## **Great Wood Shots** Are Hit Off Agrico<sup>®</sup> Fairways

That's because golf superintendents rely on Agrico Country Club Fertilizers for the tough job of helping keep big fairways smooth, thick and weed-free.

Golfers just naturally feel more confident when using wood or iron shots on thick, plush fairways. It brings out the best in their game . . . keeps them enthusiastic about your course. A golf superintendent's dream. Write us about Agrico's Custom-Tailored Golf Course Program.

Maybe we can make your dream come true.



## **AGRICO<sup>®</sup> COUNTRY CLUB FERTILIZERS**

AGRICO Chemical Company, Memphis, Tenn. 38117 Division of Continental Oil Company • Phone (901) 682-1561 Sales Office: Carteret, N. J. 07008 • Phone (201) 541-5171

See us at Booth #B-32 International Turfgrass Association For more information circle number 181 on card



## GCSAA

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matically inject a pre-set ration of fertilizer solution in direct proportion to the water flow.

E. I. DuPont de Nemours & Company, Inc., introduces two fungicides—Tersan LSR and Tersan SP. Tersan LSR is a nonmercurial turf fungicide for the



prevention and control of large brown patch, rust and leaf spot. Tersan SP is also a non-mercurial fungicide, but for the control of snow mold and pythium.

**Eagle Picher** makes Dialoam, a turf conditioner composed of a granular diatomite material.

Elanco Products Company makes Balan Granular, a preemergence weed killer, which is said to control *Poa annua*, crab-



grass and other annual weed grasses from germinating and growing.

Hercules Inc., introduces Azak, a crabgrass control designed for pre-emergence application on established lawn and other turf areas.

Powder Blue in fine, insoluble powder form is a slow-release nitrogen fertilizer for turf.

Nitroform fertilizer combines the proper amounts of ureas and formaldehyde for use on turf and ornamentals.

Hudson Mfg. Company offers the 200-gallon Peerless Power Sprayer with stainless steel tank and flotation tires. A wide range of accessories is available.

#### J.M. Huber Corp.\*

Kem Mfg. Corp. offers a complete line of turf maintenance chemicals featuring the "one shot" turf treatment containing nutrients, micro-nutrients and soil conditioners in a stable homogenized blend.

Norkem 100, 200 and 300 are compatible chemicals that can be blended to rate desired. In addition, there is a selection of herbicides for weed control, grass control and soil sterilization.

Also developed by Kem is a line of preventative maintenance materials as well as protective coatings for all equipment used by superintendents.

Mallinckrodt Chemical Works introduces the Spray-Hawk mobile turf sprayer with positive onoff spray with pistol grip control. No-drip nozzles automatically close when pressure falls below three psi. Made of corrosion-re-

\*Information was not available at press time

sistant steel tubing, it cuts misting and wind drift to a minimum.

Also offered are turf chemicals: Kroma-Clor broad-spectrum turf fungicide with mercury, Ultra-Clor broad spectrum fungicide without a color ingredient. Kromad broad-spectrum fungicide, Calo-Clor mercuric-mercurous chloride fungicide, Calo-Gran dry granular mercurial fungicide, Cadminate cadmium fungicide, Thiramad-Plus fungicide combining 75 per cent thiram component and 10 per cent iron sulfate, Thiramad 75 per cent thiram fungicide, Phenmad 10 per cent PMA organic mercurial fungicide, Spring-Bak for control of spring dead spot of bermudagrass.

Millburn Peat Company will exhibit its peat moss for new green construction, top dressing and landscaping.

Milwaukee Sewerage Commission offers Milorganite Fertilizer, a standard organic fertilizer for golf courses.

The F. E. Myers & Bros. Company introduces the model series 7020 turf sprayers. This series consists of six trailer models with electric start engines or power take-off drive. Models are available in 300 to 400 and 500 gallon tanks with 20 gpm Myers spray pumps or the optional 10 gmp piston pump for pressure ranges to 800 psi.

Additionally, Myers will show for the first time, Mity-Mist PTO air sprayer designed for multiple chemical applications in turf club maintenance.

National Chemsearch Corp. introduces its new Computerized Soil Analysis Program designed to provide fertilizing tailored to specific turf and soil needs. Soil analysis results from its agronomist are fed into National Chemsearch's IBM System 360 Computer to determine specific turf

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### GREENSAIRE



Self-Propelled. Coring aerator. Removes soil cores on 2" centers (36 per sq.ft.), over 3" deep.

### MATAWAY

TRACAIRE



Large area turf aer-

ator for level ground. Interchangeable tines for coring, slic-

ing, renovating.

Heavy duty, self-propelled. Power rakes, deep slices, disc spikes for triple turf treatment.

purpose coring aerator. Removes cores on approximately 5" centers.

Self-propelled disc

spiker for relieving

compaction, open-

ing turf for fertilizer,

fungicides, etc.

Self-Propelled all-

## MOTORAIRE

SPIKEAIRE

## SOD CUTTERS

## Self-propelled Heavy Duty (5 widths) and JR Units (2 models). World's most widely used cutters.

## ROLLAIRE

Self-Propelled. All-purpose. For seeding, sodding, leveling. Use to roll blacktop, tennis courts, etc.



#### SPREAD-RITE

Self-propelled top dresser and fertilizer spreader. Handles sand and salt, too.



## **REN-O-THIN**

Self-Propelled. Power rakes thatch. Loosens soil for seeding. Pulverizes and spreads aeration cores.



### RENOVAIRE

Large area turf aerator. True contour design for rolling and level turf areas.

#### SOD HARVESTER



Mounts on tractor. Mechanizes sod harvesting from cutting to truck.



Large area thatch remover, turf sweeper and flail mower.

## **Build healthier, more attractive lawns** and turf with Ryan Equipment

World-famous Ryan equipment can help you grow tougher turf, greener turf, healthier, springier turf. Hundreds of the world's finest golf courses keep greens and fairways in top playing condition with Ryan turf maintenance equipment. Thousands of states, municipalities, institutions, industrials and many rental operators depend on rugged Ryan equipment as the most efficient in building greener, healthier turf and lawns.

Aerate. Spike. Slice. Renovate. Control thatch. Cut and harvest sod. Top dress. Fertilize. No matter what job you have to do, depend on Ryan equipment to outperform all others.

For information on all the above Ryan turfcare products write for the new full-color "Turf Equipment" catalog.

Why not do it today?

RYAN EQUIPMENT COMPANY 2055 White Bear Avenue

St. Paul, Minnesota 55109 Telephone 612-777-7461 SUBSIDIARY OF OUTBOARD MARINE CORP. For more information circle number 174 on card

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requirements and assure more dramatic results with whatever labor and time a turf care program now has available.

In addition, National Chemsearch offers a complete line of liquid fertilizers, herbicides, fungicides, penetrants and supplementary fertilizers.

#### Northrup King & Co.\*

Occidental Chemical Company, makers of turf products and custom-formulated fertilizers, introduces Zipp, a turf fertilizer using polyphosphate. It also contains chelated iron and zinc plus sulphur.

\*Information was not available at press time

**Oil Dri Corp. of America** introduces Terra Green Special Top Dressing in addition to its Terra Green Soil Conditioner.

#### Pen-Gro Sales Company\*

Plant Marvel Laboratories makes 100 per cent water soluble and liquid fertilizers.

**Rhodia, Inc.**, Chipman Div., has a wide variety of dry and liquid products for use on golf courses and other turf areas. Chipco products include fungicides, insecticides, weed killers and wetting agents.

**Rogers Mfg. Company**, subsidiary of Jacobsen, offers the Sprayer, featuring a 130-gallon tank, high pressure centrifugal pump powered by a shock mounted five hp engine. The 15-foot spray boom comes equipped with 18 spray nozzle assemblies. Scotts introduces four new Polyform fertilizers—ProTurf Fertilizer for balanced feeding, Nitrogen Fertilizer for an all-nitrogen feeding, Nitrogen Plus Plant-Available Iron for iron-deficient soils and Super Fertilizer for extra-long lasting feeding. Other Pro-Turf products include weed controls, insecticides, fungicides and seeds. In addition, Scotts also makes the Model 100 and Rotary type spreaders and the Silent Scotts handmower.

Smithco, Inc., introduces the Spray Mate spray outfit for spraying greens and tees and other special turfgrass areas. It consists of a 65-gallon tank, a Hypro pump capable of developing 500 pounds pressure, a nozzle, hose and 15foot boom. It is completely self contained on four wheels so that it can be pushed into the back of the *continued on page 86* 



For more information circle number 205 on card

## Betasan gives long-lasting control of unwanted grasses and weeds

Now is the time to treat greens, tees and fairways with Betasan selective herbicide to prevent fall *Poa* germination. An application now will also control crabgrass next spring and summer.

Betasan controls fall-germinating broadleaves, too, such as henbit and shepherdspurse.

Use Betasan in bentgrass, bluegrass, fescue, Bermudagrass, dichondra and more than 35 ornamentals.

Betasan liquid or granules will stop unwanted growth by interfering with the sprouting seeds. It gives you effective, economical and long-lasting protection. Stop infestations now, give your grass a chance to fill in during fast-growing periods of cooler weather.

Betasan is kind to established turf, including dichondra, without leaving tell-tale burn often resulting from weed control treatment. For best results, use Betasan correctly by following directions exactly.

Get Betasan from your golf supply distributor today. Stauffer Chemical Company, Agricultural Chemical Division, Dept. HD, 299 Park Avenue, New York, New York 10017.







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Red Rider by one man. List price is \$750.

The Red Rider for 1970 has been completely engineered so that maintenance will be minimal.

Stauffer Chemical Company offers the following crop protection chemicals: Aspon, to control chinch bugs on lawns and turf; Betasan, for pre-emergence control of crabgrass and annual bluegrass; Eptam, for the selective control of several hard-to-kill perennial weeds, annual grasses and many annual broadleaf weeds; Trithion, a multi-purpose insecticide for lawns and turf; Vapam, a soil fumigant which controls weeds, weed seed and certain soil-borne diseases.

Swift Agricultural Chemical Corp. makes Par-Ex Supreme, a complete plant food for greens, tees and fairways which contains a patented source of nitrogen.

Swift also offers a complete line of Par-Ex pro turfgrass products and services for professionals.

Thuron Sprayer Mfg. Company introduces the Thuron Brama-25 for 1970. It has a 25 gpm at 800 psi featuring the Brahma-25 pump. It has a 300-gallon fiberglass tank with mechanical agitation and is powered by a balanced Wisconsin TJD, 18hp engine or tractor PTO.

Also new is the Thuron Super Lark, a 10 gpm at 400 psi with five hp engine and 110-gallon fiberglass tank with mechanical agitation. Easily loaded and carried by two men and fits all trucksters, trucks and pickups, it is available with 16-foot swing-away spray boom.

The Thuron Hawk is a 10 gpm at 500 psi with the Eagle-10 pump.

**Tuco**, Div. of The Upjohn Company, manufactures Acti-dione turf fungicides. The Acti-dione line of broad spectrum fungicides is recommended for the prevention and control of most turf diseases on bentgrass, Kentucky and Merion bluegrasses, fescues, bermudagrass and St. Augustine-grass.

**USS Agri-Chemicals** offers a complete line of Vertagreen turf foods and Vertagard turf protection chemicals. For tees and greens, Vertagreen offers Tee Green and Ureaform, for fairways there is Vertagreen Tournament Plus, Tournament and Weed & Feed, for special purposes there is Vertagreen fertilizer.

In the Vertagard line there are herbicides—MCPP, MCPP/2, 4-D, 2, 4-D, 4 Lb. Amine, Betasan 4EC and Betasan 12.5%; fungicides—Fore, Thiram-PMA, Liquid Cadmium, Mercurial Turf Fungicide (granular), Mercurial Turf Fungicide (wettable powder), Thiram W.P. 75 and PMA 10 %; insecticides—Chlordane 8.0 E.C. (liquid), Chlordane 25% (granular) and Malathion 5 E.C.

In addition, there is the Vertagreen Rotary Spreader, made of a rust-proof stainless steel control wire, which is said to spread evenly without having to follow wheel marks or other guides.

Velsicol Chemical Corp. introduces two products—Banvel 4S for killing deep-rooted weeds and Banvel + 2, 4-D, which is said to control broadleaf weeds in turf with one application. Fungicides made by Velsicol include 2-1, Memmi .8EC, Thiram-PMA, Thiram 75 and PMA 10.

#### Verde Lawn, Inc.\*

Vineland Chemical Sales Corp. offers a problem solver chart listing the type of turf problem and the turf product to use in order to solve the problem. Selected products include Dal-E-Rad, Super Dal-E-Rad selective dallis grass destroyers, Vi-Par herbicide for control of broadleaf weeds in turf fairways and lawns, Thiuram-M, a broad spectrum fungicide, and Vichem Green, which colors lawns a rich natural green.

**Warren's Turf Nursery** offers A-20 bluegrass. This stiff bluegrass is resistant to rust and striped smut and can be used for tees, greens and fairways. Available in sod or plugs.

#### ACCESSORIES

Container Development Corp.'s Lewis Line offers a wide selection of tee and green equipment. For ball cleaning, there are four models: the GF-68 Water Boy; the GF-52 deluxe washer with 36 square inches of nylon brushes; the compact GF-5 and GF-6 or GF-7, the Old Stanby. Lewis also makes brightly colored flags for every purpose; fluorescent poles, which can help the golfer spot the cup from 150 years out; cup cutters, the Chamfered Pole and cup, which can be used in heavy winds; practice tee and green markers in four colors; lightweight rakes; the Bulldog cleat cleaner; and the fiberglass Tee Marx.

Foley Mfg. Company offers the Rotary Mower Blade Grinder (model 398) featuring a blade balancer. It is designed to provide hollow ground cutting edges on all rotary mower blades. Equipped with an electric motor, it has sealed ball-bearing, produces onethird hp and operates at 3450rpm. Price: \$105, with motor. The Lawn Mower Grinder (model 388) performs all grinding operations necessary for reel mower maintenance without dismantling mowers. Price: \$498.50, with motor. The Modern Lapping Ma-

\*Information was not available at press time

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INSTITUTIONAL MOWING EQUIPMENT CATALOG AND SPECIFICATIONS

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This is Toro, the leading producer of quality institutional and residential lawn care equipment for more than half a century. It's a position we've maintained because our every manufacturing and marketing effort is geared to meet your needs.

In Toro's research laboratories, skilled scientists and engineers continually strive to improve the quality and design of Toro products.

Their innovations are produced by talented craftsmen who care, in the tradition of Toro, about the quality of the product you will receive.

This means that when your Toro is delivered, whether it's " a mower or irrigation system, whether it cuts a swath 21 inches or 21 feet, you'll know your needs have been fulfilled.

Toro offers you the widest available range of institutional products. And it backs them up with over 75 exclusive distributors and the finest authorized dealer service organization in the country.

Toro's manufacturing facilities are located in Minneapolis and Windom, Minn., Springfield, Ohio and Riverside, Cal. General offices and parts depot are at 8111 Lyndale Ave. S., Minneapolis, Minn. 55420 Greater mowing capacity, better mowing efficiency, more versatility and mobility – these are the demands of today's buyer of institutional mowing equipment. Toro meets these needs with the most rugged, dependable, high quality reel and rotary mowers made. Golf courses, schools, parks, cemeteries and other institutions throughout the world depend on Toro to check maintenance costs and improve efficiency through greater mowing capacity, maneuverability and reliability.









Here's a tough, eight hour a day rotary that's ideal for trimming those hard to reach, smaller areas. Wind-Tunnel<sup>®</sup> housing blasts the grass aside, no clogging. Four cycle engine has 5 hp., oil pump and oil bath air cleaner. Whether hand or self propelled, the **Whirl**wind 21" will conquer your toughest cutting jobs.