

GCSAA

"The Golf Course Superintendent and the Changing Times," is the theme of this year's 44th Annual Golf Course Superintendents Assn. of America International Turfgrass Conference and Show to be held January 8 to 12 at the J.B. Hynes Civic Auditorium in Boston.

Welcoming ceremonies and the official opening of the conference will begin Monday morning January 8 with the president of the GCSAA, Robert V. Mitchell, presiding.

The educational assembly will begin Monday afternoon at 1:30 in the main ballroom of the Sheraton-Boston Hotel, headquarters for the convention. Richard W. Malpass, a GCSAA director and superintendent at the Riverside G&CC, Portland, Ore., will chair a session on "Legislative Changes and the Golf Course Superintendent." The "Occupational Safety and Health Act"; "Noise Levels and Golf Maintenance Operations," and "Fertilization Practices and Soil Pollution," are the subjects. A one-hour session Monday afternoon will be devoted to "Superintendent Tournament Responsibilities: Before, During and After." Donald J. Makie, superintendent at Torrey Pines Municipal GC, San Diego, will chair the session. Selected panelists will discuss their experiences.

The educational assemblies continue Tuesday afternoon, after the exhibits open in the auditorium in the morning, with a discussion on "Changes in Putting Green Construction Concepts," chaired by Norman C. Dennehy, superintendent at the Abenaki CC, Rye Beach, N.H. Viewpoints of the United States Golf Assn. Green Section, researchers, builders and architects will be discussed.

"Changes Affecting Turf Management Practices," will be chaired by Allan MacCurrach Jr., superintendent, Chevy Chase CC, Chevy Chase, Md. This is the "technical" session of the conference dealing with bunker maintenance, factors affecting root development and nitrogen fertilization. Two themes that should not be missed in this session deal with the status of mercury fungicides and anti-burning laws.

continued

GCSAA

1. HARLEY-DAVIDSON
2. CUSHMAN
3. CLUB CAR



The fifth educational session Thursday morning is on "Changes in Automatic Irrigation Concepts." Walter J. Wilkie, president of March Irrigation and Supply Company, Muskegon, Mich., will chair the session. Thursday afternoon's session is on "Changes in the Demand for Superintendents." Malcolm I. Taylor, superintendent, Elmendorf Air Force Base GC, Anchorage, Alaska, will be the chairman. An educator, student, club official and superintendent will offer their views on this topic. The final session, Friday morning, is on "Changes and the Thinking Superintendent," chaired by William E. Eckert, superintendent, Maple Bluff CC, Madison, Wis.

Although the topics in all sessions are solid, the one apparent weakness on the agenda appears to be on the time allotted for the Monday afternoon educational session on legislative changes. It is highly unlikely that John J. Spodnik, superintendent, Westfield CC, Westfield Center, Ohio, and a past president of the GCSAA, will be able to cover the highly complex, controversial and important subject of OSHA in only 45 minutes. Spodnik has considerable knowledge on the subject and is an effective speaker, but he just won't have the time for anything but a broad overview. The other topics of this session, noise levels and fertilization practices and soil pollution, each are allotted only 30 minutes and are being presented by Jacobsen and Toro personnel, respectively. This session should have been lengthened for all of Monday afternoon, and there should have been additional speakers on each of the subjects. It is interesting to note that not one Federal or state official will be speaking before the superintendents. These are the people making and implementing policy and

their views should be heard and understood. Minimum wage legislation and union problems and solutions are missing from the agenda also.

The GCSAA is hoping to eclipse last year's attendance mark in Cincinnati of over 4,000 participants. It remains to be seen whether this goal will be realized. The GCSAA should receive some criticism for selecting such an early date, within one week of the end of the Christmas holidays. Also, many superintendents use this convention as a vacation and take their wives. Cold Boston in January may not seem like their idea of a vacation. For the second consecutive year, the golf tournament will be held at a separate site from the convention.

On the following pages GOLFDOM has listed the merchandise that manufacturers, distributors and representatives will be exhibiting at the GCSAA show. The listing is not official; only the companies, not the association, have indicated to GOLFDOM that they will be at the show.

An asterisk preceding a company's entry indicates that details on its line were unavailable at press time.

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GOLF CARS AND EQUIPMENT

Club Car, Inc., features the four-wheel electric *Caroche* golf car with automotive steering, aluminum I-beam with triple-thick impact resistant fiberglass body. Offers 1,298 square inches of foot-room. Also available are the *Caroche Runabout* and *Vanguard* over-the-road electric vehicles capable of sustaining speeds of 24 to 26 miles per hour for a distance of 53 miles on a single battery charge.

Cushman Motors, Div. of Outboard Marine Corp. Eight models make up line for 1973. The four-wheel *Town & Fairway* comes with 36-volt electric or 10hp gasoline power. *Gran Cushman 400*, a four-wheel car, in electric or gasoline model. *Gran Cushman 300*, three-wheel model, in electric or gasoline. Equipment same as 400. *Trophy 400* (four-wheel) and *Trophy 300* (three-wheel) electric cars.

E-Z-Go Car Company, Div. of Textron Inc. Features three-wheel (*X-440*) and four-wheel (*X-444*) electric and three-wheel (*GX-440*) and four-wheel (*GX-444*) gasoline golf cars. Three-wheel models feature beefed-up front fork and dual hydraulic shocks. Four-wheel models have low center of gravity, higher ground clearance and shorter turning radius. Electric cars feature a 36-volt D.C. engine with a motor shaft that connects directly to the differential pinion shaft.

Harley-Davidson Motor Company offers a four- and three-wheel electric and four- and three-wheel gasoline golf car line for 1973. The four-wheel cars feature individual front wheel suspension, coil

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shocks, vinyl floor mat, beverage holder and a Master Drive electrical circuitry system. Gasoline cars feature Dyna Start instant ignition system, which starts and stops the engine as the accelerator is depressed or released.

Pargo, Inc., features new improvements in its 1973 golf car line. Electric golf cars with adjustable seat back, increased protection including side rub rails all around the fiberglass segments of the car. Increased leg room and storage space for pocketbooks and sweaters. Car has been designed to give deluxe ride by the use of coil rear springs.

Texas Refinery Corp. features specialized lubricants, fuel stabilizers, tire sealants and chemical cleaners.

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disposable golf towels

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For more information circle number 207 on card

IRRIGATION EQUIPMENT

Aqua-Dial features underground rotary gear-driven pop-up sprinklers, lawn and shrub spray heads and above-ground impact sprinklers—full circle.

Batrow Laboratories, Inc., features *H₂O* lawn irrigation systems including pop-up head sprinklers and nozzles, electric valves and adapters, saddles and accessories.

Buckner Sprinkler Company, showing a general line of sprinklers, valves and controllers, including pop-up rotary impact type, gear driven, and cam driven sprinklers. Also the *Binar* two wire control system.

Certain-teed Products Corp., Pipe & Plastics Group, features PVC plastic and asbestos-cement irrigation pipe.

Cla-Val makes automatic valves for pressure and flow control.

Griswold Controls will show irrigation valves, solenoid operated, A.C. and D.C., with automatic self-cleaning and self-draining features. Also the Griswold controllers for large and small irrigation systems.

Hays Mfg. Company will show the *Select-O-Rain* 12-zone turf watering automatic controller with new Drum Programmer. Also the four-inch *Marfaid Solenoid*.

Irrigation Division, Toro Company, has automatic controllers and automatic valves, both hydraulic and electric; conversion actuators; pop-up spray heads; shrub sprinklers; pop-up gear-driven rotary stream jet pop-up sprinklers; electric three way pilot valve; impact drive sprinklers; quick-coupling valves and keys and a full line of accessories.

Johns-Manville Irrigation Corp. features the *Binar* automatic irrigation system. A newly-developed remote control field unit will be featured. The system eliminates satellites, lowers maintenance and prac-

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tically eliminates disturbance when converting from manual to automatic. J-M pipe also on display.

Liqui-Trol Systems, Inc., specializes in water pressure booster systems for golf courses.

Moody Sprinkler Company Inc.,

1973 marks the golden anniversary of Moody's development of automatic sprinkler and valves. The first controller made will be shown along with new models of advanced central programmers.

L.R. Nelson Mfg. Company, Inc., will show a full line of sprinkler irrigation equipment.

Rain Bird Sprinkler Mfg. Corp. introduces its *Multi-Path Irrigation System*. Operates from central location, has modular, printed circuit

controls, is flexible and totally automatic.

Rain-O-Mat Sprinklers, Inc., features *Number 10H* part circle rotary pop-up sprinkler for use at up to 60 feet triangular spacing. *Number 21* long-range pop-up rotary sprinkler and *Number 7* screw-adjustable rotary pop-up sprinkler.

Skinner Irrigation Company offers a complete line of irrigation equipment featuring an upgraded version of the *UR-6* fairway sprinkler along with the new compact *UR-8* tee and green sprinkler.

Sprinkler Irrigation Supply Company distributes golf course irrigation equipment.

Telsco Industries will show sprinkler heads, electric control valves and automatic controllers.

Thompson Mfg. makes gear-driven sprinkler heads.

Weather-matic Div., Telsco Industries, will be showing the new *K Series* impact sprinkler heads, which feature aluminum alloy vinyl coated body, available in full or part circles. Also showing the *Command Satellite* control system.

White Turf Engineers, Inc., distributes and installs irrigation equipment. Will show products manufactured by **Weather-matic**, **Rain Bird**, **Sloan**, **Smith-Blair**, **King Bros.** and **Ametec**.

MAINTENANCE EQUIPMENT

Atwater Strong Company, Inc., introduces *M1-T-VAC* vacuum loader attachments for riding tractors and mowers. Also the *Lo-Blo Air-Broom* and the *Lit-R-Blo* sweepers.

John Bean Div., FMC Corp., is showing three models of sprayer units. *Model 1010-GE* features 10 gpm at 500 psi. Has 100 gallon stainless steel tank, boom mountings for Cushman and most other carts, mechanical agitation with 6½ hp Kohler engine; *Model MF-100G* features pto driven John Bean centrifugal pump. Up to 38 gpm

SMITHCO inc.
WAYNE, PA. 19087

NEW, IMPROVED EASY RIDER II TRAP RAKE



Smithco has taken the world's fastest and most maneuverable trap rake, made it smoother, quieter, and improved its finger-raking action to give you the most finished-looking trap. Added is a new, protective shield which keeps sand and dust from the engine, transmission, air filter, and a redesigned front end which allows for even greater maneuverability in small traps. When you want to do the fastest and best job in your traps, check **Smithco's** new synco-mesh **EASY RIDER II**.

For more information circle number 205 on card

discharge at 40 psi, 19 anti drip nozzles with Cushman type mounting. Steel epoxy lined tank with stainless steel, optional.

Briggs and Stratton Corp. showing small, air-cooled, four-cycle, single cylinder engines.

The Broyhill Company is showing two wheel portable unit for lawn, garden and utility spraying. Corrosion resistant polyethylene tank with sump and drain fitting. Internal centrifugal pump driven by 3½ hp Briggs & Stratton engine. Bypass agitator thoroughly mixes solution. Variable pattern handgun with 12½ feet of hose.

Bunton Company makes heavy-duty commercial turf equipment; trimmers and edgers with eight- to 18-inch cuts; push mowers with 18- to 22-inch cuts; self-propelled riding units with finger-tip power steering in 23- to 52-inch cuts.

The Champion Company offers three models in its *Doo-all Trailer* line. *Roll-Dump* hoppers, available in one-cubic yard and two-cubic yard capacities, are also featured on two models.

The Cyclone Seeder Company, Inc., carries a complete line of broadcast hand and pull spreader/seeder.

Dedoes Industries, Inc., introduces a smaller version of its *Dedoes Aerator*. Can be used with the Bolens, Wheel Horse tractors or Cushman Truckster. Smaller pluggers make it ideal for tees and greens.

Edwards Mfg. Company features *Hypro* roller, and two- and four-cylinder piston pumps. Complete line of heavy-duty sprayers and accessories.

E-Z Rake, Inc., features its self-propelled power thatcher, available with an 18-inch width rake (*Model 48*). *E-Z Vac* vacuum (*Model 31*).

Gandy Company features the *Turf Tender* 24- and 42-inch spreaders.

Giant-Vac Mfg. Inc., makes a complete line of vacuums, blowers, truck loaders and thatchers for

cleaning all types of debris and renovating turf areas.

Goodall Div., Bunton Company, showing heavy-duty turf equipment, trimmers and edgers in 12, 18, 10-inch cuts; push mowers, 18, 19, 20, 22-inch cuts. Self-propelled riding units have finger-tip power steering in 24, 23, 32, 36, and 52-inch cuts.

Hayden Beatty Rambler, Inc., features self-contained dump trailers and materials transporters.

Howard Rotavator Company, Inc., introduces *Turf-Quaker* aerator units to relieve compaction and open up the soil for nutrients.

H.D. Hudson Mfg. Company is exhibiting the *Suburban Trail-N-Spray* power sprayer. It hitches onto any yard tractor or riding mower. Also the *Hudson Matador* with 15, 30, 50, and 100-gallon tanks, on wheels or on skids. Choice of three or five gpm pumps. Comes with tractor hitch. Also showing the *Peerless* line of power

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LITTLE BEAVER SPIKER

RED RIDER
Easiest loading, easiest operating and most durable workcart in America



TOP RIDER
The only riding top dresser—three times faster than any other top dresser.

Smithco's REDHEADS
keep greens greener!

SMITHCO'S big three—featuring the **LITTLE BEAVER** has to be the first team of turf maintenance equipment. **LITTLE BEAVER** greens spiker is the fastest riding spiker anywhere! Spikes 18 holes in 2½ hours. Turns on greens without ripping. They all have the interchangeable big red power heads. Check **Smithco's REDHEADS** when you want greener greens.

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4. E-Z-GO
5. PAR-EX
6. TERRA TURF
7. TUCO



sprayers and dusters.

Jacobsen Mfg. Company carries a complete line of turf maintenance equipment, including mowers, aerators, sweepers and top dressers.

Kohler Company makes a wide range of engines, including four-cycle, from four to 24hp and two-cycle, 20hp and up. New to the line is *Model K341*, a 16hp, one-cycle engine.

L.L. Larson Machine, Inc., features spreaders and sprayers.

Lindig Manufacturing Corp. New series of gas, diesel powered and three-point hitch brush chippers for mulching and pruning trees. Shredder-screeners for slash in, 12-cubic yard manual feed and tractor bed models available with 14 and 30hp gas engines.

The F.E. Myers and Bro. Company, features the *TurfLine* greens sprayer with 10 GPM., 300 psi., 100-gallon tank, 15-foot boom and Terra Tires.

Olathe Mfg. Company, Inc., features three models of brush and limb chippers. All have safety spring loaded throw-out clutch that stops feed, reduces injuries to operator.

Onan Div. of Onan Corp. introduces five models of engines with two-cylinder opposed pistons for golf cars, sprayers, and commercial lawn equipment.

Royer Foundry and Machine Company shows the standard *Royer Shredder and Clipper*, featuring the Royer Power Screen.

Ryan Equipment Company has im-

proved its *Greensaire II* aerator. Tines penetrate three inches into all types of soil, can remove 36 cores from each square foot with minimum of surface disturbance.

Skaggs Turf Equipment, Inc., features a sand trap rake and a core-shredder attachment for an aerator.

Smithco, Inc., features the *Little Beaver* greens spiker, which is said to spike 1,000 square feet a minute, and the *Top Rider* riding top dresser. Also the *Easy Rider* trap rake; *Hawk* sprayers with a fiberglass tank and *Lark* sprayers.

Stewart Bros. Company introduces the *Spread-All* top dresser designed to fit into the box of Cushman's standard size vehicles.

Teledyne Wisconsin Motor features *Wisconsin* and *Wisconsin Robin* long-life engines.

The Toro Company features *Rake-O-Vac Sweeper* with accessories, *The Landscaper 6* and the *Sandpro*.

Turf Vac Corp. introduces two sizes of *Truck Loaders* and a tractor drawn five-foot sweep *Lift Dump* machine. Also a five-foot sweep tractor drawn *Lift Dump* unit.

Vandermolen Corp. introduces the 848 *Superblo* blower powered by a Wankel rotary piston engine. According to the company, the Wankel offers 5,000 rpm and some 40 per cent more airblast than a four-cycle blower. New is the *Boar* mist-blower powered by a Wankel engine. Also, *KWH* back pack and wheeled blowers, *Diadem* brush chipper.

Vermeer Mfg. Company features stump cutters, tree movers, tren-

chers and vibratory plows.

Vicon Farm Machinery Inc. A complete line of dry fertilizer spreading equipment.

Weed Eaters, Inc., features gas powered trimmer-edger, utilizing mono-filament nylon as cutting device.

MAINTENANCE VEHICLES

Bruce Mfg., Inc., makes the *Pug* four-wheel drive utility vehicle.

Cushman Motors, Div. of Outboard Marine Corp. introduces for 1973, a modular system of turf care equipment. Each item in the system attaches to the three- or four-wheel *Turf-Truckster*.

Hawaiian Motor Company is showing the *Daihatsu* turf utility vehicle, with or without cab. Also *Larkin Jobber*, a small utility three-wheeled vehicle.

Hesston Corp. introduces the 18hp *Front Runner* grounds maintenance tractors and attachments. The *Model 180* drives Hesston's new retractable 80-inch batwing mower.

International Harvester Company will show the 2050A *Loader* and 3122 *Backhoe* with the 2400A *Series Tractor*; also the 3200A *Compact Loader* with 58-inch utility bucket and *Model 3082 Backhoe*; *International Cub 154 Lo-Boy* tractor; 14hp *International 149 Cub Cadet* lawn and garden tractor with hydrostatic drive; 3 1/2hp *International* walk-behind power mowers with grass catcher.

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Smithco, Inc., features the *Red Rider* line of loading and operating work carts.

MOWERS

Excel Industries, Inc., makes the *XL-272 Hydrostatic Hustler Multi-Mower*, which features as standard, an 18hp Kohler, two-cycle air-cooled engine, hydrostatic transmission for each drive wheel, attachment hitch, electric clutch and locking attachment for parking, among others.

Flymo is exhibiting multi-use air cushioned mowers for greens, bunkers, sand traps and generally hard to reach places.

Ford Tractor Operations has a complete line of grounds maintenance tractors. Introduces the heavy-duty *Flail Mower* and the *340 Compact Loader*.

Hahn, Inc., features the *Tournament Triplex Greens Management System*, used for greens cutting, tee and collar mowing, spiking and verti-cutting. Unit is self propelled.

Hahn is also the exclusive distributor for **Ransomes Sims & Jeffries, Ltd.**, of Great Britain. Ransomes' hydraulic *Versa Cut* gang mower for large area mowing is featured. Has instant height of cut, variable reel speed, hydraulic powered reels, instant back lapping from operator's seat. Also showing *Quick Release Reels* for easy maintenance.

International Harvester Company will show five industrial tractors and allied equipment, featuring the low-profile *2400A Lo-Boy* with three-point hitch.

Locke Mfg. Div. will exhibit its riding greens mower, *Tri-Plex*, with fully articulated cutting heads for maximum ground contour tracking; *Locke Maxi*, 87-inch cut with hydrostatic drive.

Mott Corp. features hammer knife safety flail mowers in either self-propelled or powered trail-behind for small tractors. The flail mowers are for mowing lawns, shredding weeds, mulching leaves or renovating turf. Also *Simplicity 4040* tractor.

National Mower Company features 84- and 68-inch triplex green mowers with Briggs & Stratton engines, full pneumatic tires and power driven free floating cutting units.

Ransomes Sims & Jeffries, Ltd., See Hahn, Inc.

Roof Mfg. Company makes a complete line of walk-behind mowers in cut sizes from 21 to 30 inches, and 60-inch commercial riding mowers.

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8. DIAMOND SHAMROCK
9. MILWAUKEE SEWERAGE
10. APPLIED BIOCHEMISTS
11. MALLINCKRODT
12. CUSHMAN
13. INTERNATIONAL HARVESTER
14. RYAN
15. HOWARD ROTAVATOR
16. F.E. MYERS
17. JOHN BEAN



Roseman Mower Corp. introduces the Roseman hydraulically-driven reel mower in a seven-gang tractor mounted model. Also 11-gang hydraulic lift-type mowers with a cutting width of 24 feet.

Ryan Equipment Company, marketed by Outboard Marine Corp. New to the line is the *Commercial Mower*, a 21-inch rotary mower with two-cycle engine. Made of die-cast aluminum, has fully protected blade and rear shield, vinyl covered front bumper and crash bar. Standard features include: 1 1/2-gallon fuel tank with gauge, eight-inch ball bearing steel wheels, seven cutting heights.

The Toro Company introduces the *Series 6 Parkmaster and General Tractor* with six cylinder, 250-cubic inch Chevrolet engine. Available 5, 7, or 9 reel unit gang mowers, can mow 80 to 90 acres a day. Other units are the 70-inch and 76-inch *Professional* mower unit; *Super-Pro*, 12hp three cutting units; *Trojan II* with 50-inch Whirlwind rotary; *Greensmaster 3*.

Yazoo Mfg. Company, Inc., makes a complete line of mowers, which includes front-cutting industrial tractors, the *Big-Wheel* hand mowers and an edger.

TURF PRODUCTS

Agrico Chemical Company introduces new package designs for its *Country Club* line of fertilizers, which feature new formulations that fit into programs designed to make effective turfgrass management as simple as possible.

Agway, Inc., makes pesticides, fertilizers and seeds. Also manufactures the *Porta-Bin* bulk storage unit, which eliminates handling fertilizer bags.

American Bio-Turf, Inc., features the pro-biotic soil conditioner, *Bio-Turf*, which increases soil porosity through flocculation.

American Research Corp. distributes fungicides, insecticides, fertilizers, weed killers.

Applied Biochemists, Inc., features *Cutrine*, an algicide to control filamentous, planktonic and chara algae. Cutrine is registered by the Environmental Protection Agency. Also *Swimtrine* algicide for swimming pools.

Aquashade, Inc., introduces *Aquashade* liquid for controlling aquatic growth.

Aquatrols Corp. of America features soil wetting agents, including *Aqua-Gro*, a non-ionic wetting agent that relieves compaction and moves water into hard-to-wet areas. Coverage is 16,000 square feet per gallon. *Aqua-T* is a low cost blend, non-ionic organic wetting agent. Wilt control agent, *Stoma-Seal*, chemically controls wilt on greens, tees and fairways and other turfgrass areas.

BASF Wyandotte Corp. features *Turfarc* arcillite soil amendment for constructing and conditioning golf greens.

Certified Laboratories. *Certifen*, a soil sterilizer. The *Centurion* portable sprayer. *Turf Edge*, a chemical edger and *L.T.F.*, a liquid turf fungicide.

Chemagro, Div. of Baychem Corp. Features *Baygon 70% Wettable Powder* insecticide for control of flies and mosquitoes. *Dasanit 15% Granular* ornamental and turf nematocide for nematode control, up to nine months. *Dexon 35% Wettable Powder* is a non-mercurial fungicide for ornamentals, lawns and turf. Controls Phytophthora and Pythium organisms. *Dyrene 50% Wettable Powder* is a broad spectrum turf fungicide for major turf diseases.

Ciba-Geigy Corp. features *Diazinon* granular insecticide for control of cinch bugs, sod webworms, billbugs, fruit flies, chiggers, fleas, ticks.

W.A. Cleary Corp. introduces *Cleary's 3336* and *Bromosan* system turf fungicides. These fungicides are non-mercurial.

Cloro-Spray Corp. makes *No-Wilt* vinyl-acrylic copolymer that forms a clear film on trees, shrubs and other plants, preventing excessive moisture loss during dry periods. *Ferro-Spray Plus* is a water-soluble liquid fertilizer combined with an iron chelate solution, a non-ionic organic wetting agent and chlorophyll.

Diamond Shamrock Chemical Company features *Dacthal G-5* herbicide for controlling crabgrass, *Poa annua* and other weed pests; *Dacamine* turf herbicide knocks out dandelion, Canada thistle; *Daconate* post-emergent herbicide for crabgrass and chickweed and is a premium arsonate liquid mixed with surfactants; *Daconil 2787* is a fungicide for controlling diseases, such as leaf spot, crown rot and brown patch. *Dacthal W-75* for preemer-

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gence control of annual grasses and broadleaf weeds.

Dow Chemical Company offers *Dursban 2E* insecticide for control of chinch bugs and sod webworms; *Zectran 2E* emulsifiable concentrate multi-purpose insecticide for control of snails and slugs.

E.I. DuPont de Nemours & Company, Inc., features color photographs of major turf diseases and turf disease control in the *Tersan* 1-2-3 Disease Control Program. A large table showing the common infection periods, recommended products and application schedules round out the exhibit.

Elanco Products makes *Balan Granular* for control of crabgrass, *Poa annua*. *Treflan Granular* for control of weeds and *Pipron* and *Parnon* for control of powdery mildew in ornamental crops.

Enzyme Industries, Inc., features *Grozyme* soil conditioner. It is a bio-catalytic liquid with surfactants to relieve soil compaction.

Fer-Mel Corp. distributes golf course fertilizers in water soluble and granular blends.

Miles W. Fry and Son grow hybrid poplar trees for golf courses and nurseries. Also showing Crown-vetch.

J.M. Huber Corp. features peat and peat moss for greens construction and maintenance.

Hercules, Inc., makes *Nitroform 38-0-0* nitrogen ureaform fertilizer in two forms: *Blue Chip* granular for mechanical spreaders and *Powder Blue*, a sprayable ureaform.

Kaiser Agricultural Chemicals offers five turf fertilizer programs that use its *Tee & Green Fertilizer 101*, *Fairway Fertilizer 102*, *Professional Ureaform Nitrogen 103*, *Professional Turf Fertilizer & Weedkiller 104* or *Kaiser 5-10-15*.

Lofts Pedigreed Seed, Inc., features *Baron* Kentucky bluegrass, which is Certified Blue Tag and *Poa* and bentgrass free. Other varieties available from Lofts include *James-town* red fescue, *Exeter Colonial* bentgrass and *Kingstown velvet* bent.

3M Company adds to the *Mariner* line of aquatic herbicides several new algicides as well as broad base weed control product.

S & D Products, Inc., features patented controlled release fertilizer packets for trees, shrubs and roses. *Eesy-Grow-Rootcontact Paket* fertilizer packet is for long term feeding of trees and shrubs.

Stanford Seed Company carries varieties of turfgrasses.

Stauffer Chemical Company is showing a regional breakdown of its insecticide lines, including *Aspon* for turf and general use; *Betasan* herbicide for turf (can be nationally used); *Imidan* insecticide for trees (most appropriate in the Northeast), and *Dyfonate* turf insecticide (Southeast).

Tuco, Div. of The Upjohn Company, introduces an insecticide, *Proxol 80SP*, recommended for preventing and controlling sod webworms, cutworms, chinch bugs and other damage causing insects. *Acti-dione TGF* broad-spectrum fungicide.

Turf-Terra Div., Koos, Inc., fea-

tures *Premium* turf foods, including *Super Green & Tee Food*, which provides a new source of potash and sulfur and contains natural organic nitrogen.

Union Carbide Corp. manufactures *Sebin* insecticide for controlling of chinch bug, sod webworm control, ants, and other ground insects.

USS Agri-Chemicals, Div. of U.S. Steel Corp., features *Vertagreen* fertilizers for tees, greens and fairways. Also *Vertagard* turf protection chemicals and herbicides. *Vertagard Betasan 4EC* is a preemergence for crabgrass and *Poa annua*.

Velsicol Chemical Corp. features *Heptachlor* and *Chlordane* soil insecticides. *Banvel +2,4-D* turf herbicide for control of broadleaf weeds on fairways, aprons, tees and roughs. *Banvel 4S* herbicide, also for broadleaf weeds on fairways, aprons, tees and bentgrass greens. *Bandane 15G* for pre-emergence crabgrass control, in granular formulation.

Warren's Turf Nursery. Dealers and makers of *A-20* and *A-34* bluegrasses. The former is a highly-resistant strain with good density, dark color and the ability to perform well under low mowing heights. Adaptable to tees, fairways, approaches and collars. *A-34* is shade tolerant and disease-resistant.

Whitney-Dickinson Seeds, Inc., world-wide marketers of Manhattan perennial ryegrass. Also showing Pennfine ryegrass, Pennstar and Galaxy Kentucky bluegrass.

Mallinckrodt Chemical Works features *Calo-Clor* brand turf fungicides and other turf products including *Auragreen* fungicide; *Cad-*

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HIGH DENSITY PLASTIC WEATHER-PROOFED



The bright, yellow-handled RAKE-Ezee Rake flags attention, reminds golfers to rake trap. Stands erect on blunt metal point.

Sturdy, attractive, won't rust, yet low in cost. Rake-Ezee stands erect on point, reminds golfer to rake trap. Fully guaranteed with tough plastic head. See your distributor, or write:

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Plastics INCORPORATED
ELLENDALE, MINN.

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Hire a Disabled Veteran



QUALITY • SERVICE



Imperial Caps, Inc.
Denver

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GCSAA

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minate fungicide; *Calo-Clor* mercuric chloride fungicide; *Calo-Gran* dry granular mercurial fungicide; *Koban* fungicide for Pythium; *Kroma-Clor* fungicide; *Kromad* fungicide; *Trex-San* broadleaf weed-killer; *Spring-Bak* fungicide for bermudagrass; *Thiramad* fungicide for brown patch, dollar spot and snow mold; *Tobaz* systemic fungicide; *Po-San* fungicide for *Poa annua* fairways; *Pre-San* preemergence herbicide and *Vitalon* foliar colorant.

Merck Chemical Division features *140-F* fungicide for controlling major turf diseases.

The Milwaukee Sewerage Commission features *Milorganite*, a natural organic fertilizer.

Mock Seed Company, Inc., processes and distributes seed for fairways and roughs.

National Chemsearch. Carries *Fen-ocil*, a sterilant; *Grotard* growth retardant; *Watrol* aquatic weed killer; *Ferate*, a liquid iron compound.

Oil-Dri Corp of America makes *Terra-Green Special Top Dressing* and *Terra-Green Soil Conditioner*. Also *Jumbo-Jrs.* for mud-proofing playground areas. Absorbs water quickly, non-abrasive, non-toxic, non-flammable.

Par Ex Professional Products, Swift Agricultural Chemicals Corp. Features fertilizers that contain IBDU (isobutylidene diurea), a slow release nitrogen that is released by hydrolysis, not temperature or bacterial activity.

Plant Marvel Laboratories offers a 25-pound bag of water-soluble *Bent Special* fertilizer free to every superintendent. Their simplified fertilizer program calls for liquid feeding the turf two ways: feeding foliage and feeding roots at the same time. Each of the seven *Nutriculture* formulas contains sequestered

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TURFflow



New 2 inch plastic drainage tubing...

Ideal for golf course greens, tees, traps and fairways, TURF-flow tubing and fittings feature flexibility and trouble-free installation for conventional or Purr-Wick golf green construction. TURF-flow inside and outside flange fittings and molded rubber gaskets bolt together to provide a tight, positive seal at critical liner and drain connection points. And TURF-flow is available in 10 foot lengths or 500-ft. rolls, either plain or perforated with wide slits for heavy soils or filter-type slits for light and sandy soils to make TURF-flow the perfect choice for all golf course landscaping.



HANCOR INC.

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Golfers' Shelter



**A HAVEN FROM THE SUN
OR RAIN OR JUST A DARN
GOOD PLACE TO CATCH
YOUR BREATH.**

**Ships flat . . . then snaps
together for rapid assembly.**

**Unique interlocking framing
system allows for any size.
Expandable or moveable any
time.**

Virtually vandal proof.

Quality shelters from \$750.

**handi-hut division
MELROSE DISPLAYS INC.**
150 Dayton Ave., Passaic, N. J. 201-471-7700

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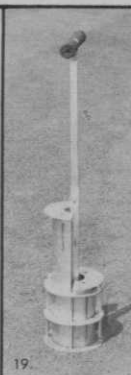
GCSAA

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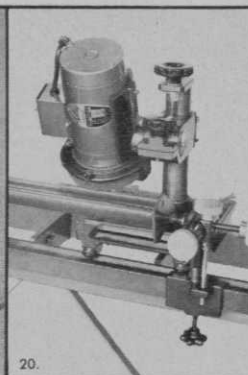
18. SMITHCO
19. CONTAINER DEVELOPMENT
20. FOLEY
21. TORO



18.



19.



20.



21.

trace elements and dissolves 100 per cent in water.

The Rudy-Patrick Company carries Penncross creeping bentgrass for greens, fairways and tees.

ACCESSORIES

Container Development Corp. features *Lewis Line Golf Equipment*, including the *GF20 Turfmaster* precision cup cutter. Also tee markers, flags and poles, ball washers.

Coursigns, Inc., will display plastic signs and stakes.

Dewey-Carter Sign Systems Company. Instant, low-cost sign making kit for golf course advertising.

S.B. Dunlop Enterprises introduces *Shagmaster* golf ball retriever. New concept, based on principle of rotating drums, uses modular plastic pegs as teeth.

Fore-Par Mfg. Company features permanent tee monuments; *Tee Towels*, heavy nine-ounce towels personalized with the club's emblem.

Mercury Products Corp., features a non-corrosive, plastic chain, in colors, for golf courses.

Mr. Chain, Div. of M-R Products, Inc., features hazard markers, tee markers, plastic chain, posts, fencing for car paths and flower beds.

Par Aide Products Company carries a complete line of golf course greens and tee equipment, including ball washers, benches, flagpoles and flags, tee markers and cups.

**Information unavailable at press time.*

Plasti-Chain Corp. carries *Estate Fencing*, post and chain. Made of easy-care polymer.

Shur-Way Development Company, Inc., features the *Divot-Fixer* for repairing ball marks. The tool repairs 12 ball marks a minute and forces new grass and roots from around the injured area into the center to hide the ball mark. Tool can double as a hand aerator.

Standard Mfg. Company presents an eight-foot configured aluminum tournament flag pole in yellow. The *Professional* hole cutter features replaceable chrome-plated cutting shell, which can be removed easily for sharpening by three recessed screws.

OTHER

Advanced Drainage Systems, Inc., makes corrugated plastic drainage tubing. Also *Drain Guard*, a corrugated plastic tubing combined with a nylon screen. Designed specifically to hold back sand particles.

The Davey Tree Expert Company, complete tree service organization, distributing *Davey Tree Food and Lawn Food*.

***Golf 'N' Country Club Services**

The Foley Mfg. Company features three models of precision sharpening grinders. *Model 388* sharpens entire mower without removal of either reel or bed knife. Made of rigid cast iron and steel. *Model 384 Bed Knife Grinder* for gang, fairway and greens mowers. One set-up assures properly ground bed knives.

Hancor, Inc., subsidiary of Hancock Brick & Tile Company, features two-inch *Turf-flow Corrugated Plastic Drainage Tubing* and fittings for golf course greens, tees, sand traps and fairways.

Kirchdorfer Irrigation, Inc., is a contractor of golf course irrigation systems, particularly automatic multi-row design.

Lake Shore Equipment and Supply Company. Carries a complete line of replacement parts for maintenance and irrigation equipment.

Larchmont Engineering and Irrigation is a consultant on use and installation of pumping stations and irrigation systems.

March Irrigation and Supply Company. Display photos of its engineering and contracting work.

Mid-State Bolt and Nut Company offers more than 25,000 fasteners for repairing golf course equipment. Made with zinc and gold chromate.

R&R Products manufactures high carbon, heat treated replacement blades for Ryan aerators and sod cutters.

The Toro Company's Game Time introduces *The Circle Eight* panelized buildings for course garage or pro shop. Available in two sizes: 32 feet in diameter with 800 square feet, and 40 feet with 1,200 square feet. Assembled as single unit or as connecting modules. They are adaptable to heating, air conditioning, and plumbing.

***Yankee Engineering Company**