



The most sought after public speaker in America, Ralph Nader, will provide the opening fireworks for the 43d annual Golf Course Superintendents Assn. of America International Turfgrass Conference and Show in Cincinnati, Ohio, February 13 to 18.

Nader, whose investigations on behalf of consumers has focused critical attention on practices within American industries, most noticeably the automotive and food ones, will speak on some aspect of golf.

Two possible areas of Nader's talk could be the preferential assessment of country clubs (see April, 1971, *GOLFDOM*, "What's Behind Nader's Attack on Golf?" p. 53). In a Letter to the Editor in July, 1971, Nader discusses the question of preferential assessment of green spaces at exclusive clubs and has emphasized to *GOLFDOM* that he is not against golf, but what he feels are some of the inequities which surround the taxation of country clubs. Another possible topic for Nader could be the area of pesticide usage and regulation.

It's a very positive step by the GCSAA to invite a critic of portions of the golf industry. The meeting

could open dialogue and clear up some of the misunderstandings, and possibly find some solutions toward correcting problems.

Comparison of the educational program this year as opposed to last year shows GCSAA's commitment to tackle some of the major problems plaguing golf course superintendents. A complete day, Monday, February 14, will be devoted to environmental issues. The topics of golf turf chemicals and legislative regulations should provide an insight into the chemical controversy. Tuesday morning features the opening of the exhibits. The afternoon session is devoted to management, including accounting procedures, record keeping, training techniques and communications.

A surprising addition to the educational program is the Wednesday session, which is devoted entirely to golf cars.

The Thursday morning session deals with progress in mechanization in golf course maintenance, motivation and effective use of manpower. The afternoon session discusses GCSAA research grant reports. The final session on Friday

morning is a panel discussion on the thinking superintendent.

On the show side of the conference, golf course irrigation innovations feature the total automatic system. Centrally located systems with push button control and low maintenance and installation emphasize flexibility and availability to the superintendent, as well as reduced manpower over manual systems. Among capabilities touted by manufacturers are: the ability to syringe dried out areas, use in conjunction with chemical applications, and the ability to wash off dew. The ability to water the entire course, or one hole at a time is also an advantage of the new irrigation systems. Manual systems can be converted to automatic with little disruption.

Another significant area of the GCSAA show will be in the golf car and battery section. The introduction of total power systems for electric golf cars takes some of the guessing out of battery charging. Battery charger packages that determine the condition of the battery and then automatically charge for the proper amount of time (thus elim-

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Maintenance equipment

*Atlas Lawn Equipment

Atwater Strong Company offers the *Lo-Blo* air broom sweeper.

John Bean Div., FMC Corp., has expanded its line of golf course sprayers which now feature stainless steel tank models as well as epoxy-lined tanks, mechanical agitation for proper material suspension and uninterrupted operation, John Bean pumps and a design combining both a lower center of gravity for stability and safety and greater ground clearance. The line includes five basic hydraulic sprayer models for boom and gun applications and four models of the *Rotomist* air sprayer. Three models are the economy-priced *Turf-keeper Model MF-100-GE*; *Turf-keeper Model 1010-GE*, which has a stainless steel tank and the *Turf-keeper Model 1010-TT*, a trailer-mounted sprayer.

Bolens Div., FMC Corp., offers outdoor power lawn equipment.

The Broyhill Company's line of spraying equipment includes tractor, trailer or skid mounted models; hand-gun, boom, portable boom, high pressure (400 to 700 pounds), low pressure or both; centrifugal, piston or roller pumps; engine or PTO drives and many accessories.

Bunton Company makes a heavy-duty commercial trimmer, *Model 22SPF-4T8*, with front wheel drive and extra large wheels for handling in rough terrain. Without engaging or disengaging any clutches, the operator can trim around shrubs, trees and hard-to-get areas. Grass clippings are evenly discharged into optional grass catcher because of the deep aluminum alloy frame. Width of cut is 22 inches. Especially designed for guard-rail trimming, *Model GR18-35THX* provides the operator with an off-set cutter housing, completely enclosed, to permit

trimming under guard rails, fences, shrubs and bushes.



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 third model will show the small chassis with the interchangeable flat bed in place. All units feature *Terra-Tires*. The two-cubic-yard chassis has a new square tongue for added strength for sharp turns under heavy load.



Stanley Clarke Equipment Company, Inc., introduces the *Trap-master* mechanical sand trap rake. One man operating the rake can maintain over 40 sand traps in four hours, according to the company. The rake teeth scarify the trap and the drag plates float out to smooth and finish the trap surface. Stanley Clarke will introduce also several "revolutionary new products."

The Cyclone Seeder Company carries the *Cyclone* line of seeder/spreaders. Models include a lawn spreader, broadcast hand sowers, broadcast hand spreader/seeder, a broadcast spreader/seeder that attaches to lawn and garden tractors and riding lawn mowers and *Model M-1A* broadcast spreader/seeder.

Dedoes Industries, Inc., introduces a smaller version of the *Dedoes Aerator*. This model has its own self-contained hydraulic system and has smaller pluggers, making it ideal for tees and greens. The swath width is 42 inches. The unit can be converted to a roller, slicer or spiker,

and has the same speed range as the larger aerator unit.



Edwards Mfg. Company offers sprayers.

E-Z Rake, Inc., introduces a self-propelled power thatcher, available with an 18-inch rake width (*Model 148*), 24-inch rake (*Model 164*), and tine-driven models with similar raking widths (*Models 48 and 64*). Features include a folding handle for easy transportation, a spin recoil starter, two hp engine, enclosed drive housing, back guard plate and baked enamel finish.

Fibre Products Div., McGraw-Edison Company, offers a tree edger.

Friend Mfg. Corp. offers a line of sprayers, dusters and industrial pumps.

Gandy Company makes the *Turf Tender* line of granular chemicals, seed and fertilizer applicators. The *Turf Tender 24*, has six hand models in the line. They are available with handle or tractor hitch, 75 pound capacity hopper, snap-on stainless steel bottom and slide with 20 triangular openings spaced 1 1/2 inches center-to-center. *Turf Tender 42* is a pull-type applicator with six models in the line.

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, makes a commercial trimmer-edger, *Model 18G-35GL*, which has front caster wheel swivels to allow easy level turning when trimming around trees, fences, walls and shrubs. The front caster wheel can be locked in a straight position for tilting when edging along sidewalks, driveways and curbs. Edger guards prevent marking or chipping from blade.

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*Information unavailable at press time



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Cutting height is adjustable from 1 3/8 inches to 2 3/8 inches; width is 18 inches. Also available is *Model 22GSPF-4T8*, which has a 22-inch cutting width.

Hahn-West Point Div. introduces for 1972 the *Aeri-Boy* aerator for use on fairways. A full range of spoons, ranging from one-fourth to three-fourths inch, are available with the unit as well as spiking blades. Other equipment in the line include tractor-mounted aerifiers, a pull behind aerator, walk behind aerator, a *Verticut* unit and the *Power Drag*.

Hayden Beatty Rambler, Inc., features a hydraulic trailer.

*Hesston

***Howard Rotavator Company, Inc.**

H.D. Hudson has a spray rig with a telescopic mast which puts the spray gun up to 19 feet above ground while being controlled by the operator on the platform. Gun is adjustable from 10 feet to 19 feet high and can spray in almost any direction or angle.

*Jacobsen Mfg. Company

Kohler Company announces that a larger, top-mounted 1 1/2 gallon capacity fuel tank is now standard on its 6 1/4 hp (*Model K141*), 7hp (*Model K161*) and 8hp (*Model K181*) engines. New also is a heavy-duty tank mounting. A side-mounted tank with fuel pump is optional. Standard on all three engines is a 15-amp alternator system. All three are air-cooled cast iron engines of large bore and short stroke design. *Model K482*, a two-cylinder engine, is an 18hp cast iron engine for heavy-duty use.

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

Lely South West, Inc., offers new this year the *Roterra* which features

vertical tines that whirl horizontally through the soil. The machine can be operated at depths up to eight inches, is hitch-driven and pto-driven. Several models are available in widths ranging from 60 inches to 180 inches. Other models in the line include the *Model HR* and *Model WGR*.

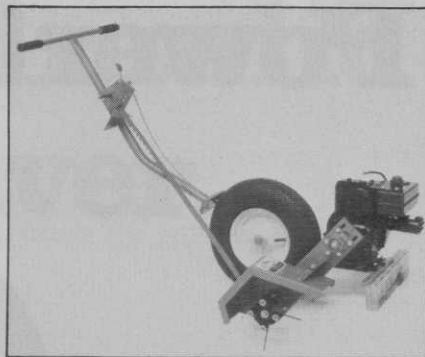
Lindig Mfg. Corp. introduces the *Kajon 914 Chipper*, which when combined with larger *Chippers* in the line, provide turfmen with mid-size brush *Chippers* with engines ranging from 14 to 30hp. They are designed for towing behind trucks or turf vehicles and for direct truck/tailer loading. The new *M-8 Shredder/Screener* for manual feed processing of topsoil, compost, turf and manure is also available. Lindig also has new this year its *SCM-720 PortaScreen* for high quality power screening. Improved this year is the *KT-15 Shredder/Screener*, which now comes with a 14 or 18hp air-cooled gas engine with an electric starter.

Mallinckrodt Chemical Works offers the *Mark II Spray-Hawk*, a mobile turf sprayer. The operator can coordinate the pressure to his walking speed, thereby spraying at the exact rate recommended by the manufacturer.



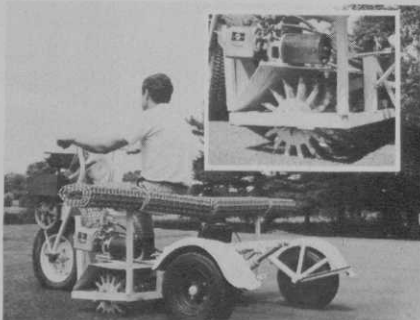
The F.E. Myers & Bro. Company features a full, new line of boom and gun power sprayers for weed, fungus and insect control. Called *TurfLine*, the line includes sprayers for large turf areas, for mosquito control, tree and shrub care and right-of-way maintenance. The *Greens Sprayer (Model TL10ETMG)* features an adjustable fast hitch, allowing it to be used with a utility cart, lawn tractor or turf tractor. The boom covers a 15-foot spray swath, has drip-proof diaphragm check nozzles and can be compactly stored.

Ryan Equipment Company introduces this year the *Ryan Sand Trap*



Edger. The edger has tempered spring wire tines for all types of grasses. The tines are pivot-mounted and run in reverse direction for fine cutting and so the cut material is thrown ahead and to the side. A depth control allows adjustment for sand traps that are level with the surrounding turf or for traps with high bunkers.

*Skaggs Turf Equipment



Smithco, Inc., introduces the *Little Beaver Spiker*. The self-propelled spiker has a hydraulic lift for the spiking reel and can do 18 greens in two hours, according to the company. It has a seven-inch drag mat for spiking and dragging simultaneously. Also new is the *Super Duper Lark Sprayer* with a 110-gallon capacity fiberglass tank and 10 gmp Golden Eagle pump. Other sprayers in the line include the *Spraymate Chickadee*. Also new is the *Top Rider* mechanical top dresser and the *Trap Rider* sand trap rake.

The Toro Company features the *Landscaper 6 Professional*, the deluxe model in its landscaper line. The width is 72 inches, and the unit mounts on a standard three-point hitch-equipped tractor. It has separate seed and fertilizer compartments. The seed compartment has a 100-pound capacity; the fertilizer compartment, a 250-pound capacity. Attachments include a scarifier,

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*Information unavailable at press time



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slicer and optional rake bar. *Landscaper 4* and *6* are also available. The *Rake-O Vac* rakes, vacuums, renovates and conditions turf and can be used on hard surfaces. The *Trojan 3* all-purpose maintenance machine is a snow blower, snow grader, leaf blower, leaf mulcher and rotary broom. Powered by a 14hp Kohler engine, it has a 60-inch *Whirlwind* rotary cutter, electric starter, power steering.

Turf-Vac Corp. features *Model-FM5* and *Model 70* from its line of turf sweepers. *FM5* has a sweep of five feet, a hopper capacity of five cubic yards, 12hp engine and comes with accessories such as a 14hp engine, electric starter and scoop brush. *Model 70's* hopper capacity is 38 cubic yards.

Vandermolen Corp. introduces the 7-11 *Fastblo* wheeled blower which has a 180 mph airblast, weighs 48 pounds and does not use crankcase oil. Another product in the line is a portable gas-powered knapsack blower, available now with a tank which allows two hours of operation without refilling. This blower generates a 225 mph airblast, weighs 19 pounds and comes with an optional sprayer kit. Van Der Molen also markets the *Diadem 290* spreader and seeder which is finished in a new epoxy plastic.

Vermeer Mfg. Company makes the *Tree Spade* line of tree removers for commercial use. Available in six models, ranging from a trailer-mounted "mini-spade," which removes and transplants trees up to three inches in diameter, shrubs and

*Information unavailable at press time

bushes, to a remover which can dig a tree ball 66 inches in diameter and can move trees up to six inches in diameter. Also available are seven models of stump cutters.

Maintenance vehicles

Bruce Mfg., Inc., has improved the 1971 models of *Pug* four-wheel drive utility vehicles by adding more powerful, quieter engines and new options. The vehicles can carry up to 1,500 pounds or seven adults plus the driver.

Cushman Motors has the *Turf Truckster* line of transportation and light hauling vehicles. The four-wheel models are equipped with 18hp gasoline engines, automotive steering and four-wheel hydraulic brakes. Options include a windshield, fiberglass cab with folding doors and rear view mirror.

Ford Motor Company offers new this year a 14hp hydrostatic lawn and garden tractor (*Model 145*), a 12hp hydrostatic tractor (*Model 125*), a gear-driven tractor (*Model 120*) and a 10hp, gear-driven tractor (*Model 100*). All models feature new design Kohler engines, tubular frames arched at the center for added ground clearance and automotive-type worm-gear steering. Other features include large rotary mowers up to 50 inches, large dozer blades, snow blowers and tiller and a quick hitch system. Also shown will be the *Model 340* compact loader.

Harley-Davidson Motor Company features its 1972 *Utilicar* model, which has a wheelbase of 70.5 inches; an over-all length of 98.5 inches; an over-all width of 42.35 inches and an over-all height of 38 inches. Six body styles are available, all gasoline powered, all three-wheeled.

*Hawaiian Motor Company

International Harvester Company introduces the 46hp *International 2400A* industrial tractor and a *No. 71 Industrial Mower*. The *2400A* is available in a regular and Lo-Boy version with a four-speed, synchronized, constant mesh spur gear transmission and can be used for mowing, blade work, scari-



fyng and scraping, loading and backhoe operations. Also to be show is the new 14hp *International 149 Cub Cadet* hydrostatic drive tractor with a new *No. 1 Sand Trap Rake* attachment. The 72-inch rake has two gangs; the front to break up crust and stir up weeds, the rear to smooth out the sand. The *149 Cub Cadet* is equipped with flotation tires. The 15hp *International Cub 154 Lo-Boy* tractor will be shown with an *International 3260* rotary mower and is designed for grounds maintenance and landscaping.

Smithco, Inc., introduces eight and 10hp models of the *Red Rider* work cart with number 50 chain and new handle bars. The *Big Red* work cart is a larger version of the *Red Rider* and has a capacity of 29 cubic feet; the over-all width is 74 inches.

Mowers

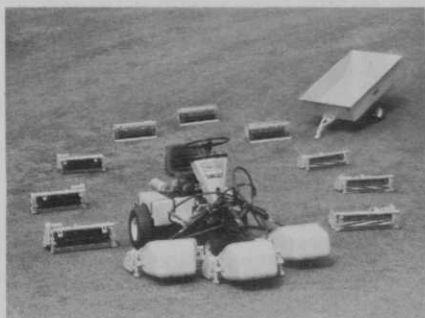
Bunton Company's *Model 36HDW-10TCI* is a heavy-duty mower designed and built for rough terrain and high cutting. It features dual traction and extra large caster wheels and has a 10hp engine.

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. The mower attachment cuts a 70½ inch wide swath, has three 24-inch blades, which have a cutting height of from two to five inches in three-eighths increments.

Hahn-West Point Div. offers the *Tournament Triplex Greens Man-*
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agement System, capable of greens cutting, tee and collar mowing, spiking and verti-cutting. The self-propelled unit can be changed from one operation to another in a few minutes, according to the company. The cutting units are driven by flexible cables, thereby eliminating the possibility of greens damage due to hydraulic hose ruptures.

*Jacobsen Mfg. Company

Locke Mfg. Div., offers the *Maxi* riding mower with a 10 hp Kohler engine, and the *Triplex* lawn mower, which comes optional for riding.

Mott Corp. has new for 1972 the *Expediter* mower, which cuts a width of 18 feet, 10 inches when complete. Height of cut can be adjusted and ranges from three-quarters inch to six inches. Standard features include heavy-duty front bumper, positive lock transport position, independent operation of three mowers and totally enclosed drive.

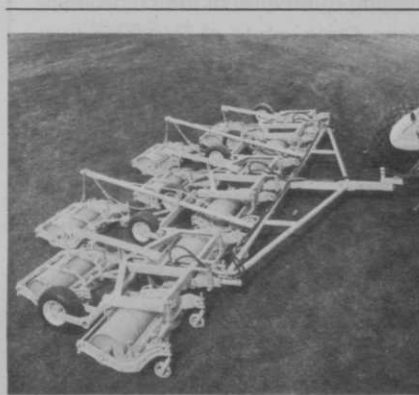


National Mower Company offers 68-inch and 84-inch triplex mowers. The 68-inch mower runs up to four miles an hour in forward and re-

verse, has traction, wing mower and rear mower clutches, power-driven free-floating reels and automotive-type differential. The 84-inch mower cuts at speeds of up to five miles an hour. Transport speed is 14 miles an hour. It has automotive-type differential, an extra long lip on bed knife, power-driven, free-floating reels and climbs a 40-degree grade. Gears are machined from solid steel.

Ransomes Sims & Jeffries, Ltd., imported from England by Warren's Turf Nursery, features its *Hydraulic Power 5/7 Gang* fairway mower. The seven gang unit can cut a swath 15 feet wide; the five-gang unit cuts swaths 11 feet wide. There is a choice of seven height-of-cut positions, ranging from one-half inch to three inches.

*Roof Mfg. Company



Roseman Mower Corp. introduces an 11-gang hydraulic lift-type mower. Cutting width is 24 feet or about 30 inches per unit. Height of cut is about one-half to three inches. The mower can be used with any utility-type tractor equipped with a hydraulic system.

The Toro Company announces new accessory attachments for its *Greensmaster 3* triplex greens mower: a roller cleaner and thatching reels.

Turf products

Agrico Chemical Div., Continental Oil Company, offers *Agrico Country Club* and *Gold Cup* fertilizers.

Agway, Inc., makes the *Agway* line of fertilizers, chemicals and seed.

*American Research Corp.

Applied Biochemists, Inc., offers *Cutrine*, an algacide for lakes and ponds.

Aquatrols Corp. of America offers *Aqua-Gro* and *Aqua-T* soil wetting agents.

Chanderlin Seed Company, Div. of Loft Seed Company, offers fine turfgrass seeds.



Chemagro Div., Baychem Corp., offers *Baygon 70% Wettable Powder* for control of flies and mosquitoes; *Dexon 35% Wettable Powder*, a non-mercurial fungicide for controlling *Phytophthora* and *Pythium* on lawns and turf and *Dyrene 50% Wettable Powder* for controlling leaf spot, copper spot, *Sclerotinia* dollar spot, *Typhula* snow mold, rust and brown patch.

Chipman Div., Rhodia, Inc., offers the *Chipco* line of turf products. *Turf Kleen* controls broadleaf weeds and comes in 30 and five-gallon drums and in one-gallon cans packed six in a case. *Turf Herbicide MCPP* controls surface-creeping broadleaf weeds, such as clover, chickweed, stitchwort, ground ivy and knotweed. *Microgreen*, a water-soluble blend of metal complexes of iron, zinc and manganese, corrects turf nutritional deficiencies. It comes in 50 pound bags and four-pound bags, 12 in a case. *Wetter Water* is a non-ionic wetting agent.

W.A. Cleary Corp. offers a non-toxic wettable powder fungicide called *Cleary's 3336* for control of cadmium-resistant dollar spot, copper spot, brown patch, *Helminthosporium*,
(Continued on page 52)

*Information unavailable at press time

BULLETIN

from *Warren's*
TURF NURSERY

Want to see
fairways planted
with Warren's® A-20
Kentucky Bluegrass...???

• Interested in learning
how you can replace
those poa annua in-
fested fairways with
Warren's A-20 Blue-
grass ... ?

• Do you need the quali-
ties of a vigorous grow-
ing bluegrass, with
proven disease resis-
tance and the ability
for maintenance at low
mowing heights ... ?

• Are you among those
who plan to build a
new golf course this
year and are in doubt
as to which grass will
look good yet can with-
stand unusual heavy
punishment from golf-
ers ... ?

• Want to see and learn
how short the time is
between planting A-20
and playing on it ... ?

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fairway A-20 planting,
in color ... ?

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A-20 Bluegrass ... ?

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red thread, *Fusarium Roseum* and *Pythium*. Also offered are *Cad-Trete* turf fungicide, *MCP-2,4-D* herbicide for broadleaf weed control, *Bromosan* fungicide and *All-Wet* non-ionic wetting agent among others.

Cloro-Spray Corp. makes *No-Will* vinyl-acrylic copolymer that forms a clear film on trees, shrubs and other plants. It prevents 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. *Dew Down Xtra* reduces surface tension of water.

Diamond Shamrock Chemical Company's *Dacthal* line of herbicides includes *W-75* for preemergence control of annual grass and broadleaf weeds. It comes in a wettable powder which can be applied with portable or power sprayers. *G-5* is a granular herbicide for annual grass and broadleaf control. *Daconil 2787* broad spectrum fungicide is recommended for *Helminthosporium* leaf spot, *Curvularia* leaf spot, dollar spot, brown patch, gray leaf spot, stem rust of bluegrass, copper spot, pink snow mold (Washington and Oregon only) and *Alternaria* leaf spot (California only). *Dadamine* herbicide gives post emergence control of perennial broadleaf weeds and *Daconate* post-emergent herbicide controls weeds.

*J.J. Dill Company

Dow Chemical Company offers the turf insecticide *Dursdan 2E* for mosquito control, and *Zectran 2E* and *25W* for all ornamental shrubs.

Eagle Picher makes *Dialoam* turf conditioner, which is said to cut compaction, improve drainage and retain moisture. It is non-toxic and compatible with all fertilizers.

*Information unavailable at press time

E.I. DuPont de Nemours & Company, Inc., features a new *Tersan 1-2-3* turf disease program which consists of *Tersan LSR* maneb fungicide for brown patch and rust control; *Tersan 1991* benomyl fungicide for dollar spot, large brown patch and *Fusarium* patch control, and *Tersan SP* chloroneb fungicide for snow mold and *Pythium* control.



Elanco Products Company offers *Balan* granular pre-emergent herbicide for controlling annual weed grasses. *Treflan*, available in both liquid and granular formulations, controls annual grasses and annual broadleaf weeds. *Dymid* is available in a wettable powder and granular form and controls annual grasses and broadleaf weeds, particularly winter-germinating weeds. *Parnon* liquid concentrate fungicide prevents the establishment of powdery mildew organisms on certain ornamentals.

Enzyme Industries, Inc., introduces *Grozyme* soil conditioner. The biocatalytic action of this product relieves soil compaction and aerates the soil, allowing nutrients and moisture to penetrate the root system. Another product is *Sanzyme*, which eliminates waste odors. Its catalytic action digests organic wastes by splitting fats, starches and proteins into water-soluble components. It can be used in drains, grease traps or septic tanks. Both products are bio-degradable and harmless to plants, animals and humans.

*Geigy Agricultural Chemicals

Hercules, Inc., makes *Nitroform 38-0-0* nitrogen ureaform fertilizer in two forms: *Blue Chip* granular for use in mechanical spreaders and *Powder Blue*, a sprayable ureaform. Under the theme, "It's Your Bag," the exhibit will also feature in four-

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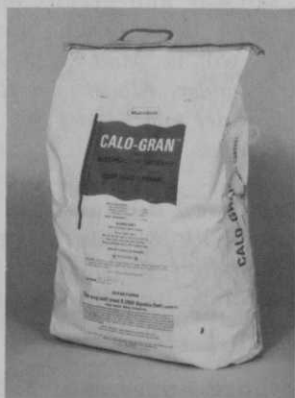
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color transparencies all the bags of Hercules' customers who package *Nitroform 38-0-0* under their own names.

J.M. Huber Corp. offers peat moss in bulk; *Michigan peat*, *Sphagnum Peat Moss Horticultural Peat Moss*, *Organic Top Soil* and all purpose *Potting Soil*.

Kaiser Agricultural Chemicals features #101 *Tee and Green Fertilizer*, #102 *Fairway Fertilizer*, #103 *Professional Ureafoam Nitrogen* and #104 *Professional Turf Fertilizer and Weed Preventer*.



Mallinckrodt Chemical Works offers a complete line of fungicides and herbicides which includes *Auragreen*, *Cadminate*, *Calo-Clor*, *Calo-Gran*, *Koban*, *Kroma-Clor*, *Ultra-Clor*, *Kromad*, *Phenmad*, *Spring-Bak*, *Thiramad*, *Thiramad-Plus*, *Po-San* and *Pre-San*. In addition, the company offers *Vitalon Light* and *Vitalon*

Dark, turf and ornamentals foliar colorants.

*Malter International Corp.

Milburn Peat Company, Inc., offers peat moss for top dressing greens and maintaining club grounds.

The Milwaukee Sewerage Commission offers *Milorganite*, a standard organic fertilizer.

Mock Seed Corp. makes the *Mock* line of grass seed for fairways, greens and tees. It also carries *Cura-Lawn*, a dry granular fungicide for prevention of snow mold.

Oil-Dri Corp. of America makes *Terra-Green Soil Conditioner*, which is designed to reduce compaction, increase water infiltration rates, provide better draining and circulating soil system.

Par Ex Professional Products, Swift Agricultural Chemicals Corp., makes a wide range of turf fertilizers which contain the new nitrogen source *IBDU* (isobutylidene diurea). This source of nitrogen is not dependent on temperature or bacterial activity, but on hydrolysis.

Penncross Bentgrass Assn. promotes a line of putting green grass seed, which was developed at the University of Pennsylvania.

Plant Marvel Laboratories makes the *Nutriculture* formulas for maintaining turf. *Bent Special 28-8-18* contains nitrogen in three forms for fast, medium and slow release. *Cal-Mag Special 25-0-20* is a source of calcium and magnesium, nitrogen and potash. *Lawn Marvel 28-18-8* is an all-purpose lawn and fairway feed. *Potash Special 10-20-30* is recommended to overcome a potash deficiency and to help overcome and prevent melting out and dollar spot. *Plant Marvel 12-31-14* is a starting solution for establishing new turf from seeds or stolons.

The Rudy-Patrick Company features turfgrass seed including *Penn-cross* bentgrass, *Pennstar* bluegrass, *Penfine* and *Manhattan* ryegrasses and *Highlight* chewing fescue.

O.M. Scott & Sons' ProTurf Div. offers 40 commercial products designed for golf course superintendents. Weed controls in the line include *Fertilizer Plus Dicot Weed Control*, *Fertilizer IV* and *Broad Spectrum Weedicide II* plus others. Fungicides include *Fertilizer Plus Fungicide* for brown patch, copper-spot, dollarspot, fusarium patch, leafspot, red thread and snow mold control and *Fertilizer plus DSB Fungicide*, a non-mercurial systemic fungicide for control and prevention of dollar spot and brown patch. Fertilizers include *Fairway Fertilizer* and *Fertilizer*.

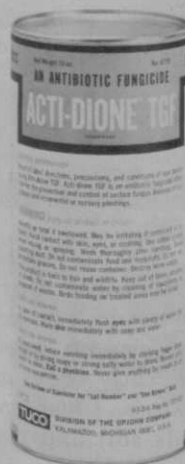
*S & D Products, Inc.

Stauffer Chemical Company makes *Aspon* insecticide for controlling cinch bugs. It is sold under various brand names. *Betasan* pre-emergence herbicide is used on greens, tees and fairways for control of crabgrass, hairy crabgrass, goosegrass, *Poa annua* and certain annual broadleaf weeds. It can be used on bluegrasses, fescues, bentgrasses, bermudagrasses, zoysiagrasses and other grasses.

Stewart Bros. Company offers a top dresser.

Swift Agricultural Chemicals Corp., see **Par Ex Professional Products**

*Turf-Terra Div., Koos, Inc.



Tuco, Div. of The Upjohn Company, will exhibit its new turf fungicide, *Acti-dione TGF*, for golf course

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*Information unavailable at press time



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tees, greens and fairways. The broad-spectrum fungicide is packaged in a readily disposable tear-top can and is recommended for the prevention and control of most turf diseases.

Union Carbide Corp. features the insecticide *Sevin* in sprayable or granular form and *Seven Mol-4*, which is with molasses.

U.S. Borax features *Maintain CF125* for the retarding of turf, control and elimination of broadleaf weeds and annual grasses.



U.S.S. Agri-Chemicals Div., United States Steel Corp., introduces *Vertagreen 19-5-9* fairway fertilizer, designed for use through rotary or drop spreader. Also included in the *Vertagreen* line are *Vertagreen 18-0-9* for fairways; *Tournament Plus*, a slow-acting granular fairway fertilizer; *Tee Green* for greens, tees and aprons, and *Weed & Fee for Professional Turf* for *Poa annua* and crabgrass control. *Vertanite Ureaform Fertilizer* is a long-feeding, slow-acting nitrogen fertilizer designed for greens, tees and fairways.

Velsicol Chemical Corp. offers *Banvel* herbicide for control of knotweed, chickweed, white clover, sheep sorrel, curly dock, dog fennel and other weeds. *Chlordane* insecticide controls soil and surface insects, such as grubs, Japanese beetle larvae, ticks, chiggers and ants, in lawns and turf. The company claims that it does not present a hazard to

humans or the environment. *Bandane* is a pre-emergence herbicide which combines crabgrass control, insect control and safety to desirable grasses, such as bentgrass, bluegrass, bermudagrass, zoysia, St. Augustine and centipedegrass. *Accutrol* is the company's new air emulsion spray system which is said to spray chemicals accurately with little loss into the environment.

Vineland Chemical Company offers *Vichem* turf products, sold under the trade names *Dal-E-Rad*, *Calar*, *Rad-E-Cate* and *Vi-Pex*.

Warren's Turf Nursery features *Warren's A-20* and *Warren's A-34* Kentucky bluegrasses. The A-20 has good to excellent resistance to *Helminthosporium*, stripe smut and powdery mildew and average resistance to *Fusarium roseum*. A-34 can tolerate up to 65 per cent shade and still grow well in the sun.

Accessories

Container Development Corp. makes the *Lewis Line* of accessories for the golf course. Included in the line are ball washers (four models), tee markers, fiberglass flagpoles, cup cutters, setters and pullers, plain or numbered flags in cotton or nylon and directional diagonal, pennant and checkered flags in cotton.

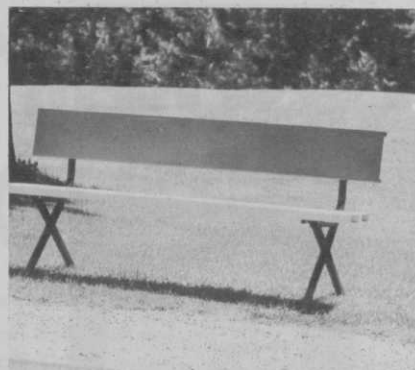
Fore-Par Mfg. Company carries golf ball shaped tee markers in red, white, blue or yellow as well as tee markers with the club insignia permanently silk-screened on the faced-off portion, available in the club's choice of colors. Tee plaques made of Reonite show hole number, par and yardage in relief and match tee marker colors.

Nelson Nameplate Company manufactures tee plaques.

Par-Aide Products makes a complete line of green and tee equipment, including ball washers, benches, flagpoles, flags, tee markers, cups and hole cutters and spike brushes.

Shur-Way Development Company offers divot fixers.

Standard Mfg. Company makes a portable tee console which functions



as a ball washer, tee data sign, *Spike Kleener* and *Litter Caddie*. It is available in yellow, red or avocado. A portable ball washer has a three-quarter capacity tank and comes in red, yellow or avocado. Steel plastic-coated tee benches come in colors to match the console and tee markers and are constructed of 16-gauge steel. The *Porta-Span* bridge is weather-proof and has a maximum vehicle load of 2,400 pounds or 15 persons. Bridge can be assembled by one man in two hours. *Litter Caddies* are available tapered with or without a turf spike and straight with a turf spike.

Other

***Mr. Chain, Div., M-R Products**

***Dacton Instrument Company**

Foley Mfg. Company introduces the *Model 384 Bed Knife Grinder* for gang, fairway and greens mower knives up to 32 inches long. On display also will be *Model 388 Lawn Mower Grinder*, *Model 398 Rotary Blade Grinder* and *Model 365 Lapping Machine*.

Hancor, Inc., subsidiary of The Hancock Brick & Tile Company, makes *Cor-flow* corrugated plastic pipe and fittings for golf course drainage systems.

***Lakeshore Equipment & Supply Company**

***The J.H. Spaulding Company**

Vandermolen Corp. makes *Rid-O-Ray* incineration unit for eliminating insects. The unit is powered by 110-volt house current. Insects, attracted to the light, are incinerated when by the electrically charged grid that surrounds the light. □

*Information unavailable at press time