

GCSAA

Those superintendents attending the Golf Course Superintendents Assn. of America International Turfgrass Conference and Show in Anaheim, Calif., will have an unprecedented opportunity to see innovations in virtually every facet of materials and equipment for turfgrass maintenance. Some of the changes have been dictated by OSHA regulations; others will reflect the influence of the ecological and the environmental movement. Economy of manpower and energy will loom big in machinery operations. Efficiency in the use of higher-cost seeds, fertilizers and chemicals will be evident in the new designs of spreaders, sprayers and seedbed preparation tools.

This preview of the attractions at the show admittedly must be incomplete, but it may be considered a general guide. Casual, haphazard wandering is not the way to glean the most out of the splendid and costly showings of merchandise. A cursory glance at a display while walking past a booth is no way to learn about the manufacturer's efforts to help the superintendent do a better job. Stop

and ask the attendant about his equipment. The exhibitors have spent large sums of money to acquaint you with the very latest—make them feel that their efforts have been justified.

Prominent among the displays will be those of the large equipment manufacturers. Each one will welcome your attention, so that you can evaluate the new designs and concepts. Here are some to look for.

Improved transportation for men and machines. Gasoline-powered three- and four-wheel "speedsters" are designed to get your crew to the far corners of the course quickly and cheaply. Manpower is too expensive to waste on walking.

Safety in machine design is something to ask about. Are gears, chains and sprockets protected to the extent that OSHA standards are met? Are noise levels low enough? Is the exhaust channeled away from the operator?

Recycling will play a big part in future golf operations. Grass clippings and tree trimmings will be blended in compost piles to be reduced to humus and returned to the ecosystem. Look for the silent chipper, which reduces noise pollution and can chew tree limbs, old lumber and asphalt blocks into chips for composting. For the economy-minded, there is a three-point hitch chipper that uses tractor power and is portable.

A "Soil Laundry" sounds like a far-fetched idea, but ask about it. Large-scale soil cultivation began about 1947. Since then, we've fussed with the debris that comes to the surface. Now, we can expect to see a machine that picks up the soil cores, pulverizes them, returns the soil as topdressing and collects the thatch and other debris for removal to the compost pile. The soil will be in better condition to receive lime, fertilizer and water.

The machine that is able to introduce new, improved turfgrass seeds into established turf without interrupting play and with a high degree of success, is one everyone, who doesn't own one, should see. With grass seed doubling and tripling in price, the emphasis will be on "how little can I use and still get results." The word is efficiency.

Fertilizers need to be used efficiently, too. We might be looking for a machine that will place fertilizer in the root zone under the surface, where erosion cannot move it to the nearest stream. Deep soil cultivation is the best approach to date.

Regulations in Government have encouraged fertilizer manufacturers to ship their products abroad where manufacturers get \$30 to \$40 more a ton. Hopefully, this will end when controls end, but be prepared to increase the fertilizer item in your budget.

Phosphates are difficult to come by, which may not be too serious in the turfgrass market because of excessive uses of phosphorus. Talk to the fertilizer people and get their view on the current situation.

Ask also about the availability of white powdered, soluble sulfate of potash that is sprayable without clogging nozzles. Rock-and gravel-polluted granular potash simply is not acceptable in this day and age when the word is quality.

Nitrogen will be discussed at many displays. It is essential to the production of good turf. When a mixed product is sold, ask for a complete breakdown of ingredients.

Irrigation equipment now is so sophisticated that it can be baffling to the untrained operator. In some cases, the safety element, such as lightning arrestors, has been neglected. A single bolt can knock out an entire system. Another thing

continued

to discuss with irrigation personnel is how the system will work with sewage effluent water. Also ask about how you can reduce water and still maintain good turf. This is a good question for the grass seed people, too.

Lime has been cast in the rôles of hero and villain at various times in our relatively short turfgrass history. In this day, we need to know more about the earth's own chemical resources to protect our turf. We avoid spoiling our environment with an overkill of powerful chemicals.

Grasses for turf are being developed and released at an astonishing rate. Merion, the first of the improved bluegrasses (1950) now is being challenged by cultivars from Alaska, Sweden, Penn State, N.J., Washington, Indiana and elsewhere. Penncross, the first improved seeded creeping bentgrass, developed at Penn State, now is being challenged by others that claim superiority. New red fescues claim better performance than Pennlawn, another Penn State release. Can the superintendent accept the advertising claims for each grass and be sure that, when it's planted on his course, it will outperform all others? Of course not. Now, more than ever, the nursery will be the focal point for evaluating each new grass under local conditions. Ask at the seedsmen's booths for samples for testing. Better yet, order enough for one-quarter or one-half acre and run a realistic trial on your course under play.

Metrics may be at the show in one form or another. Don't be surprised if some directions call for "grams per liter" or "grams per square meter." Scientific literature states measurements of height of cut in centimeters. Don't be surprised, be prepared.

Hydraulics are the main thrust of mechanized turfgrass maintenance. Hydraulic drives mean smoother, quieter performance, less downtime (no chains to break or gears to strip) and greater efficiency. But, check for potential leaks and blowouts. Hydraulic fluid can kill grass.

Pre-packaged chemicals for greater accuracy in application will be something to look for. Don't hesitate to ask about biodegradable containers which, when buried, decompose into harmless residues. An empty container can no longer be thrown on the trash heap, nor can it be burned. Ask the chemical

people what they know that can help you solve your problems.

Contract maintenance, contract weed control, contract liming and fertilization. These things are all being done in a limited way. Will they expand? Will these contracts lessen the responsibility of the superintendent? Can maintenance contracts keep courses in better condition at lower costs? The answers may not be forthcoming at the show, but there will be talk about contracts, so be ready to ask questions and exchange ideas.

New chemicals for weed control? For diseases? For insects? Not too likely, because we have not used our current arsenal effectively as yet. The variability of results might be traced to variations in other factors, which are operating in force. We've learned that timely applications of lime have an effect on the incidence of some turfgrass diseases. We know that lime cannot be considered as a fungicide, but it acts like one sometimes. Also, we might see granulated, dust-free lime on display. It will cost more than regular Aglime, but it might be worth it. It won't hurt to ask.

Chemicals designed to reduce the growth rate of turfgrasses will be a fit subject for discussion. Let's not forget our "foes"—*Poa annua*, nut grass, goosegrass and other hard-to-kill. Keep in mind the high cost of synthesizing a new chemical, formulating it, testing it, and finally, getting an approved label for it.

Solid-state ignition seems to be on the current state of affairs and could mean improved efficiency and less downtime. Ask your favorite manufacturer what it means to him and what it could mean to you. As I understand it, solid state means an end to breaker points, distributor heads, condensers and associated parts.

Ask manufacturers about *training schools* where a modest fee will allow you to learn how best to maintain and operate machines and power plants.

Stainless steel will be the order of the day in sprayers. Corrosion will be greatly reduced and cleanout will be facilitated. Ask about screens and the ease of removal when spraying with materials that have a tendency to clog.

Hydraulic application of materials is commonplace, but few courses can boast a hydroseeder. The hydroseeder can distribute materials hydraulically

with accuracy, speed and ease, in a way that will stop the ordinary sprayer cold. I shall be looking for a sprayer that can perform all functions, from spreading wood pulp mulch, seed, lime and fertilizer to the application of chemicals for disease and weed control.

Sand trap rakes are growing up. Look for attachments that will expand their usefulness, making them more of a utility tool. Some will boast "hydraulic down pressure" when used as a spiker. Convertibility and maneuverability are features to look for and ask about. *A new concept* for on-the-spot repairs is a *mobile service van* for emergencies. At this point there isn't much to tell, but ask around. It might be there.

We cannot pinpoint each and every "new" device, seed or material that will be seen at the show. We can hope that this discussion will be beneficial to the superintendent as well as the display by making the viewer more aware of what to look for.

In brief, ask about 1) safety features; 2) simplicity of design, and 3) efficiency of operation.

Now, more than ever, each superintendent is faced with the necessity of making adjustments in values. Every new device is going to cost more money. How it will work on your course with your budget must be your primary consideration.

See you at the show.

by FRED V. GRAU

PRODUCT GUIDE

GOLF CARS AND EQUIPMENT	59
IRRIGATION EQUIPMENT	59
MAINTENANCE EQUIPMENT	60
MAINTENANCE VEHICLES	61
MOWERS	62
TURF PRODUCTS	63
ACCESSORIES	82
MISCELLANEOUS	82
OTHER EXHIBITORS	82

GCSAA

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

GOLF CARS AND EQUIPMENT

Circle No. 106 on Reader Service Card

AMF/Harley-Davidson Motor Company, Inc., offers three- and four-wheel electric and gasoline cars. Four-wheel cars have independent front wheel suspension; rear wheels have coil springs, torsional stabilizer and hydraulic dampers. All models have maximum capacity of 750 pounds, low-profile, tubeless tires and welded tubular steel frame and molded fiberglass body. Full line of accessories available.

Club Car, Inc., features the four-wheel, electric *Caroche* and *Caroche Islander*. The *Caroche* has automotive steering, does 12 to 15 mph, has fiberglass body and aluminum frame. The *Islander* doubles as a resort commuter car for private road use. Has a 15 to 19 mph speed and is fully equipped.

Cushman Motors, OMC-Lincoln. Makes electric and gas four-wheel cars (*Town & Fairway*, *Gran Cushman-400*), electric and gas three-wheeler (*Gran Cushman-300*), electric four wheeler (*Trophy 400*) and electric three wheeler (*Trophy 300*). All models have steel body and frame with automotive steering. *Gran Cushman* models feature horizontal bag racks and brake warning buzzer.

ESB Brands Inc., featuring their new EV88 and EV106 golf car batteries with carrying handle for ease in installation.

E-Z-Go Car Company, Textron, Inc. Electric cars, three wheeled *X-444* and four-wheeled *X-440*, feature leaf springs and hydraulic shock absorbers, capable of 12 mph speeds. Gas models (*GX-440* with three wheels and *GX-444* with four) have two-cycle, single cylinder, air cooled engines, fully automatic forward and reverse drive and steel body and frame.

Pargo, Inc., offers the *Model 803*, three-wheeled car and *Model 804*, four wheeler, both electric. Features include automotive steering, leaf spring rear suspension; maximum speed is 11 mph, and both cars are made of reinforced fiberglass with choice of body colors.

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

IRRIGATION EQUIPMENT

Circle No. 107 on Reader Service Card

Aqua-Dial features new this year all brass electric valves (5166) and hydraulic valves (5160), in addition to the company's regular line of large area gear driven rotary sprinklers, automatic, electric and hydraulic controllers.

Cla-Val shows pressure control valves and back flow preventers.

Hays Mfg. Company, Div. Zurn Industries, Inc., exhibiting equipment for automatic sprinkling of fairways, greens and roughs; solenoid valves, electric controllers and sprinkler heads.

Johns-Manville Sales Corp. Agri-Turf Div., offers its *Binar* sprinkler system; central program system for sprinkler irrigation; a new line of golf carts.

Liqui-Trol Systems specializes in prefabricated pump systems (4,000 to 40,000) for golf courses.

Moody Sprinkler Company, Inc., offers its fully automatic controllers and valves. Sprinkler heads and central sprinkler programmer.

Rain Bird Sprinkler Mfg. Corp. *Rain Bird MC-1* is a dual program master controller with automatic syringe feature. *SC-11 Satellite Controller* with station multiplier.

Rain-O-Mat Sprinklers, Inc., has enlarged its entire line of pop-up rotary sprinklers, sprinkler heads, valves and controllers.

Skinner Irrigation Company offers a complete line of automatic irri-

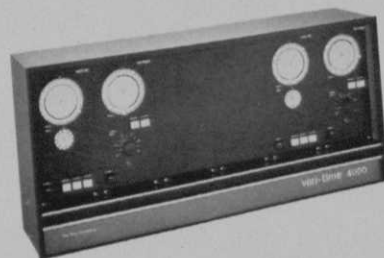
continued on page 60



Cushman



Club Car



Toro, Irrigation Div.

GCSAA

from page 59

gation equipment, featuring a revolutionary sprinkler arm to give even precipitation distribution.

Thompson Mfg. manufactures gear-driven rotary sprinklers in its *Commander Series*.

The Toro Company's Irrigation

Div., offers a complete line of automatic lawn and turf irrigation equipment. *Vari-Time 4000* central programmer has 14 models suitable for all kinds of golf course irrigation systems. *Toro Satellites* complete system. Sprinklers, *Series 630, 650 and 690*, have valve-in head, are available in hydraulic or electric. All equipped with a manual off-automatic control for each sprinkler, are pressure regulated. Series 650 and 690 have two kinds of two-speed sprinklers: one for single row application; the other for two row or

greens application.

Weather-matic Div., Telsco Industries, offers complete line of golf course irrigation equipment, including the *K-Series* rotary sprinklers, command/satellite control systems, *SSV* and *SSR-10* controls and electric valves.

MAINTENANCE EQUIPMENT

Circle No. 108 on Reader Service Card

Atwater Strong Company, Inc., offers the *MI-T-Trailer*, a 40 cubic-foot materials trailer.

Bunton Company features *Bunton* lawn and turf equipment and *Goodall* lawn and turf equipment. Trimmers and edgers with eight inch to 18 inch cuts. Self-propelled push mowers, from 18-inch to 22-inch, and riding mowers with power steering, from 21 inches to 52 inches.

The Champion Company introduces the *Champion End-Dump Trailer*, a hydraulic dump trailer with a three cubic yard capacity, rugged steel frame and two-wheel suspension. Also offered, the *Doo-All* trailer line.

Dedoes Industries, Inc., makes the *Dedoes Aerator* line in fairway and tee and green sizes. Convertible units available for slicing and spiking.

John Bean Div., FMC Corp. introduces an air crop sprayer with 40-foot swath coverage, PTO driven. Other spraying equipment include the *Turf-keeper* sprayer in several models, the *Rotocast*, *Rotomist* in four models, plus spray booms and other spraying accessories.

Gandy Company introduces the *Handy Gandy* measuring wheel for use on almost any surface; folds easily and comes in two models, *W-50* and *W-52*. Showing also the *Turf Tender* top dresser and lime applicator, new this year. Gandy spreaders, broadcast applicators and line tenders also available.

Giant-Vac Mfg. Company makes a complete line of vacuums with attachments; *Giant-Blo* blowers, from five to 65 hp, thatchers, *Giant Trail Vacs*

SMITHCO inc.
WAYNE, PENNSYLVANIA 19087

An EASY RIDER by any other name is not an EASY RIDER...

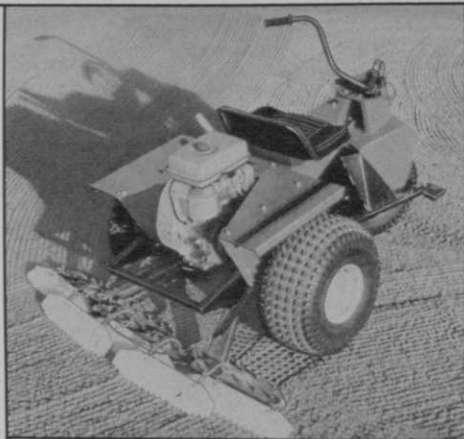
A new competitor has a trap rake that copies our 1973 **Easy Rider 2**. Our 1974 model, the **Easy Rider 10** (with 10 major advances) out performs any other trap rake. From **Easy Rider 2** to **Easy Rider 10**—our new trap rake is years ahead of its time, except in price.



NEW FEATURES

- | | |
|---|-------------------------------------|
| 1. RAKE DEPTH ADJUSTMENT | 6. Weather seal on gear shift lever |
| 2. Different torque converter | 7. Heavy duty rake suspension |
| 3. Stronger throttle control | 8. Stronger yoke & pivot post |
| 4. Heavy duty jackshaft bearings & brackets | 9. Two-piece high back seat |
| 5. Heavy duty drive belt and pulleys | 10. Higher Rake transport position |

For more information circle number 204 on card



Smithco



L.L. Larson



Ryan



John Bean, FMC



Cushman

and *Model 555 GT Giant Trac* turf truck.

Goodall Div., Bunton Company, features *Goodall* lawn and turf equipment. Trimmers and edgers with eight inch to 22 inch, self-propelled and riding mowers with power steering, from 21 inches to 52 inches.

Hahn-West Point Div. makes the four-inch *Aeri-Boy* aerator with one-fourth or one-half thatch spoons. Other aerators include the *Junior Aerifier*, *Grasslan Aerifier*, and *TM-80* and *TM-140* models. The *Vertifier* with core catchers and *Turf Plugger* also available.

Hayden Beatty Rambler, Inc., showing the *Beatty Hydraulic S-3-B* maintenance trailer with 7,000 pound dump capacity. Also, low deck height trailers and the *S-3-R Road King Utility Dump* series in off-road models.

Howard Rotavator Company makes the *Turf-Quaker* line of aerators in several models.

H. D. Hudson Mfg. Company offers *Peerless* power sprayers, *Industro* compression sprayers, *Porta-Flame* flame sprayers and *Trombone* slide-type sprayers.

Jacobsen Mfg. Company makes a full line of turf maintenance equipment, including mowers.

Kohler Company introduces to its line of engines a two-cylinder, 20 hp engine, *Model K532*. Also on exhibit will be four-cycle, cast iron, air-cooled engines, from four hp to 24 hp.

L.L. Larson Machine, Inc., features *Models 411, 421 and 413* broadcasters for applying fertilizer and grass seeds. Also, showing a complete line of sprayers for turf, shrub and tree maintenance.

Lindig Mfg. Corp. introduces a 160 hp, 16-inch brush chipper and an improved 15-cubic yard per hour shredder-screener.

The F.E. Myers & Bros. Company offers new the *TurfLine Fairway Sprayer*, featuring a 10 GPM DuAll pump, seven hp Kohler air-cooled engine with 300-gallon tank and high

flotation tires. There are 21 models in the *TurfLine* series; all have heavy-duty cast iron reciprocating piston pumps with pressures from 30 to 800 psi and liquid capacities to 36 GPM.

Royer Foundry and Machine Company introduces a self-powered wood chipper. Also showing the *Royer Shredder* (Model 120); *Powerscreens*, (Models 30 and 42). Also manually loaded shredders, soil shredders and chippers.

Ryan, OMC-Lincoln, introduces the *Greensaire II Core Processor*, which attaches to the *Greensaire II Aerator*. Cores are processed automatically. Also utility turf vehicles, disk spikers, top dressers/fertilizer spreaders, and other golf course maintenance equipment.

Smithco, Inc., introduces *Easy Rider III* trap rake, an improved model. Also *Thunderbird* and *Cardinal* sprayers. The *Cardinal* holds 200 gallons, is made of stainless steel and is equipped with a four-cylinder, radial 10 GPM pump. Accessories available.

Stewart Bros. Company, Inc., features the *Spread-All Top Dresser* in two models; new model is *WC-74*. Spreads five feet wide, has a 16 cubic foot capacity and is self-propelled.

Turf Vac Corp. introduces its *Model 70* vacuum, which can sweep both turf and pavement; available in five models. Also *Model FM-5 Lift Dump*, *Model GPU* self-propelled sweeper, *GTS* heavy-duty vacuum and *Model FM5* five foot wide turf sweeper.

Vandermolen Corp. introduces *Model 312W12 Diadem* brush chipper, an extra heavy-duty chipper that chips up to three-inch brush. Also, *Diadem* fertilizer spreader/seeder. *KWH* blowers and mistblowers and electric bug killers.

MAINTENANCE VEHICLES

Circle No. 109 on Reader Service Card

Cushman, OMC-Lincoln, makes the 18 hp *Turf-Truckster* in three or four wheel models; the 12 hp in a three-

continued

GCSAA

continued



Ford Tractor



International Harvester



Hahn



Roseman

wheel model. Available with accessories for a variety of turf maintenance jobs.

Ford Tractor Operations introduces the *Model 1000* tractor (to be shown with *Model 915*, 60-inch mid-mount mower). An extensive line of maintenance vehicles, including snow throwers, rotary tillers, back hoes, compact loaders, landscaping equipment, scrapers and diggers.

Hesston Corp. exhibits the 18 hp *Front Runner* grounds maintenance tractors and attachments; *Model 180* drives Hesston's retractable 80-inch batwing mower. Also, being featured are the *H200*, 19.8 hp and *H160*, 16 hp.

International Harvester Company introduces the 46 hp *International 2400A* industrial tractor, available in regular or *Lo-Boy* models; will be shown with 84-inch industrial mower with heavy-duty drive line and bumper-guard. *International 3200A Compact Loader* with quick change plate and 58-inch bucket. Also on exhibit: *International Cub 154 Lo-Boy* tractor with center-mounted rotary mower; *International 149 Cub Cadet* with new 50-inch wide rotary mower; *International 21-inch self-propelled push mower* with grass catcher; *Model 355 Power Washer*; *Model 59-P*, five hp shredder-grinder; *Model 2041* edger/trimmer; *Model 2046* grass trimmer; *Models 2037, 2038 and 2039* hedge trimmers.

Smithco, Inc., makes the *Red Rider* models of work carts.

The Toro Company introduces its *Workmaster Utility Vehicle*, the *Mobil Service Van*, which takes service to the customers; the *Sand Pro*, with a spiker for greens and landscaping rake added to this implement's standard facilities; the *Groundsmaster 72* with a new leaf mulcher (new this year); *Rake-O-Vac* sweeper has newly designed thatching reel. Plus Toro's full line of walking and riding mowers and tractors.

Vermeer Mfg. Company makes a complete line of heavy-duty maintenance and construction vehicles, including trenchers, rock cutters, vibratory plows, back hoes, augers, stump cutters, log chippers, log splitters and tree spades.

MOWERS

Circle No. 110 on Reader Service Card

Excel Industries, Inc., showing its *Hustler Multi-Mower XL-272* with dual hydrostatic drive; 18hp with Kohler engine.

Ford Tractor Operations introduces the heavy-duty *Model 917* flail mower, featuring three cutting blades—fine, medium and coarse—available in 62-, 74- and 88-inch widths. Also, four rotary walk-behind lawn mowers: a 21-inch rotary, a 19-inch push type, a 21-inch self-propelled and a 21-inch self-propelled mower with electric start.

Hahn, Inc., features the *Tournament Deluxe* and *Tournament II* greens mowers, for mowing, verti-cutting and spiking. *Flex-A-Matic*, a new five-gang, self-propelled reel mower, with a maximum cutting width of 11 feet, eight inches; can be used as a three or five gang unit. *Power Drag Model-PD-2* for greens matting.

Hahn features also the **Ransomes** line of mowers: *Versa-Cut* hydraulic gang mower (five or seven units) and other gang mowers as well as a 20-inch walk-behind greensmower.

International Harvester features an 84-foot wide industrial mower with heavy-duty drive line and bumper-guard (will be seen with *2400A Lo-Boy* tractor); center-mounted rotary mower, 50-inch rotary mower, and a self-propelled, 21-inch push mower with grass catcher.

Kinco Mfg. Company makes the *Contour GPM* machine, which mows, power rakes and slices; and the *Kinco Mountain Goat (KMG-38)* for rough area mowing; cuts 38-inches wide.

Locke Mfg. Div. features its greens mower, *Tri-Plex*, with fully articulated cutting heads for maximum ground contour tracking. *Locke Maxi-2*, 87-inch cut with hydrostatic drive.

Mott Corp. makes hammer knife safety flail mowers in either self-propelled or powered trail-behind models.

National Mower Company features a 25-inch, walk-behind power mower; a 30-inch riding mower; a 68-inch triplex mower and an 84-inch triplex mower.

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

Roseman Mower Corp. introduces the *Roseman* hydraulically driven reel mower in a seven-gang tractor mounted model.

Ryan, OMC-Lincoln, makes the 21-inch walk *Commercial Mower* with seven cutting heights, 1 inch to four, and with heavy-duty construction.

The Toro Company will offer a full line of walking and riding greens and fairway mowers and tractors fitted to the smallest and toughest jobs.

TURF PRODUCTS

Circle No. 111 on Reader Service Card

Agrico Country Club Products, Bishop Company offers the *Country Club* line of fertilizers, featuring formulations that fit into programs for more effective turfgrass management.

Applied Biochemists, Inc., makes *Cutrine-Plus* copper algaecide for controlling algae in lakes and ponds. Also, *Cutrine-Granular* for bottom growing algae and *Swimtrine*, a swimming pool algaecide.

Aquatrols Corp. of America makes *Aqua-Gro*, *Aqua-T* and *Aqua-Gro Granular* soil wetting agents. Also, *Stoma Seal* for control of wilt on tees, greens and fairways.

Certified Laboratories shows *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. showing *Dryene* and *Dexon* fungicides, *Dasanite* nematocide and *Dylox* and *Baygon* insecticides.

Chipman Div. of Rhodia, Inc., offers the *Chipco* line of chemicals: *Spot*

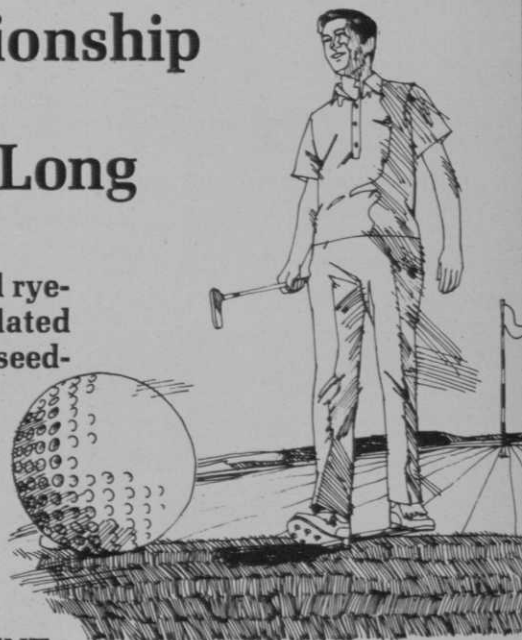
continued on page 64

Medalist 2®

SOUTHERN GOLF COURSE OVERSEEDING MIXTURE

For Championship Greens All Winter Long

A fine leaved perennial ryegrass mixture formulated especially for fall overseeding of bermudagrass greens. Proven reliability — over seven years of testing and research.



FAST ESTABLISHMENT

The fine leaved perennial ryegrasses in Medalist 2 germinate quickly and uniformly to provide a playable surface in the shortest possible time. Lessens the risk of wash-out and erosion.

DARK GREEN COLOR

Keeps its color even after hard frosts right on into early summer when bermudagrass comes back.

TRAFFIC TOLERANT

Withstands more heavy traffic than annual ryegrass and *Poa trivialis* formulations. Less wear around the cup and faster recovery from heavy play.

PUTTS TRUE

Smooth playing surface when you need it most—during winter when traffic is likely to be the heaviest. Unlike common ryegrass, Medalist 2 grows slower, more upright and does not stool in late season.

DISEASE TOLERANT

Tolerant to a wide range of turf diseases including cottony blight and dollar spot. Medalist formulas treated with KOBAN fungicide have shown almost complete resistance to *Pythium* during the seedling stage.

For more information circle number 143 on card

YES, I'm interested in more details about fine-leaved MEDALIST 2 Perennial Ryegrass:

(Name)

(Course or company)

(Business address)

(City)

(State)

(Zip)

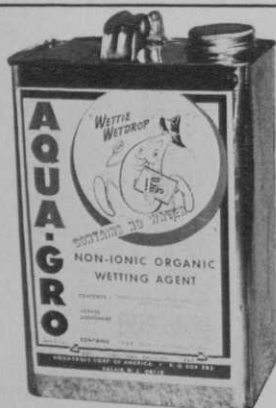
MAIL TO

Northrup, King & Co.
P.O. Box 370
Richardson, Texas 75080
Tel: (214) 235-8355





Milwaukee Sewerage



Aquatrols



Elanco

Kleen fungicide; Microgreen liquid metallic nutrient; Crab Kleen crabgrass killer; Turf Kleen and Bucril herbicides; Turf Herbicide D; Turf Herbicide MCPP and Chipco Spreader Activator.

W. A. Cleary Corp., showing Cleary's 3336 and Bromosan broad spectrum systemic fungicides. Also, Cad-Trete Granular fungicide for snow mold control; Grass Greenzit, MCPP, MCPP+2, 4-D herbicides; Spotrete 75 per cent thiram fungicide.

Cloro-Spray Corp. introduces Cloro-Spray Iron, a liquid product containing 4.2 per cent iron to prevent chlorosis. Also, wetting agents, liquid fertilizers, chelating agents, anti-desiccants, seed sprays, cleaners, specialty lubricants and lubrication equipment.

Diamond Shamrock Chemical Company announces new formulation changes in its chemical lines, pending EPA approval. Also, Dacthal W-75 and Daconil 2787 now are available as flowable liquids. In addition, Daconate and Dacamine herbicides will be shown.

Dow Chemical Company offers Dursban 2E insecticide for control of chinch bugs, sod webworms and insects on shrubs; Zectran 2E emulsifiable concentrate, multi-purpose insecticide for control of snails and slugs, and Fumazone nematicide.

E.I. DuPont de Nemours & Company, Inc., offers the Tersan Disease Control Program: Tersan SP, Tersan 1991 and Tersan LSR turf fungicides.

Eagle-Picher Industries, Inc., makes Dialoam Super Fine soil conditioner especially designed for top dressing and Dialoam Adiomaceous earth soil conditioner.

Elanco Products Company makes Treflan ornamental pre-emergence herbicide and Balan granular turf herbicide.

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

Loft-Pedigreed Seed Company, Inc., features certified Kingstown Velvet bentgrass; certified Baron Kentucky bluegrass; Jamestown red fescue; Exeter Colonial bentgrass and Manhattan perennial ryegrass.

3M Company makes aquatic algaeicides under the Mariner name: Mariner System A for plankton algae, Mariner System M for filamentous algae.

Mallinckrodt Chemical Works introduces Fungo systemic turf fungicide and Emblem fairway weed herbicide. Other products include: Auragreen and Cadminate fungicides; Calo-Clor mercuric chloride fungicide; Calo Gran dry granular mercuric fungicide; Koban fungicide for Pythium; Kroma-Clor fungicide; Kromad fungicide; Tres-San broadleaf weedkiller; Thiramad fungicide for brown patch, dollar spot and snow mold; Tobaz systemic fungicide; Pro-San fungicide for Poa annua; Pre San preemergence herbicide and Vitalon foliar colorant.

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

Merck Chemical Division features Mertect 140-F ornamental and turf fungicide.

National Chemsearch showing Fenocil sterilant; Grotard growth retardant; Watrol aquatic weed killer; Ferate, a liquid iron compound. Plus, Nimrod portable sprayer with 3½ hp gasoline engine.

Oil-Dri Corp. of America makes Terra-Green Soil Conditioner; Terra-Green Special Top Dressing and Terra-Green Jumbos.

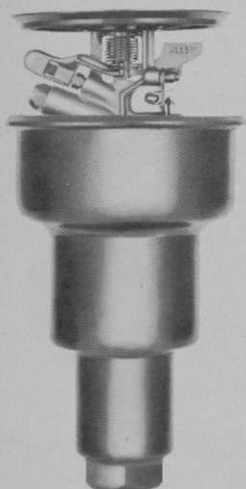
Par Ex Professional Products, Swift Agricultural Chemicals Corp. Features IBDU controlled release nitrogen.

Plant Marvel Laboratories offers free a 25-pound bag of water-soluble Bent Special to every superintendent. Also, the Nutriculture formulas, containing sequestered trace elements, for liquid feeding of turf. Dissolves totally in water.

ProTurf Div. of O.M. Scott &

continued on page 66

Impact of excellence



The major effect of building a better product is the increased capability of the user of that product to do a better job. Excellence begets excellence!

The Moody Impact Pop-Up Sprinkler for large area sprinkling provides the extra measure of efficiency for grounds maintenance men. Special features include: built-in surge protector to prevent head damage ... exclusive high flow stainless steel spindle ... exclusive long wearing Turcite and Turcon thrust bearing washers ... parts standardization, with parts for full and part circle heads completely interchangeable ... positive reversing mechanism ... retracting spring to insure positive pop-down when water is turned off ... outer sweep and inner sweep nozzles set at dissimilar angles to prevent stream interference ... completely removable internal assembly from above ground for easy field maintenance.

It is a product of excellence; ergo, it does an excellent job!

Write for our catalog.

MOODY

"Rainmaster"

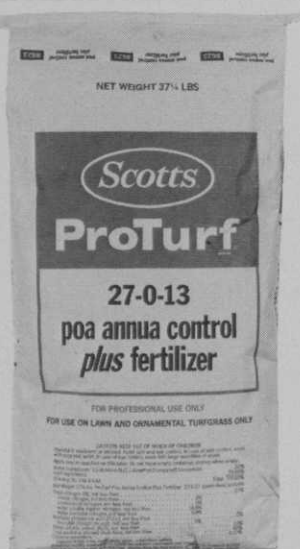
MOODY SPRINKLER CO., INC.

3020 Pullman Street
Costa Mesa, Calif. 92626
714/556-8730

For more information circle number 216 on card

GCSAA

from page 64



Pro Turf Div., O. M. Scott



Tuco



DuPont

Sons introduces *Systemic Fungicide*, a ready-to-use granular that can be applied with a rotary or drop-type spreader. Also new is *Scotts ProTurf Professional Rotary*, a push-type rotary spreader, featuring high flotation tires, hopper extension doubling capacity and completely enclosed drive mechanism. In addition, the complete line of *ProTurf* fertilizers, fungicides, weed controllers, insecticides, seeds and equipment will be shown.

The Rudy-Patrick Company is featuring *Emerald Variety* creeping bentgrass for greens, fairways and tees.

Stauffer Chemical Company offering its turf chemical lines: *Aspon* for turf and general use; *Betasan* herbicide for turf; *Imidan* insecticide for trees; *Vapam* and *Eptam*.

Tuco, Div. of The Upjohn Company, exhibits its insecticide, *Proxol 80SP*, recommended for controlling sod webworms, cutworms, chinch bugs. Also, *Acti-dione TGF* broad spectrum fungicide for controlling most turf diseases on bentgrass, Kentucky bluegrass, Merion bluegrass, fescues, bermudagrass and St. Augustinegrass.

USS Agri-Chemicals, Div. of U.S. Steel Corp., introduces *Fertilizer for Professional Turf with Balan 17-0-8*. Also, the *Vertagreen* line of fertilizers: *Tee Green Plus 16-0-8*; *Tee Green Tech. Turf Food 16-4-8*; *Vertanite 38-0-0*; *Tournament 25% UF 18-0-9*; *Fertilizer for Professional Turf 12-4-8* and *Tournament Plus 48% 19-5-9*.

Velsicol Chemical Corp. *Heptachlor* and *Chlordane* soil insecticides; *Banvel plus 2,4-D* turf herbicide; *Banvel 4S* herbicide; *Bandane 15G* in granular formulation; *Phosvel* soil insecticide, *Sustar* plant growth regulator and *Accutrol* emulsion spray system.

Warren's Turf Nursery carries *A-20* Kentucky bluegrass, a highly disease resistant strain, and *A-34* Kentucky bluegrass for shade tolerance.

Whitney-Dickinson Seeds, Inc., world-wide marketers of Manhattan perennial ryegrass. Also, offering

continued on page 82

GCSAA

from page 66

Pennfine ryegrass, Pennstar and Galaxy Kentucky bluegrass.



Diamond Shamrock



Cyclone Seeder

ACCESSORIES

Circle No. 112 on Reader Service Card

Container Development Corp. carries the *Lewis Line* of accessories for golf courses, including tee markers, flags, poles and ball washers.

Fore-Par, Inc., features a line of *Elasto-Signs* and *Elasto-Tee Markers*, made of a new material that is virtually indestructible.

Mr. Chain, Div. of M-R Products, Inc., makes fence chain, long pegs, connecting links and ball tops made of thermal plastic. Also, tee and hazard markers, post-and-base units and short pegs.

National Chemsearch introduces *Super Genie* parts washing system for pro shop or maintenance barn.

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

Plasti-Chain Corp. makes polymer chain in various sizes and colors, in chain, S-hook or connecting link.

Standard Mfg. Company introduces a complete assortment of *Miralink* plastic chains and steel stakes and a complete assortment of a new line of flags made from Venti-knit, a non-raveling material. Also, a complete line of standard golf course equipment.

MISCELLANEOUS

Circle No. 113 on Reader Service Card

American Hose & Reel Company makes thermoplastic spray hose for heavy-duty work. Also, applicator tubing for liquid fertilizers.

Certain-teed Products Corp., offers their new *PVC* line of plastic piping for irrigation systems.

The Cyclone Seeder Company, Inc., introduces *BSSB Rotary Broadcast Spreader* in deluxe model with tubeless balloon tire, stainless steel construction, except frame. Also, a complete line of seeders.

Foley Mfg. Company presents a new version of the *Model 384 Bed Knife Grinder*. The new unit has a longer bed and faster set-up. Also, *Model 388* lawn mower grinder; *Model 365* lapper; *Model 394* saw chain grinder; and *Model 398* rotary blade grinder.

Hancor, Inc., subsidiary of Hancock Brick & Tile Company, features 2-inch, 4-inch, 6-inch and 8-inch corrugated plastic drainage tubing with fittings for golf course greens, tees, sand traps and fairways.

Lakeshore Equipment & Supply Company carries replacement parts for maintenance equipment and private label *Lesco* products.

R & R Products makes replacement

blades for golf course maintenance equipment.

*OTHER EXHIBITORS

Circle No. 114 on Reader Service Card

Ametek, Inc.
Aquashade, Inc.
Batrow Laboratories, Inc.
Briggs and Stratton Corp.
The Broyhill Company
Bruce Manufacturing Company, Inc.
Chewings and Creeping Red Fescue Comm.
Coursigns, Inc.
Davis Manufacturing
Edwards Manufacturing Company
Flymo
Ginther Equipment Corp.
Griswold Controls
HMC
Hydro-Rain, Inc.
International Spike, Inc.
Kem Manufacturing Company
Laval Separator Company
The Maltby Company
Melnor Industries
Monsanto Company
L. R. Nelson Corp.
Nelson Nameplate Company
Occidental Chemical Company
Onan, Div. of Onan Corp.
Pen-Gro Sales Company
Turf-Terra, Div. of Koos, Inc.
Venable Sprinkler Sales, Inc.
Vitamin Institute
White Turf Engineering
York Modern Corp.
Olathe Mfg. Company

*At press time the GCSAA informed GOLF-DOM that the following companies would be at the show. However time did not permit the printing of information on their product lines.

GCSAA CONFERENCE EDUCATIONAL PROGRAM PLANS

"Out of the Past Comes the Future," is the motif of the 45th Annual International Turfgrass Conference and Show, featuring prominent speakers from among the ranks of golf course superintendents, research scientists and other members of the golf industry, announced Theodore W. Woehrle, chairman, Educational Committee of the Golf Course Superintendents Assn. of America. This GCSAA-sponsored event will be held at the Anaheim Convention Center, Anaheim, Calif. February 10 to 15.

WHAT TO DO AND SEE IN *Anaheim*

Anaheim is a major tourist and convention city. Located about 28 miles south of Los Angeles, it is the largest city in Orange County, itself a vital and growing area. Many attractions vie for the visitor's attention. The most famous of these is Disneyland, which alone offers 54 attractions, 30 restaurants and food facilities, 50 shops, and a wide range of accommodations and exhibits.

The weather in Anaheim averages a comfortable 70 degrees, so visitors should dress accordingly.

RESTAURANTS

The following is a sampling of the better-known restaurants in Anaheim and its environs.

ANAHEIM

Anaheim Hyatt House, 1700 S. Harbor Blvd., 772-5900. Specializes in Roast Prime Rib of Beef and choice steaks, Veal Cordon Bleu, Alaskan King Crab Legs, Tournedos, Spanish Scampi. Breakfast, lunch, dinner everyday. Brunch on Sunday, 11 a.m. to 2 p.m.

Carl's Jr., 1200 N. Harbor, 774-5796. Six varieties of hamburger. Daily, 10 a.m. to 10 p.m.

Golden Pheasant, 1168 S. State College Blvd., 776-9310. Continental cuisine, Prime Rib of Beef and Steak Lobster combination. Dinner every night; lunch on weekdays. Champagne brunch on Sunday, 11 a.m. to 2:30 p.m.

Jolly Ox, Ball Rd. at Santa Ana Freeway, 956-3250. Old English atmosphere.

The Kettle Restaurant, 1776 W. Linchon, 774-5557. Early American atmosphere. Features Prime Rib, choice steaks, seafood, Boston Shore Dinner. Reservations recommended.

Knowl-Wood, 1521 Imperial Highway, 528-8990. Specializes in hamburgers. Open Monday to Thursday, 10 a.m. to 8 p.m.; 9 a.m. on weekends.



Li's Restaurant, 314 N. Beach Blvd., 527-9445. Oriental cuisine. Specializes in Goo Low Yok, Chow Ming Yung, Lobster Chow Don, Cashew Nut Chicken. Open daily; Friday and Saturday, 11:30 a.m. to 2 a.m.

Oak Room, Disneyland Hotel, 535-8171. Brochette of Filet Mignon, Steak/Lobster Combination, Chicken Veronique, Broiled Australian Lobster Tail are specialties. Outstanding wine list, French pastries. Open Tuesday through Saturday evening.

Old Belgium, 1126 N. Anaheim Blvd., 635-6661. French cuisine. Excellent wine list.

Polynesia Luau, 218 W. Lincoln Ave., 956-5600. Polynesian, American, Far Eastern cuisines. Open daily for lunch; Friday, Saturday, 6:30 to midnight. Reservations recommended.

Three Greenhorns, 616 Convention Way, 638-2862, 534-8611. Continental and Oriental cuisines. Lunch: 11:30 a.m. to 3 p.m., Monday to Friday; dinner, 4 p.m. to 10 weekdays; 5 p.m. to 11, Saturday; Sunday brunch, 10 p.m. to 3 p.m.

FULLERTON

The Celler Restaurant, Villa Del Sol, 305 N. Harbor Blvd., 525-5682. Continental fare. Dinner only, from 5 p.m., Monday through Saturday.

Dal Rae, 2151 N. Harbor Blvd., 870-1711.

Continental cuisine. Dinner seven nights; lunch Monday through Friday.

La Paz, 305 Harbor, 871-9141. Mexican cuisine. Dinner, 5 p.m. to 10 weekdays, to 11 weekends. Luncheon, 11:30 to 2:30 daily.

The Velvet Turtle, 1450 N. Harbor Blvd., 871-9340. Lunch, 11:30 Monday through Friday.

SANTA ANA

Benjie's, 1828 N. Tustin, 541-6263. Kosher food. Breakfast, lunch, dinner, seven days, 7 a.m. to 11 p.m.

Bullock's Estrekka Room, 1 Fashion Square, 547-7211. Camelot, 1100 S. Grand, 542-2000.

Kam's Restaurant, 1421 E. 17th St., 558-2626. Oriental. Seven days.

Kono Hawaii, 226 S. Harbor, 531-1232.

Lorenzo's, 2101 E. Edinger, 835-2577. Seven days, 5 p.m. to 11, Monday through Thursday, 5 p.m. to midnight, Friday, Saturday, 4 p.m. to 10, Sunday.

Nieuport 17, 1615 E. 17th St., 547-9511. Dinners, 5 p.m. to 11 seven days. Lunch, 11:30 to 4 p.m. weekdays.

Petit Auberge, 3800 S. Plaza, 540-3641. French cuisine. Daily, except Sunday.

Riviera Restaurant, South Coast Plaza, 540-3840. Monday through Saturday, 11:30 a.m. to 3 p.m.; 5 p.m. to 11:30.

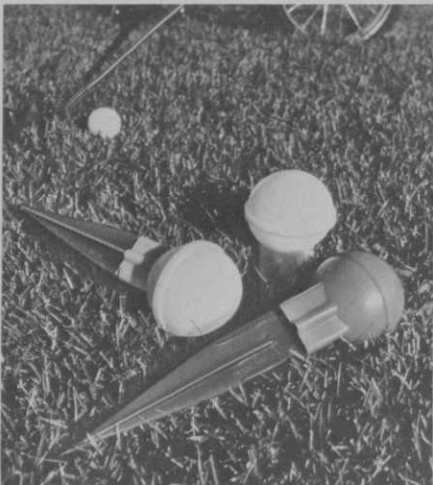
Saddleback Inn, First St. at Santa Ana Freeway, 835-3311.

Steak and Ale, 2201 E. First St., 547-0709.

WHAT TO SEE

Disneyland. One of the most expensive fantasy lands ever conceived, Disneyland is a world unto itself. Since 1955 more than 110 million people have visited it. In addition to the well-advertised "lands"—Tomorrowland, Fantasyland, Frontierland, Adventureland, Bear Country—there is the latest attraction, "The Walt Disney Story," highlighted by a film, memorabilia and photographs from the Disney family

continued on page 68



More advantages! Lower cost! Zero maintenance!

Mr. Chain® golf course Plastic Fencing and Tee Markers

Chain, Pegs, and Ball Tops in all sizes for easy assembly into decorative fencing for bordering flowers, lining sidewalks, and serving as barriers to keep carts off tees and greens and out of streams and marsh areas.

Short Pegs for staking sod and for use with plastic chain to support new tree planting.

Tee Markers as well as markers for water, lateral hazards and out-of-bounds demarkations.

Maintenance-Free plastic fence components are strong, rustproof, non-conductive, lightweight, durable, easily installed, and inexpensive.

See us at Booth No. G 17-18 at the 45th International Turf Conference and Show February 10th through 15th.

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Division of
M-R Products, Inc.

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For more information circle number 213 on card

ANAHEIM *from page 67*

archives. The season in winter runs from September to June, 10 a.m. to 6 p.m., Wednesday through Friday; 9 a.m. to 7 p.m., Saturday and Sunday. Closed Monday and Tuesday.

Knott's Berry Farm, 8039 Beach Blvd., Buena Park, 827-1776. The Ghost Town is a reproduction of a mining town of the early 1800s. Fiesta Village contains Gypsy Camp and the John Wayne Theatre. There is also a full-size replica of Philadelphia's Independence Hall. Cordelia K is a white side-wheeler. Eating is taken care of by the Chicken Dinner Restaurant or Steak House; there also are many short-order snack stands dotting the area.

Japanese Village, 6122 Knott Ave., Buena Park, 522-8353, 523-2381, 944-7811. There are numerous shows and attractions here to entice adults and children alike. Tiger Show includes Bengal, Siberian and Sumatran tigers performing without gun, whip or chair; Dolphin Show in the 2,500 seat Sea Theatre; Karate Exhibition performed by experts. Bear Show, Sea Lion Show, Samurai Show, Japanese Tea Ceremony, Mingei Craft Center, are other entertainments. Hours: 10 a.m. to 5 p.m., closed Friday. Admission for adults: \$3.25; parking, \$.50 a car.

Lion Country Safari, Irvine Ranch, 553-2692, 879-2692. A 485-acre tract makes up this unusual "zoo," which allows motorists to view unobstructed free-roaming lions, elephants, cheetahs, rhinoceros, giraffes, zebras, hippos, primates and many species of antelopes and birds. (The Lion area, until recently, was the home of Frazier, the sensuous lion.) Included is Safari Camp where visitors may ride on a Zambezi River Cruise, the African Express miniature railroad, or hippo-shaped pedal boats. Also there are the Rondavel Restaurant, Native Village, a bazaar with African artifacts and a Jungle Playhouse. Open every day, until sundown.

TRANSPORTATION

Air: From the International Airport, Orange County and Long Beach Airports:

Airport Service, Inc., 776-9210, provides coach service to the airports; schedules about every 30 minutes to Anaheim. **Bus:** **Greyhound** maintains offices in Anaheim, 635-6800. □

CONVENIENT SHOPPING

For more information about the products advertised in the pages of **GOLFDOM**—use the postage-paid Reader Service Card in this issue. Just circle the number appearing in the ad on the Reader Service Card, which you will find in the front of this issue.