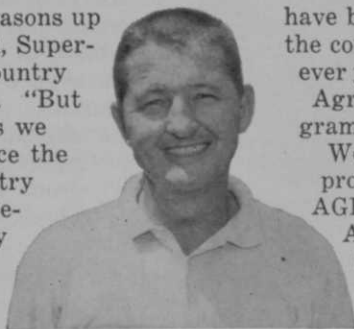




For steady growth on greens— North Oaks chooses Agrico Fertilizers

"We have hot, dry, short seasons up here," says Richard Toupal, Superintendent, North Oaks Country Club, Minneapolis, Minn. "But Agrico gives us the results we want. Many fertilizers force the grass too fast. Agrico Country Club Fertilizers provide adequate and steady growth by releasing nitrogen more uniformly throughout the season. Our members



have been very complimentary about the conditions of our greens." Whatever your local conditions are, try a

Agrico Country Club Feeding Program and see the results you'll get.

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The Nation's Leading Fertilizer

Drainage Renovation Stressed

Two young architects, heavily engaged in course reclamation work for the last two years, cite need of better systems for drawing off excess water


By JOE DOAN

• *Courses that are poorly drained, over-watered or hard hit by rain provide the healthiest kind of incubating "soup" for pythium (a water mold). It becomes even healthier if high humidity (consistently about 70 per cent) is prevalent. — Golfdom, Sept., 1964, page 28.* •

It was just a year ago that an emergency meeting of supts., green chairmen, club officials and agronomists was called by the Chicago District GA in an effort to find out if some remedy couldn't be found to counteract a pythium plague that struck Northern courses in late July and continued to cause distress until the weather turned cool in mid-August.

No definite solutions came out of the Chicago meeting, although it was agreed that the blight probably could be headed off if clubs were willing to spend extraordinary amounts of money on a manganese-zinc fungicide program, to be started early in the season. Most supts. expressed doubt that their clubs would be willing to undertake the costly treatments, even if these guaranteed disease-free turf.

The alternative was to improve drainage. After the pythium blight, which hadn't struck with damaging intensity in the previous nine years, had subsided, many supts came to the conclusion that the disease would never gain a foothold if better drainage systems were to be installed at their courses. Actually, the plague had caused much more damage to their combination bent and poa annua



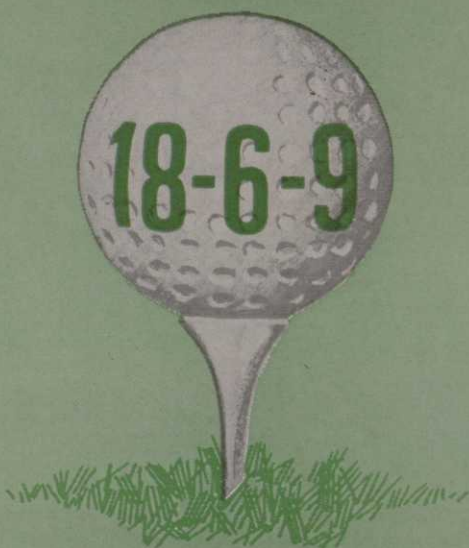
All emphasis is being put on drainage of greensites that are being rebuilt through the Midwest. Here is the tile layout on No. 14 at Lake Shore in Glencoe, Ill.



Reconstruction of the sixth green is part of the rebuilding program at Lake Shore. Several older clubs are revising their courses on a five-year plan, with three or four holes being rebuilt each year.



A poor drainage system not only causes trouble on the course but spills over into the parking area, as it did last year at Glencoe (Ill.) CC. This has been corrected.



Tee up for better turf with NEW ARMOUR VERTAGREEN LIGHTWEIGHT with *magnex**

(The New Turf Fertilizer)

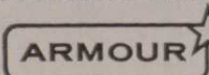
Check that analysis: 18-6-9 . . . it's the higher potash content in a balanced analysis in new Vertagreen Lightweight 18-6-9 that pays off in sturdier, stiffer, stand-up-to-duffers turf. Greener turf, too, thanks to the addition of *Magnex**—Armour's new green-up element: a combination of magnesium to help grass build up chlorophyll, that all important plant pigment which is the key to healthier, greener growth—and complexed iron, a form which makes this vital element readily available to growing plants. Botanists tell us that chlorophyll is

always present during photosynthesis, and that it is only formed in the presence of light and when iron is available to the living cell. So it's easy to see why *Magnex** is called the new green-up element from Armour.

Non-burning, easy spreading, less load to handle—new Vertagreen Lightweight with *Magnex** combines convenience with results.

See your Armour representative now for new Vertagreen Lightweight, Armour Armorganic Plant Food and pesticides for complete course development.

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ARMOUR AGRICULTURAL CHEMICAL COMPANY

Atlanta  Georgia



Every member of the Southern California GCSA must be a horseplayer because there was 100 per cent attendance at the June meeting when Pacific Toro treated the greenmasters to a day among the bookies. Host for the day was Horace Pratt. Lovely young hostess is Donna Hartssock of Inglewood.

fairways than it had to greens. The supts. reasoned that the greens had escaped because drainage of those built in the last 20 years or so had been carefully planned when they were constructed. But this wasn't true of the fairways. Pythium struck hardest where fairways were poorly graded and low spots abounded.

Five-Year Improvement Programs

In the last two or three years, several older courses in the Midwest have embarked on five-year course improvement programs. Two, three and four holes are being rebuilt each season, partly because it is easier to finance a program of this kind, but mainly because it isn't necessary to take a course out of play when reconstruction is going on. In the Chicago area, the architectural and site planning firm of Ken Killian and Dick Nugent, is handling a large share of the course re-vamping that is going on. About 70 per cent of the work undertaken by this team since 1963 has consisted of rebuilding undersize greens — and improving fairway drainage where clubs are willing to go to the expense of having this done. Supts. generally agree that Killian and Nugent, who are proteges of Robert Bruce

Harris, have a god selling point where the fairways are concerned.

Start with Greens

Usually, when Killian and Nugent undertake a reclamation job, the first consideration is the greens. At many of the older clubs the greens that were built 40 to 50 years ago cover an area of less than 5,000 square feet. Traffic on them today is at least twice as great as it was when they were built and compaction, possibly poor contouring and lack of space for interesting pin placements are among the deficiencies associated with small putting areas. In many cases, Killian and Nugent have found the older greens have been devoid of drainage systems, or where they had been installed, were either poorly designed or perhaps almost completely plugged.

K & N has handled remodelling projects at Glencoe CC, Onwentsia Club, Lincolnshire CC and Lake Shore, in the Chicago area, and Lake Ripley, Wis., in the last year or so. Usually, when the greens are enlarged, tees are rebuilt as part of the reconstruction package. At Glencoe CC, a municipal 18, Supt. Tom
(Continued on page 62)

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Dick Betterly, left, superintendent for the prominent irrigation specialists, A. J. Miller, Inc. of Royal Oak, Michigan, and Mark Schurman, right, inspect one of the automatic angle valves in the CRESline system.

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Goldom, Golfing Sold to Publishers of Golf

Goldom and its Christmas pro sales promotion supplement, Christmas Shopping at Your Pro Shop, and Golfing magazine, have been sold to Universal Publishing and Distributing Co., New York, publishers of Golf magazine, Golf Business quarterly, Ski magazine, Ski Business and other magazines and books.

Principals of UPD are the Abramson brothers, Arnie and Bob, who bought the publications from Joe and Herb Graffis. In the new lineup the Graffis brothers will continue active, Joe as associate publisher and Herb as executive editor. Joe Graffis, Jr., continues with the merged organizations as Western advertising manager of Goldom.

Goldom will absorb Golf Business and Golf magazine will absorb Golfing.

Goldom was started in 1927 as "The Business Journal of Golf." Previously the Graffis brothers, with the Chicago Tribune's golf writer, Joseph G. Davis, as editor, published Chicago Golfer, most successful of the numerous district golf publications of the mid-20s.

Before and after World War I service with a pioneer U.S. naval aviation group, Joe Graffis was with Golfer's magazine, then the publication of the Western Golf Association.

Goldom, in becoming a valuable working tool for superintendents, professionals, club managers, course owners and club officials and a vigorous independent supporter of the professionals, superintendents and managers, long carried a heavy load of responsibilities. The necessity of closer tie-up of manufacturers' advertising with pro shop merchandising resulted in the publication of Golfing, beginning in 1933, at the suggestion of leading manufacturers.

Goldom figured in the formation of the National Association of Greenkeepers

and of the Club Managers Association of America. It campaigned for changing the name of the greenkeepers' organization to identify these men in their important capacity as course superintendents and in many other ways has been strongly effective in the economic and status progress of the course managers. Goldom and Golfing have followed a pro-only policy, many times to the extent of getting hurt financially. The Graffis brothers have been long convinced that whatever is good for the good pro is even better for his club.

The National Golf Foundation was an idea the Graffis brothers brought into reality. It was run at their expense of time and money during its formative years, and before its sponsorship by the leading manufacturers of golf playing equipment and its great growth. Joe Graffis was National Golf Foundation president for 26 years.

Joe Graffis says: "Herb and I have been the two luckiest guys in business. We both are in love with golf and discovered you could be in love and make a few dollars, too. Never have any other men in business been as fortunate as we in the friendship and help of wonderful people in every phase of golf. We've been unusually lucky in having the greatest staff of smart and hard workers any business possibly could have. Selling to the Abramson brothers was not altogether a matter of price. We are confident they will do more for golf as a game and business than any other of the good outfits that sought to buy our publications. We thank thousands in golf who have gone out of their way to help us and work with us. And we will keep on working for the good of golf and golfers."

Herb's comment is, "Amen. Now let's play some more golf instead of working so hard at it!"



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BETASAN controls *poa annua* when it starts—when the seeds germinate. And the time to use it is now—from mid-July to mid-September! This stops fall infestations of *poa annua*, and allows the desirable perennial bent, fescue and bluegrass varieties to fill in during their period of most rapid growth—during the cooler weather.

Besides *poa annua*, BETASAN controls many

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Soil infiltration rates are explained to fieldday visitors by Paul Rieke, MSU soil scientist. He poured water into different soil mixes to show the rate of movement through them. This basic experiment is helpful in the selection of soils for putting green mixtures.



James Beard (center), MSU turfgrass researcher, comments on a bentgrass variety and strain evaluation experiments. Beard was in charge of the field day.

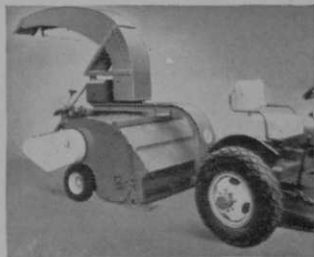
Field Day at Michigan State

More than 400 turfmen take four-acre walk to see demonstrations of new developments in their field at July gathering in East Lansing



MSU Turfgrass field day included 16 stops at various test plots. The three stops shown here cover bentgrass experiments.

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Removes thatch—picks up leaves and turf debris

Now, Jacobsen introduces the fastest, easiest, lowest-cost way to remove leaves, thatch and turf debris... automatic grooming with the new Jacobsen Turf Groomer!

Depending upon turf conditions, speeds up to 8 mph can be obtained. The Turf Groomer scarifies, sweeps up and removes all types of leaves and debris in one easy operation. For quick disposal, its 5-foot auger-blower system with guided, swivel discharge chute forward-loads a towing vehicle, loads trucks running along at either side, or back-loads trucks or the dump, Turf Trailer accessory shown above.

The Turf Groomer removes thatch more easily and economically, too. It employs a series of free-swinging,

flail knives that slice through roots, runners and dead grass, and aerate the turf. They are located between its nylon brush vanes which immediately pick up and load the thatch and clippings into any type carrier.

The new 3-in-1 Jacobsen Turf Groomer now makes large area turf maintenance a simple, efficient, remote-control one-man operation for golf courses, parks, cemeteries, sod farms, and the grounds of schools, institutions, plants and military establishments. For full details, phone your Jacobsen Turf Equipment Distributor for a demonstration, or write today. Jacobsen Manufacturing Co., Dept. G-8 Racine, Wisconsin.



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