity of 1000 lbs.

The 1000 is powered by a 454cc liquid-cooled, double overhead camshaft, eight-valve, four-stroke, counterbalanced, twin cylinder gas engine.

Circle No. 202 on Reader Inquiry
Card





Safer fuel storage with newly-certified 5-gal. transporting container

Justrite Manufacturing Company, Des Plaines, Ill., announces its brand new, twoand-a-half gallon transport/dispensing



cans, models 10540/10541.

Testing of the new containers was completed in early November 1993, when the UN certification was granted.

UN approval for the containers means easier handling and more convenient dispensing than is possible when working with a heavier five gallon can.

Justrite believes the design meets the operating and spill-proof requirements needed when a container is being transported to a job, while offering the added protection of a Standard UL listed, FM approved safety can.

Circle No. 203 on Reader Inquiry Card

Utility vehicle has a 2000 lbs. capacity, 20 cu. ft.

Columbia ParCar's Utilitruck EU2000-XB is built for heavy duty material handling, landscaping, agriculture, lawn care, motels, airports and other utility uses.

The EU2000XB has more than 20 cu. ft. of cargo storage space with a payload capacity up to 2000 lbs. The narrow body design provides easy maneuverability in tight areas, and the rear axle is located directly under the payload area for added stability.

Circle No. 204 on Reader Inquiry Card

SHOWEASE

REVIEW

Lawn and garden series adapts to equipment lines

Put the versatility and maneuverability of your ATV to work by adding a Demco ATV Sprayer, custom-designed to fit Deere, Commuter, Avenger and other ATVs.

You get a 55-gallon polyethylene tank with molded in-sight gauge, and five-inch fillwell with baffle lid:

- anti-vortex outlet:
- single jet agitator
- in-line tank shutoff valve:
- in-line strainer:
- 3-hp Briggs & Stratton engine.
- 3-way boom control with pressure gauge;
- on-off agitation valve and on-off hand gun valve;
 - built-in hose wrap-up
 - adjustable boom height

Circle No. 205 on Reader Inquiry Card

Sprayer line holds up to 100 gallons

Ritchie Bestway Commercial markets a varied line of Tri-way sprayers.

The Tri-way can be fitted with a 30, 50 or 100-gallon sprayer tank, and it can be transported three ways.

The standard package includes a skid mount, or other options:

- a 3-pt. with a standard category one 3-pt;
- LaBarge Attachment Plus fork set:
- a trailer kit that can be installed in minutes.

Every Tri-way sprayer is constructed from heavy steel with a baked-on powdercoated finish.

There are also several attachments available,

including 40-inch, 120-inch and 6mm booms, hose reel, swivel kit and handgun with adjustable tip and swivel.

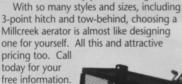
Circle No. 206 on Reader Inquiry Card



Put a Front-Mount Millcreek Aerator on Your Commercial Mower.

Get more production and profitability from your John Deere, Ford, Kubota or Excel Hustler up-front mowers by attaching a front mount Millcreek core plug aerator.

Millcreek aerators have individually-mounted spoon wheels so you can make gentle turns without tearing turf. And our sturdy protective cage increases safety.





- **42**", 63", 84"
- 3-point hitch & tow-behind models
- Light-duty units also
- Individual spoon wheels
- Safety cage included



1-800-879-6507

2617 Stumptown Rd. Bird-in-Hand, PA 17505

Dealer inquiries invited.

Circle No. 108 on Reader Inquiry Card

Edging units install easily, eliminate trimming work

Innovative Concrete Design Corporation has introduced Select Edge Decorative Concrete Edging Units, an



attractive, economical, easy-to-install landscape edging system.

Natural scale, colors and attractive appearance combine to make this edging product a nice blend with any plan.

Circle No. 207 on Reader Inquiry Card

REVIE

Skip pathology lab with portable meters

The pH and conductivity meters from ESD can enable turf managers to make on-the-spot turf diagnoses.

The pH meter, Model 57 is digital, and reads to the .1 pH unit.

The conductivity tester, Model 70DS, provides an analog, dual scale, with ranges from zero to 5,000 micromhos as well as zero to 3,500 ppm.

Both meters are guaranteed for two vears. Electrodes are guaranteed for six months. The units include a meter, electrode, buffer solutions of 4, 7 and 10 for pH only, and a 9-volt battery, as well as instructions and solid carrying case.

Circle No. 208 on Reader Inquiry Card



Grass catcher holds up to four bushels of clippings

Grass Packer by Exalted fits virtually every commercial mower and holds up to four bushels of debris in its high-capacity. heavy duty plastic body that is dent resistant and water proof.

Grass Packer uses both an aerodynamically-designed entrance shoot and tapered cylindrical shape to enhance the air flow and ensure clog-free operation. In addition, Grass Packer has large built-in handles and an over-sized cover/hinge assembly for easy carrying and unloading.

The unit is available with a universal mounting bracket. It comes with a oneyear warranty.

Circle No. 209 on Reader Inquiry Card

Power sweepers also offer thatch removal from turf

The Sweepster Power Sweepers not only remove thatch from turf in one pass, but also leaves, pine needles and thatch, Sweepster contends.

The machine can windrow thatch and

debris into piles for easy pick-up with a sweeper that collects thatch in a hopper for dumping later.

Sweepster Power Sweepers have flexible polypropylene bristles. The gentle rotating action of a brush removes debris without damaging the root system. They bend as they pass over uneven surfaces. giving full bristle contact over uneven turf

When used before overseeding, Sweepster notes, the Power Sweeper exposes soil to more sunlight, water and fertilizer. Sweeping turf areas opens the entire area the brush head comes in con-

Circle No. 210 on Reader Inquiry Card

Landscape and irrigation design offered for Windows

Green Thumb Software has a "Windows" version of its landscape design softward, LandDesigner Pro. The computer program enables professional landscape designers to produce comprehensive proposals with full-color plans, plant materials and lists, and detailed cost estimates.

Green Thumb's IrrigatorPro for Windows lets designers quickly produce high-quality irrigation designs, complete with detailed layouts and multiple reporting options.

Circle No. 211 on Reader Inquiry Card

The Bell Canada Enterprises Directory Publishing Group is Compiling

THE MOST COMPLETE SOURCE BOOK FOR THE GOLF INDUSTRY!

- ✓ Over 100 headings with complete listings of manufacturers and suppliers for the golf industry.
- Complete listing of courses and resorts throughout the United States and Canada.
- ✓ Sent free of charge to every golf course superintendent, club manager, and pro throughout the United States and Canada.

For orders or further information call Tom Booher at 1-800-864-2754



PRODUC REVIEW

This primed seed has its own patented process

Whether your concerns are problem areas or getting a golf course into playable condition faster, RediSeed primed seed from Eco Soil Systems enhances seed performances in several ways.

The Solid Matrix Priming (SMP) process, which is patented, actually primes the seed to a point where they are ready to germinate, then "freezes" that condition for up to a year.

According to Eco Soil Systems, the difference between RediSeed and regular seed is that it begins sprouting hours after planting and watering.

Penncross, Pennlinks, SR1020 and Putter bentgrasses are available, along with Sabre Poa trivialis.

Circle No. 212 on Reader Inquiry Card

Finish mowers available in three different models

A new family of high-performance, durable flexwing turf finish mowers designed to meet the challenges of mowing large acreage has been introduced by Woods Equipment Co.

The Turf Batwing Finish Mowers are available in three models: 9144 with a 12foot cutting swath, 9180 with a 15-foot swath and 9204 with a 17-foot swath.

Each Turf Batwing Finish Mower features three cutting decks with a cutting height ranging from 1.5 to 5 inches.

A positive stop, automatic wing lock-up function enables the operator to remain seated in the tractor while locking or releasing the wings from the transport position.

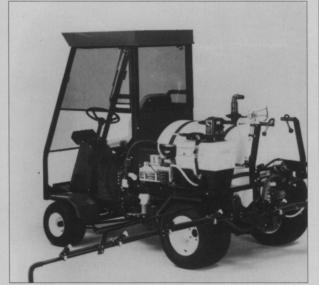
Circle No. 214 on Reader Inquiry Card

Injection system modifications complete, unit ready

The Toro Company has completed improvements to the InJector Pro Chemical Injection System for the Multi Pro 1100, and the vehicle is available for delivery.

The pesticide application system has gone through a year of significant changes since it was first released a year ago. In addition to calibrated, precision chemical application, the InJector Pro now includes a selfcleansing pressure-washing system for total chemical and rinsate clean-up.

"The exclusive design means the Injector Pro always mixes the exact amount of chemicals and adjusts to the chosen application rate," says Kent Hahn, executive vice president of Hahn, Inc.



Customers can choose from a dual-pumping or single-pumping InJector Pro model, depending on need. Both systems hold water and chemicals in separate tanks until moments before application. The console control then automatically monitors and controls the precise amount of chemical regardless of speed.

A self-cleansing washing system cleans injection tanks, and rinsate can then be dispensed onto the turf.

A cab air-flow system keeps possible drift from lingering in the cab.

Circle No. 213 on Reader Inquiry Card

Microscope/camera has many turf applications

RF Inter-Science has a new portable camera-adaptable microscope. This unit provides magnification of 45x and adapts to most 35mm single-lens reflex cameras by means of a simple camera adaptor called Macromate I.

The microscope weighs less than one pound. RF Inter-Science says it's excellent for field work where wide-field viewing and portability are factors like on-site insect identification.

No slide preparation is necessary. The specimen is simply placed on any flat surface, the Macroscope unit placed over it and focused.

Circle No. 215 on Reader Inquiry Card

Transpiration minimizer holds moisture in plant

Aquatrols introduces its new LeafShield anti-transpirant. When applied to foliage, LeafShield dries to a thin flexible waxy layer that holds moisture in the leaves and reduces transpiration stress when there is insufficuent moisture absorption by plant roots.

LeafShield is recommended when transplanting and transporting plants subject to moisture stress, and as a protectant against desiccating weather conditions.

It comes packaged in 4x1-gallon, 2.5x5gallon and 5-gallon containers.

Circle No. 216 on Reader Inquiry Card

Athletic field absorbent cuts labor and storage

Rain Check athletic field absorbent absorbs 500 percent more water than clay, says its maker, Pioneer Manufacturing Co. It is also said to cut labor and storage costs up to 80 percent.

Manufactured of all organic materials, Rain Check is completely biodegradable. It goes to work the instant it's applied, and leaves no detectable residue to be cleaned up later.

Rain Check can be applied easily, and spread evenly to cover up all wet areas. You allow it to stand for a few minutes. then rake until level.

Circle No. 217 on Reader Inquiry Card