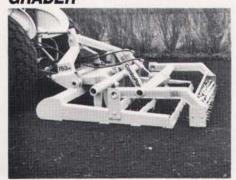
PRODUCT UPDATE

TRACTOR-ATTACHED GRADER



The MT/Comboplane enables sports turf managers to scrape, scarify, level and finish with one unit. Designed for three-point hitch tractors, the unit leaves a fine, smooth grade on virtually any type of soil.

The Comboplane consists of a front scraper with side soil retainers that controls grade. Behind the scraper is an hydraulically-controlled scarifier to penetrate and lossen soil. Following the scarifier are three planning beams for leveling. The final finishing attachments are optional.

Made of heavy gauge steel, the comboplanes come in three widths, 5, 6½ and 8-feet. One pass of the comboplane is the equivalent of four passes with separate units. Pivotal scarifiers allow scarifying and grading in one direction and grading in reverse, without raising the scarifier assembly.

METROTURF, INC.

Circle 151 on Postage Free Card

DECORATIVE AERATOR



The lake fountain aerator improves the appearance of lakes and ponds in a another way with Otter-Rock. Barebo has taken the floating surface pump unit and disguised it as a group of rocks jutting up through the surface. The fountain, which creates tur-

bulence and oxygen exchange in potentially stagnant ponds, can be anchored at any location in a lake.

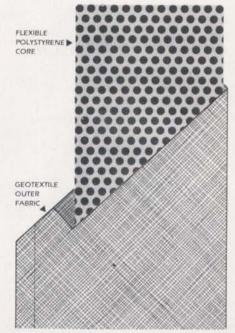
The only installation required is a waterproof power cable which leads from shore to the Otter-Rock. For night enjoyment, up to six Fountain-Glo lights can be incorporated into the floating unit.

Otterbine aerators are designed to control the biological problems of algae buildup and unpleasant aquatic odors. The fountain-like spray action complements the appearance of recreational facilities, golf courses, and residential developments.

BAREBO, INC.

Circle 132 on Postage Free Card

THIN DRAIN FOR TURF



A narrow two-inch-wide trench is all that is needed to install Turf Drain, a prefabricated composite drainage line for inadequately drained turf areas. Developed by two engineers as a replacement for French drains, the thin polystyrene core is surrounded by a geotextile fabric. Hydrostatic pressure forces water through the filter fabric into the void created by the waffle-like plastic form. As long as the line is provided a one percent slope, the silt-free water flows freely to the outlet point.

Gravel backfill is not required; sand or native soil is used to backfill the narrow trenches. Turf will grow back over the twoinch surface cut without the need for sodding. This enables a turf manager to correct drainage problems with the least disruption to the turf and with less labor.

TURF DRAINAGE CO. OF AMERICA Circle 134 on Postage Free Card

POWERED RAKE



Smaller tractors with 15 or more horsepower can operate Glenmac's five-foot double roller landscape rake. The PTO-driven unit pulverizes seed beds or base paths as it removes rocks, roots, and trash. The result is a soft open surface free of stones and debris. All debris is windrowed by the rake for easy removal.

The five-foot wide version was adapted from the company's eight-foot wide model for larger areas and larger tractors.

GLENMAC, HARLEY DIV.

Circle 169 on Postage Free Card

MOISTURE SENSING CONTROLLER

You don't have to leave the controller to make field adjustments or install probes at valve locations with Griswold's Scanex. All moisture monitoring information and adjustments can be made at the controller.

The electronic sensors are stainless steel alloy probes connected to the controller with two #14 UF direct burial irrigation wires. Low voltage AC signals provide the controller with the necessary information on root zone moisture levels.

The Scanex eliminates the need to manually calculate evapotranspiration and precipitation rates and the other guesswork associated with some control systems. It also prevents irrigation during rain unless indicated by the sensors.

The manufacturer estimates savings of 50 percent per year on water and labor. Harmful overwatering and waste are stopped as soon as the Scanex is turned on.

GRISWOLD CONTROLS

Circle 126 on Postage Free Card

PRODUCT UPDATE

BROADLEAF HERBICIDE



Tough-to-control broadleaf weeds in athletic fields and golf courses are effectively eliminated with a new amine formulation of Super D Weedone from Union Carbide. The combination of 2,4-D and dicamba, both as diethanolamine salts, when applied to established turf, will control more than 46 broadleaf weed species, including dandelion, wild garlic and thistles.

The new herbicide is packaged in one, 2.5, and 55 gallon size containers to meet the needs of managers of both large and small acreage. Amine formulations are less prone to drift than ester formulations.

UNION CARBIDE

Circle 249 on Postage Free Card

INSTITUTIONAL SPRINKLERS

The new "I" Series of sprinklers from Hunter Industries is the culmination of years of sprinkler design experience. The gear drive is sealed in oil for vibration-free, quiet operation. Positive stops and fixed arcs keep sprinkler nozzles pointed only toward land-scaping. A slip clutch reduces the chance of damage to the drive mechanism.

Vandals are thwarted by low visibility, small surface diameter and a locking cap with a stainless steel set screw. Each head is protected by a factory-installed heavy-duty, impact-resistant rubber cover. Low head drainage is halted with a drain check valve.

Backed up with a five-year unconditional warrantee, the "I" Series offers a variety of nozzles included with each sprinkler and a wide range of arcs from 30 to 360 degrees. Each head pops up four inches to clear grasses and groundcovers.

HUNTER INDUSTRIES

Circle 200 on Postage Free Card

PULL-BEHIND AERATORS



Mobility, speed, and ease of attachment and detachment are features of pull-behind aerators from Terracare Products Co. These units, used individually or pulled as a gang, can aerate turf anywhere a gang mower can go. The manufacturers claims an entire golf course can be aerated in two days.

A battery-powered hydraulic pump raises and lowers the tines for use and transport. The aeration holes are spaced 3 1/2 to 4 1/2 inches apart. Twenty tines are attached to each disc. Three models are available ranging from seven to 16 discs. Each disc rotates on needle bearings on a 1 3/4 inch shaft. The models aerate a swath from 22 inches to five feet in width.

Attachment and detachment involve two pins and a wire harness. Units weigh from 650 to 1450 lbs.

TERRACARE PRODUCTS CO.

Circle 122 on Postage Free Card

FOOTBALL FIELD COVER

Rain or snow shouldn't cause cancellation of events if you have field or rain covers from Covermaster. The tough, yet lightweight rain cover can help warm up a field during cold weather or keep rain from turning the field into a mud bowl.



To battle winter temperatures use the covers to form a pocket in which to blow warm air underneath or let the sun's rays warm the cover. Field covers by Covermaster are heavy-duty protection for natural or artificial turf. They have been used to cover fields for rock concerts, mud bogs, and rodeos. They are waterproof and resist cigarette burns. They resist puncture by heels, chair legs, or other sharp objects. The rain covers are waranteed against materials and workmanship for one year, field covers for two years.

COVERMASTER INC.

Circle 228 on Postage Free Card



PRODUCT UPDATE

PERSONAL GOLF CAR



Providing the usefulness of a golf car at a price a golfer or retired individual can afford is the mission of the new Americar by E-Z-Go. Two models have been designed for personal use in retirement and resort communities as well as on the golf course, They are built to the same standards as E-Z-Go's fleet golf cars.

The two-seat Spirit and the four-seat Liberty feature as standard equipment dual headlights, dual tail and brake lights, horn and front bumper. Options include sun canopy, windshield, battery recharger, charge indicator, sweater basket, wheel covers, turn signals, hour meter and a choice of tires.

The electric cars are ideal for the individual in contained communities who needs a convenient form of short-distance transportation, claims Dave Johnson, director of marketing.

E-Z-GO/TEXTRON

Circle 116 on Postage Free Card

MOBILE STANDS



Seating for special games or golf tournaments is simplified by Stadiums Unlimited. Trans-Stand and Trans-Stage are easily set up and relocated. The light-weight aluminum units can be towed by any standard vehicle and are licensed for towing over state and federal highways. They can be set up by two people in 30 minutes.

Trans-Stand units are available to seat from 200 to 250 people safely. When folded for transport, they are eight ft. wide. Grounds jacks are used to level the units when unfolded. Side guardrails telescope into position during use.

Trans-Stage is available is sizes from 30 to 40 ft. wide and 24 ft. long. It also has railings and is set up in less than 30 minutes. Both mobile units are constructed of maintenance-free aluminum or hot-dipped galvanized steel. They can be used indoors as well as outdoors.

STADIUMS UNLIMITED

Circle 117 on Postage Free Card

VERSATILE IRRIGATION NETWORK



An IBM XT personal computer is the hub of operation for Toro's new irrigation and landscape network. This central computer coordinates operation of up to 800 satellite controllers for irrigation, lighting, or pumping by two-way communication. Utilizing feedback from satellites and input on weather, geography and agronomics, the Network 8000 can save energy, water, labor and money by adjusting programs for up to 25,600 stations.

The personal computer is programmed to be easy to operate and includes a matrix printer, color monitor and light pen. It can be used for irrigation and business functions simulataneously. The central programmer can operate any station, set the running time, assign it to any program and set up to three repeats for any station.

The stand-alone satellites receive, store and send all commands generated from the central computer. They report back to the central computer key factors such as program status, station failure or changes at the satellite. The solid-state satellites control up to 32 stations, each with up to three

electric valve-in-head solenoids.

The versatility and extra control provided by the Network 8000 allow more precise operation of irrigation and other landscape and business functions.

TORO IRRIGATION DIVISION

Circle 119 on Postage Free Card

MULTI-PURPOSE TRACTOR



Available in large and mid-size models, Bunton's Multi-Trac multi-purpose maintenance tractors are powered in a choice of 52 hp or 22 hp water-cooled diesel engines. The Multi-Tracs feature a quick connect/disconnect system that allows changing of front-mounted implements in minutes, without tools.

General maintenance implement attachments include fork lift, snowthrower, dozer blade, multi-purpose bucket and vacuum sweeper. Turf maintenance implements include seven-, five- and three-gang reel mowers, rotary mowers and flail mower.

Bunton Multi-Tracs are designed for any facility requiring a variety of maintenance functions or year-round maintenance. These include schools, parks, country clubs, sports facilities, military installations, golf courses and industrial complexes.

BUNTON CO.

Circle 120 on Postage Free Card

SLOW FEED LIQUID

Slow release nitrogen can now be applied in liquid form with Fluf. The patented suspension of flowable urea provides continuously even and moderately slow release of nitrogen to turf. It is safe to apply in the summer, is non-burning and will not leach out of the rootzone like other liquid fertilizers. The slow release fertilizer is compatible with most turf pesticides and other fertilizer products. Fluf comes in 2 1/2 gallon containers and 55 gallon drums.

W. A. CLEARY CHEMICAL CORP.

Circle 118 on Postage Free Card

PRODUCT UPDATE

LARGE TOPDRESSER



Uniformly spread up to one inch of any topdressing with the large capacity Turf-Topper from Bannerman Ltd. Powered by a tractor PTO, the unit spreads any combination of sand, loam, peat moss, manure or fertilizer through a floor conveyer and contra-rotating spreader cylinder. The unit holds three cubic yards of material fully loaded. Large flotation tires protect turf from compaction or tire damage.

Any tractor with 25 PTO horsepower can drive the Turf-Topper. The unit weighs 1950 lbs. empty and spreads a six foot swath of material. As little as 1/4-inch of topdressing can be applied.

BANNERMAN LTD.

Circle 115 on Postage Free Card

BACKHOE/LOADER



Five years of research and computeraided engineering preceded the launch of Caterpillar into the backhoe/loader market with the Cat 416. Part of a full line of backhoe loaders, the 416 adds a new dimension to the Caterpillar line of excavating equipment. Engineers concentrated on comfort and sound levels as well as stability, servicability and durability. The operator's compartment is isolation-mounted to the main frame to reduce noise and vibration. Controls and gauges are designed and located for operator convenience.

Extra stability of the 416 is provided by an overcenter backhoe combined with a load-sensing hydraulic system. The backhoe bucket rotates 194 degrees and can dig deep on vertical faces.

A one-piece, welded, integral chassis distributes digging stresses on the frame and not on the drive line. A Perkins 4-236 powers the backhoe loader and a four-speed fully synchronized transmission with torque converter drives it. The 416's hydraulic system provides maximum dig forces at slow speeds without excessive engine lug for nearly 30 percent greater fuel efficiency.

CATERPILLAR

Circle 318 on Postage Free Card

TURF CONTROLLER



Additional flexibility and control are the leading features of three new turf irrigation controllers from Irri-Trol. The MC Series provides solid state accuracy in controlling 12 to 24 stations. The 23-key panel can operate three fully independent programs plus a syringe program. Up to 12 starts per day for up to ten hours and one syringe start for nine minutes are possible with the controllers.

Water budgets can be changed by instructing the controller to either increase or decrease by percentage the watering times on all stations. The display tells the operator the amount of watering time remaining on any station and the total time for all stations. These times can be reduced or increased from one to 255 percent to fit water consumption to budgets.

Stations can be tested individually, by selected station, or as a group. Three models, of 12, 18, and 24 stations, are available now for new systems or updating older systems.

IRRI-TROL MFG. INC.

Circle 319 on Postage Free Card

SPRINKLER CART



Because of its light construction, the Bauer Rainboy Automatic Sprinkler Cart is especially well suited for watering golf courses, playgrounds, football and baseball fields, school and university grounds, parks and cemeteries.

Its large wheels and high efficiency with low water pressure make it an excellent irrigation system for small growers and hobby farmers, helping them save both time and labor.

All moving parts are secured behind protective covers for safe, unattended operation. The retraction speed gauge and turbine efficiency tachometer enable the operator to vary its watering rate to suit existing conditions.

The sprinkler's automatic cart pick-up doubles as a wheelbarrow-style manual transport. Its handy tow hitch and "easy roll" weight-balanced tires make it extremely easy to move and handle with a tractor.

The Rainboy's patented "mini-turbine" drive has proven extremely efficient in low-pressure and low-flow applications. Because there is no open flow discharge, operators can avoid the excessive puddling normally found with bellows drive carts.

BAUER U.S.A.

Circle 320 on Postage Free Card

PRODUCT UPDATE

LIQUID FERTILIZER

A controlled-release liquid fertilizer for turf is now available nationwide called Nitro-26 CRN from Growth Products. The fertilizer was developed in the late 70's specifically for turf applications where no phytotoxicty and a longer nitrogen release are required. It is a true solution containing 80 percent methylene diurea and 20 percent urea and requires no agitation and is stable for more than eight months and at high temperatures. It is compatible with other commonly used turf care chemicals.

GROWTH PRODUCTS

Circle 279 on Postage Free Card

SPRAYABLE SURFLAN

Elanco wants sports turf managers to try their preemergence herbicide Surflan 4AS so much that it will give purchasers spray gear until August 31, 1986. The herbicide can be sprayed over the top of ornamentals to prevent germination of weeds in the planting bed or it can be combined with

Roundup to keep weeds from regrowing in utility areas. One application of Surflan keeps out a broad spectrum of weeds for up to eight months.

A Solo backpack sprayer or Chem-Lawn spray gun will be given to purchasers of 50 gallons, or a Solo Hanjet compression sprayer comes with a purchase of 15 gallons.

The Solo backpack sprayer is equipped with a pressure regulator and a two-nozzle spray boom. It holds four gallons of spray and is manually operated for complete mobility. The Chem-Lawn gun is available with a choice of nozzles for delivery of two to five gallons of spray per minute. The compression sprayer is a hand-pump unit delivering 2-1/2 gallons of spray.

ELANCO PRODUCTS CO.

Circle 280 on Postage Free Card

DIESEL RIDING MOWERS

Longer engine life and a small turning radius are features of this new riding outfront rotary by John Deere. These advancements were announced in September by the company as part of a major move into the professional turf maintenance market.

The F935 packs 22 diesel horsepower from a three-cylinder, liquid- cooled engine for commercial heavy use. The out-front rotary unit cuts a 76-inch swath for fast work on large areas. A third spindle on the trim side enables the mower to leave an uncut circle of less than seven inches without braking.

Deere is also making differential lock standard equipment on all out-front rotaries. Also standard are side-by-side, dualpedal foot control system with cruise control, power steering and hydrostatic transmission.

In addition to the gas and dieselpowered out-front mowers, the company has added sweeper, thatcher, snow blower, and vacuum attachments plus a cab.

JOHN DEERE

Circle 281 on Postage Free Card

SCOREBOARD

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