Pont turf fungicides greens players rave about

"Our greens were never better"... "They putt truer than ever before"... are some of the many compliments Mr. Homer Looney, Superintendent, Millburn Country Club, Overland, Kansas, receives. Mr. Looney tells how Du Pont Turf Products help him produce these greens.

"We apply 'Uramite' fertilizer compound at the rate of 10 pounds per thousand feet, spring and fall. It saves us time and money. Our greens have better color through the season . . . start off earlier and stay playable longer. The texture is marvelous, with greater density and improved resilience the surface springs back when walked on. All this results from uniform nitrogen feeding provided by 'Uramite'.

"For disease control, we spray 'Tersan' 75 combined with 'Semesan' Turf Fungicide once a week through the growing season. When conditions are particularly adverse, we make additional applications. but we have never had to spray more than twice a week. Before we started using 'Semesan' Turf Fungicide, dollar spot was a serious problem, but we are no longer bothered by this disease.

"Last year we tried 'Tersan' OM and found it fully effective. It also saves us time, because weighing is no longer necessary. We plan to expand our use of 'Tersan' OM in the future."

For excellent, long-range results, base your turf management program on Du Pont "Uramite" for uniform feeding of vital nitrogen and Du Pont turf fungicides for top year-round protection against disease. Order a supply from your dealer.

TERSAN 75—gives excellent control of dollar spot, brown patch, snow mold... helps keep greens ready for early-season play.

SEMESAN Turf Fungicide—a specially prepared mercurial composition for hard-to-control turf diseases. For broad spectrum protection, include with "Tersan" 75 in a combination application.

URAMITE — contains 38% nitrogen. Feeds slowly... keeps nitrogen at a proper level. Assures healthy, vigorous growth. Clean and odorless, too.

TERSAN OM—combines the effectiveness of "Tersan" 75 and organic mercury in a single fungicide. Eliminates tank mixing . . . saves time and labor. Comes in ready-to-use 3-lb. packages.

On all chemicals follow labeling instructions and warnings carefully.



rf Fungicide





BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

Grau's Answers to Turf Questions



Supts. May Get Headaches Trying to Avoid Them

"Avoiding Built-In Headaches", handled masterfully at the GCSA conference by L. E. (Red) Lambert, deserves special attention by virtue of the tremendous potential for good of this gigantic project. By accepting responsibility for clarifying the several phases of properly planning and building a golf course, the supts. have drawn wide attention to the contributions that they can make to better courses. In their effort to help architects and builders avoid built-in headaches, the supts. are assuming their own monumental headaches.

In this business of golf, each one of us is working for the golfer — the man who pays the bill. His pleasure and satisfaction is or should be our only aim. He is not pleased when his new course, which he has played for one or two years and for which he has paid a large sum, must be taken out of play and rebuilt at heavy additional cost, simply because it was designed and built in such a way that maintenance was practically impossible. It is not our place to elaborate on this theme It is our hope that a good beginning will receive the whole-hearted support of each responsible person who can contribute to providing the kind of a course that can be maintained easily to provide the very best playing conditions for the players.

Support from PGA

In talking with Lou Strong, the new PGA pres., the impression was gained that strong support for the expressed construction principles may be expected from members of his organization. It is hardly necessary to point out that a happy golfer in the pro shop is a better business risk than one whose round has been marred by r e b u i l d i n g, ground-under-repair and "Course Closed."

It is not yet wholly clear as to who is going to bring desired coordination of effort among those who plan, design, build and maintain new courses. The new committee of the new course first must be made aware that mistakes can be avoided by adhering to certain well-established principles. Everyone might agree on procedure but, if funds should run low during construction, the temptation is strong to say, "Let's skip the drain tile. We can save some money here by using native soil, etc. etc." Ways must be found to follow the agreed-on specs without deviation so that the finished course will play and canbe maintained as designed, granting that it was properly designed to begin with.

It is not enough to have a capable supt. on the site during planning and design. He must be given authority to issue a 'stop order' when construction violates a principle. Supts. have told many sad stories of their experiences with new courses. For example, one told of trees that were bull-dozed for fill into a ravine which was the site of a green. Knowing that the logs would rot and settle and make the green completely unplayable, he reported to the committee and requested a stop order. Only, the committee approved the operation and reprimanded the supt. for interfering with the architect and builder. Two years later it cost the club over \$10,-000 to rebuild the green.

Through the combined and coordinated efforts of the GCSA, the PGA and the USCA Green Section, there should emerge a statement of principles which could become the authority by which an architect can confidently prepare specifications for a new course. This would give assurance that built-in easy maintenance would produce a layout that would be a model of excellence.

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Not Just Topdressing

Q: What should I use for topdressing my greens? I am new at this club and the greens are composed mostly of sand. The mixture was at least 5 buckets of sand, I bucket of sandy loam, I bale of peat moss. When I change the cup position there is no trace of loam or peat moss. The grass really grows but requires much watering and fertilization. Even now, when it should be a little dormant, I get plenty of grass clippings, almost the same as in the spring. When I topdress in the fall I would like to use more loam to form more of a base. What do you suggest? Our greens are seaside bent average size 5000 square feet. (Conn.)

A: It sounds as though you have achieved very nearly an ideal situation for growing bent. If you are able to obtain uniform growth of clippings throughout the season, I would not try to bring more loam into the soil. Rather, I would use somewhat less of the quickly available nitrogen fertilizer and gradually work into a program of using the insoluble, longer-lasting types of organic nitrogen. With such a program you will be able to reduce your watering somewhat and you will lose much less fertilizer through leaching.

It would help if you could submit a cup cutter core for examination. I would hesitate to suggest any change until I could see a sample of the soil in your greens. Such a sample should be sent directly to me at P. O. Box 8, College Park, Md. This will save re-shipping from GOLF-DOM.

P. S. The soil core from your No. 9 green shows that your conclusions are sound. The soil is so very sandy that the cup-cutter core falls apart. You would do well to incorporate (not just topdress) additional peat and loam soil. The mixture may be 50-50, carefully worked into holes or slice marks made by an aerator or thatching machine.

By reducing the frequency of feeding a soluble fertilizer you can slow the growth to a more comfortable level. The grass in the plug which you sent seemed very healthy and there was a good penetration of roots. It would seem that the greens would hold a shot in almost any kind of weather.

Care of Penncross

Q: We have five new greens of Penncross grass and would like to have a few answers on the care of them. They were seeded last fall and were mowed several times before winter. How should they be taken care of from now on? How close cut this spring and also what fertilizer program would you advise? The lime is neutral. Should they be verticut regularly for mat? We have to use dry method of fungicide. Please recommend what to use. We have been using and but on our old greens it doesn't control dollarspot too well. Will Chlordane control worms better than arsenate of lead? Could the old greens be reseeded with new Penncross over a period of a few years without digging them up? They are now mostly Colonial. Do the companies that make seed have any information on care of their products?



Trademark of Fred Grau (center), who underwent several operations last year to correct a spinal condition, is combination of putter and cane. It's checked for notches at GCSA convention by James E. Thomas (I), the turfmen's outgoing pres., and Lou Strong, the new PGA pres.

Are there any books available that give a complete how-to-do on greens?

A: Your Penncross greens should give you excellent performance under this program.

Mow daily at 3/16 ins.; never higher than $\frac{1}{4}$ in. Fertilize in early spring with 19 lbs. of solid ureaform to 1,000 sq. ft. Repeat in early fall. Apply just after aerating. During summer use 25-0-25 soluble fertilizer or similar at $2\frac{1}{4}$ to 3 lbs. to 1,000 sq. ft. whenever the grass appears to be hungry and in need of nitrogen.

Verticutting or aerothatching will be necessary occasionally to reduce mat and thatch. Do this only in cool weather. Topdress with a coarse sandy mix after each aerating or aerothatching.

Your dry fungicides will be much more effective with the suggested fertilizer program. Continue with those you have been using. The old greens are probably so badly thatched that the fungicides cannot get to the disease. Try to get them aerothatched this spring before fertilizing.

Stick to arsenate of lead for pest control. Not only does it control worms but Poa and chickweed as well. Keep phosphorus low.

Many old greens are being converted to Penncross by reseeding. This will be successful only if the thatch is removed, preferably by a machine which cultivates, aerates, and removes thatch all in one operation while leaving the green perfectly puttable. Seed Penncross at ½ lb. per 1,000 sq. ft., no heavier! Topdress lightly after seeding. The ureaform fertilizer can be used as a "mixer" for the one-half pound of seed to make it easier to spread uniformly.

The book, "Turf Management" by Musser, is a good one to have on your shelf. A new revision is in the making. I do not know of any management guides put out by seed companies.

You will do well to have soil tests made once a year so the levels of nutrients are balanced.

Keep Penncross turf on the dry side - soak well when water is needed but let surface dry as much as possible until golfers complain.



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BONER-BILT

Course Employee Is Subject of **USGA** Discussion

By HERB GRAFFIS

The USGA green section education program on Jan. 27, at the Biltmore hotel, New York, brought 100 supts., chmn. and green section agronomists together to discuss training and direction of the course worker. Wm. C. Chapin, Oak Hill CC, Rochester, N. Y., section chmn., presided over the morning and afternoon meetings at which the practical phases of golf course labor management were presented by supts.

Edwin Hoyt and Marvin F. McCarthy, green section committeemen conducted the sessions.

David Lilly, Toro Co. executive, green chmn., Somerset CC and member of the green section committee led off by outlining the principles of management as they apply to course maintenance as well as to any other business. Lilly stressed a practical balance between paper work and its application. When the controlling facts are on the records, then the supt. has to put them to work and use the facts instead of hunches in directing the jobs.

Work too Hard Wm. H. Bengyfield, Western dir. of the green section, emphasized the importance of getting the right man fitted into the right job and teaching him how to do it correctly with the least waste of energy and of time. Bengyfield indicated that the reason some supts. have to work so hard is because they can't teach anybody else to do the job and leave the supt. free for important planning, direction and supervision.

Gene Nutter, GCSA executive dir., in speaking of the supt's. training of workers, said that there are only about 50 college graduates in turfgrass work each year and not all of them go into course work. The graduates probably are much better educated in the management of grass than in the management of men which is something that generally has to be learned on the job.

Changing conditions of maintenance due to increased women's play, the opera-



Patty Berg holds the latest addition to the USGA's "Golf House", a bronzed golf shoe that she wore in her first Women's Amateur championship in 1925. Only 17 at the time, Patty went to the final, losing to Mrs. Edwin H. Vare, Jr., 3 and 2. The tournament was played at Interlachen.

tion of the 43,000 golf cars in use today, and the extensive reconstruction and renovation that must be carried on along with regular maintenance work were matters discussed in the morning Q and A period.

Stumped by Labor Costs

Marvin H. Ferguson, green section national research coordinator, told of the difficulties a supt. is up against in trying to keep accurate records, particularly those of each job's labor costs. He thinks that standard printed forms might be devised that wouldn't be too hard to keep. Ferguson said that green section men, or anybody else who has been around the golf course business for a while, can look at cost sheets and see the weak or strong points of an operation.

He suggested that in many cases costs could be wisely and usefully compared on a basis of man hour costs per 1000 sq. ft. unit. He cited three city courses in which there was a difference of \$2700 in tee maintenance between the highest and lowest figures, and told of another course in which \$5 was noted as the cost of ball washer maintenance and towels for a year. **Classic Treatise**

Robert M. Williams, supt., Bob O'Link GC, Highland Park, Ill., illustrated his talk on efficient use of men and equipment



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with charts and slides. Williams' paper was conceded by the audience to be a classic treatise on this subject and a practical guide for determining efficiency in course labor and machine management. It will be printed in a later issue of Golfdom as will be another highly commended paper, "Planning for Safety in Golf Course Work", by Andrew A. Bertoni, supt. Meadowbrook CC, Northville, Mich.

Placing Men and Machines

A. M. Radko, Green Section Eastern dir., discussed problems of routing workers so they won't interfere with players or vice versa — and remarked that the problem of placing men and machines was getting tougher and more important with so many more women golfers now playing.

Adm. John S. Phillips, green section member from Ft. Lauderdale, Fla., and a veteran chmn., referred to parallels between navy training of enlisted men and training of course workers. He said it is hard for a supt. to train his staff unless he has the respect and cooperation of the chmn. The competition other employers offer for course workers in wages and steady employment, the insurance, vacation and pension plans that are available in other jobs but not generally in golf, give the supt. headaches in getting, training and keeping good men, Phillips remarked. He added that chmn. often don't realize the handicaps under which the superintendent works.

Announce Program for NY PGA School, April 13-14

More than 80 professionals and assistants will gather at Hotel Syracuse, Syracuse, N. Y., Apr. 13-14, for the New York State PGA business school. This project is a joint effort of three upstate PGA sections: the Central, Northeastern and Western. Enrollment will be restricted to PGA pros and assistants and a selected few others who are to be screened by the enrollment committee.

The subjects at this school will closely follow the curriculum of the national business school at Clearwater. John Budd of Syracuse will be dir. of the school. For the past two years Budd has lectured at the national school on bookkeeping, taxes, finance, reports, insurance, public relations, communications, news writing and public speaking.