



Carl K. Smith

Drainage was urgently needed

Smith Subdues Mountain of Woe at Lakeview Club

Getting Morgantown course to breathe again called for opening up the pores on, below and above the surface

When Carl K. Smith came to Lakeview CC in Morgantown, W. Va. as supt. in 1957 he had several elements, none of them exactly promising, with which to contend. For one thing, the course, located on a mountainside, amounts to a bi-level exercise in turf maintenance since the lowland holes are at an elevation of about 900 feet and those on the upper deck extend as high as 1400 feet. This, in itself, probably calls for a man of two faces. There are three distinct types of soil covering the Lakeview landscape and underlying it all and, in a few cases not too far down, is solid West Virginia rock. The fourth green at the Morgantown layout, for instance, is cushioned on a mixture of clay, sand and humus that is only about four feet above the rock pile.

A competent supt. can, of course, live with these things. That is especially true if, as in the case of Carl Smith, he had been working with similar soil and turf only about 80 or 90 miles away in his native Pennsylvania for about 20 or 25 years. But throw in acre after acre of crabgrass that confronted Smith when he came to Lakeview, almost as much poa annua, and both air and ground drainage systems (or more properly, lack of them) that were almost completely congested, and you can see where a fellow might become discouraged.

Hired in A Hurry

Smith had worked for more than 20 years for the Mellon Enterprises, near Pittsburgh, the last six of them in the horticulture department, when he took the Lakeview job. His impression when he was being interviewed was that the course offered more than just an ordinary challenge, if you don't mind that over-worked word. His enthusiasm for attack-



Smith-made lake at Lakeview is located in center of course. It has one million gallon capacity, is used for ice skating in the wintertime.



Comfortable, 40-unit lodge at Morgantown golf and resort location is open all year. Skiing is popular during the cold months. Below is approach to the clubhouse.



ing it without any further delay apparently was so contagious that the late Ward Christopher, owner of the Morgantown club, hired him on the spot.

"Six months later, Carl recalls with a smile, "I wished Mr. Christopher hadn't been quite so hasty. The longer I was around Lakeview, the more headaches I discovered."

The high level portion of the course was in comparatively good shape, but the lower nine, literally strangled by solid rings of trees, presented many acres of threadbare fairways and greens that had a habit of turning temperamental and bowing out in the July and August heat.

Starts to Pickup

In the late winter of 1957, Smith put his 10-man maintenance crew on a crash program knocking down timber. To give you an idea of how densely packed the trees were, the Lakeview lumberjacks concentrated on channels about 200-feet wide and approximately that deep and in many instances felled as many as 50 trees in a single channel. By the first of June they had chopped down and hauled away several thousand trees, most of them oaks.

When air started to filter in from Cheat Lake on the west, and from the

other quadrants, there was a quite noticeable pickup in the condition of the Lakeview course. However, the club was enjoined from cutting timber on property adjoining its 14th green and to this day a 24-inch fan, mounted on a 20-foot post, has to be used to induce airflow. The turf on No. 14 was replaced in 1958 with a mixture of Pennecross, C-7 and Nimisilla which finally started to come into its own just last summer.

"No. 14," says the Morgantown green-master, "always has been our problem child. The fan has helped, of course, but this green certainly points up the fact that you can't grow good turf without proper air drainage." Greens on the high level part of the Lakeview course always have held up better than those in the valley because of the circulation factor.

Opening the air channels was the first stage of the rehabilitation program at Lakeview. Leaves had never been cleaned up in the fall before 1958 with the result that a heavy and highly acid organic layer overlaid the soil. This slowed down the reaction of fertilizers that were applied and gave rise to a serious insect and fungicide situation. Crabgrass and poa annua thrived. To counteract these effects, Smith had the lower course aerified eight times in the first two years he was at the club. Today, the leaves are collected and composted with a mixture of sand, lime and nitrogen and used as topdressing after being cured for three years.

Works on Drainage Systems

With the air circulation improved and steps taken to neutralize Lakeview's soil, Smith next turned to correcting the course's ground drainage system. At a club where the gradient between the high and low holes is extremely steep, numerous washouts occur if measures aren't taken to properly channel the flow of water from the high elevations to the lower levels. When the course was constructed in 1954, several ditches two feet deep and about that wide were dug to handle the overflow from the high side, but these proved to be impractical because too often they became clogged. In the spring, fairways usually became oversaturated when water spread beyond the channels, with the result that play was somewhat curtailed in April and May.

The Morgantown supt. corrected this by the simple process of filling in most of the ditches and substituting 15 diversionary channels with very flat beds. He reasoned that even if leaves and other



Beam ceilings, beautifully furnished lounges, excellent food make Lakeview clubhouse the coziest kind of a retreat.

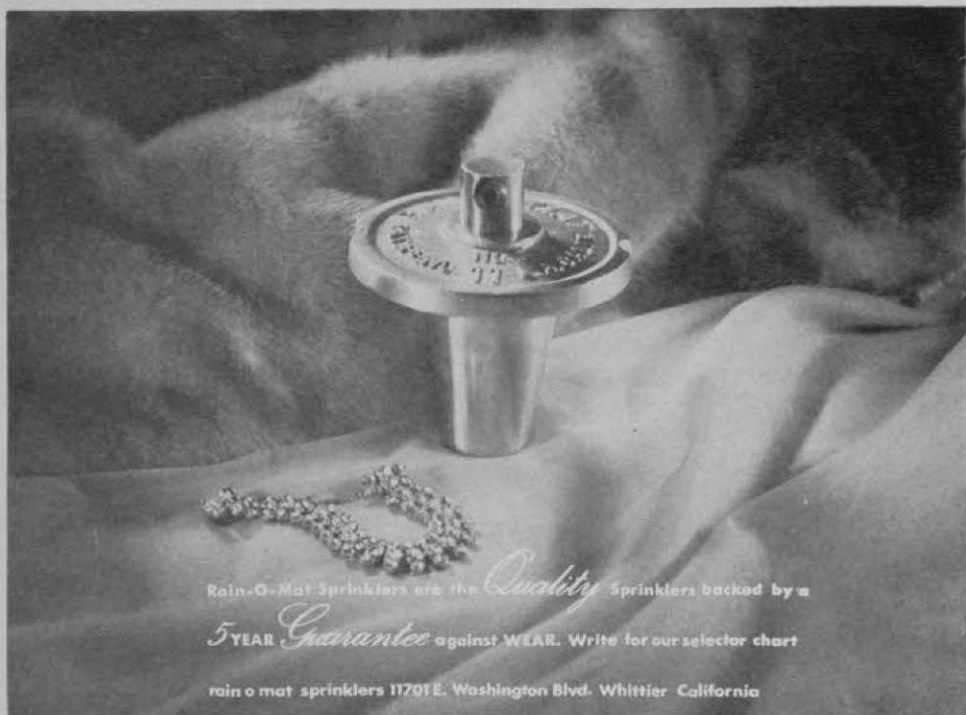
debris collect in the beds they won't impede the flow of water. The water that comes down from the hillsides is impounded in a lake that is located in the center of the Lakeview estate. To build it, Smith's crew had to remove a grove of trees that produced about 3,000 board feet of lumber. The lake is 16 feet deep, covers an acre of ground and holds about 1,000,000 gallons of water. The cost of building it amounted to about \$2,800.

Keeps Seepage Rate Down

Soil tests taken before the lake was located indicated that the site bed contains about 70 per cent sand and 30 per cent clay, ideal for water storage. In building the breastwork, Smith was careful to keep roots, large stones and other debris out of the mixture that went into it, and his workmen took great pains to compact the dirt walls in shallow layers to cut down on erosion and seepage. The reasoning here was very sound. As far as can be determined, the seepage rate is actually less than the evaporation rate.

Water from the lake is fed into Lakeview's irrigation system that covers the course. Four turbine centrifuge pumps, two of 15 hp and two of 25 hp, circulate the water through the sprinkler complex which has more than 250 snap valves. Smith shoots for the equivalent of one inch of rain throughout the playing season. When the course's water supply source runs low, it is supplemented by nearby Cheat Lake, a large, artificial body of water built by the West Virginia Power Co. in 1926.

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capacity to the board of directors or owners, and periodically audit the policies and operation until both the club and we are satisfied it is firmly established.

Flexibility Emphasized

Because no two club projects are exactly alike we must be flexible in meeting the demands of any situation. Recently, we've greatly expanded this flexibility to include service to the type of club described above — the older club facing reorganization, reconstruction or expansion to meet the requirements of changing times and memberships. In some cases we've been forced to furnish managers for the operation under our direct supervision.

Competent professional help in every phase of club development is available to any club — new or old — that wants it, but it should be called in before the club makes any commitments in order to achieve the best results possible at the most reasonable cost to the club.

Applies to Tax Lockers

According to the Chicago Dist. GA, any charge by a club to its members for use of a locker for more than six days comes within the meaning of dues and is subject to the 20 per cent excise tax.

Smith's Mountain at Lakeview

(Continued from page 36)

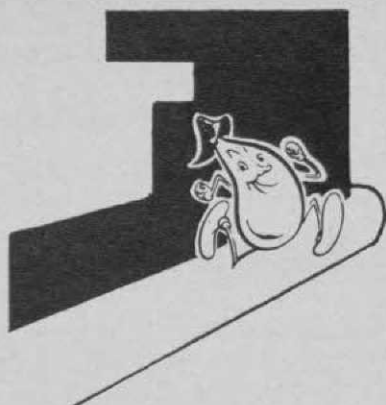
You would think that in the first two or three years Carl Smith was at Lakeview, he had torn up and retooled, or built from scratch, enough things to last a lifetime. But he wasn't through yet. Next came the greens! From 1958 through 1960 he rebuilt, resodded or switched sod on every green on the course. Those on the lower level had been weakened by the recurrence of wilt in addition to insect and disease attacks. The high side greens generally had held up quite well, although desiccation had taken its toll. Besides this, Smith wasn't satisfied with the surface drainage on most of them. The upshot is that there was a complete shake-up in the Lakeview putting surfaces in those two years.

Rehabilitation Needed

So that you don't get the impression that the Morgantown greenmaster scorns the other fellow's handiwork and takes a kind of fiendish delight in tearing it up and re-casting it, the following things should be kept in mind. There isn't much doubt that the new Lakeview course, with its deficiencies in the valley as well as on the hillsides when Smith took over

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five years ago, was in poor shape. It needed rehabilitation in the worst way. Carl is a thoughtful fellow who doesn't act impetuously. His more than 20 years as a turf specialist with Mellon Enterprises taught him a few tricks that perhaps many supts. aren't familiar with. He's not above calling in an agronomist as a consultant when he's perplexed, and he didn't start disturbing the greens and fairways at Lakeview until he thoroughly talked over the whole situation with specialists at Penn State's experimental station.

In short, when Carl moves you can bet it's going to be in the right direction.

Some Maintenance Ideas

As for his day to day manipulations, here are some of the things he keeps in mind in carrying out his maintenance program:

Fairways in the valley of a mountain-side course shouldn't be cut below $\frac{3}{4}$ inches, and too many liberties shouldn't be taken with the cutting height on the higher levels;

You can study many formulas and programs in determining fertilization needs for a new course but you aren't going to

discover the one that satisfies you in much less than five years. That's why you have to keep accurate and detailed records of all applications and treatments;

May Be Overfeeding

If you're plagued by wilt from year to year, probably you are overfeeding;

You can study clippings without putting them to any kind of a scientific test to tell how your turf is doing. Sight and odor tell you a good deal about clippings after you have learned the knack of interpreting what they say;

Never test any new material anywhere except in the nursery;

Keep the drainage sources open—below the ground, at the surface and in the air;

Tie in recorded weather observations with records of applications and treatments and notes on condition of the course. In three years or so you will have enough information collected to give you pretty near a lifelong maintenance schedule;

Don't Forget the Books

To keep the front office happy and make things as easy for the club accountant as you would like to have them, don't ease up on the accounting phase of your



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job. Break down departmental costs so that they can be intelligently charged off. At Lakeview, ground department expenses come under these general classifications: 1. Maintenance. 2. Clubhouse and grounds. 3. Construction and Improvements. 4. Tournaments.

With the improvements, alterations, painstaking care and, of course, money, that has been put into the excitingly scenic Lakeview layout in the last five years or so, it doesn't take second ranking to any golfscape within a hundred miles or more of the West Virginia panhandle. Its expertly designed 6625 yards offer a good deal more than just post card beauty, by the way. More than half of Lakeview's pars, which add up to a final 71, are said not to come easy since the golfer so often is called upon to test his shotmaking from an uphill or downhill stance.

Open Year Around

The clubhouse, 40-unit guesthouse and five chalets at this \$1½ million club represent a comfortable adventure not only in golf but resort type relaxation since part of Lakeview's income comes from visitors. Of the regular membership, about 40 per cent of it is made up of residents

of Morgantown while the remainder is composed of persons who live in Pittsburgh, Cleveland and Charleston, W. Va. It is possible to play golf in Morgantown, now a glassmaking center where once it was a coal mining stronghold, from early March until December. When the flagsticks at Lakeview are taken in for the year, the golfers give way to skiers, making it necessary to keep both the clubhouse and guesthouse open year around.

Lakeview was built in 1954 by H. Ward Christopher, a onetime coal mine owner and operator, who died as the result of an automobile accident last summer. The club is now operated by Mrs. Christopher.

Gain in Entry Lists

Five of the nine tournaments sponsored by the USGA in 1962 attracted record entries. A total of 9,788 golfers entered the nine USGA tourneys, an increase of about three per cent over 1961, the previous record year. Biggest gainer in 1962 was the Junior Amateur. It had an entry list of 2,090 as compared to 1,885 in 1961. The Open enrollment was 2,475, up 26 from the previous year.