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Based on actual operating costs, stepping up from hand sprinkling to an automatic Toro underground sprinkler system can:

... save up to \$20,000 on labor costs over 10 years if you sprinkle just three months a year;

... save up to \$120,000 on labor costs over 10 years if you sprinkle nine months a year.

And if you now have an underground system with quick couplers and impact sprinklers, you can convert to Toro's automatic system and recover your investment in as little as five years.

Efficient automatic operation is only one of the reasons for a fast payoff with Toro.

**Exclusive valve-in-head sprinklers cost less to install and maintain.** (See illustration above.) Save up to 40% per head, initially. Cost less to maintain because both valve and head are easily reached for quick service.



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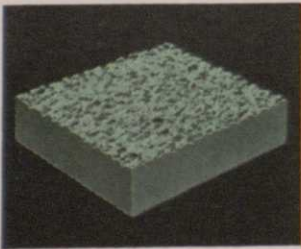
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THE BEST  
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## Selling club to members

*In 1927, like today, a  
successful manager had to  
be an energetic promoter.*

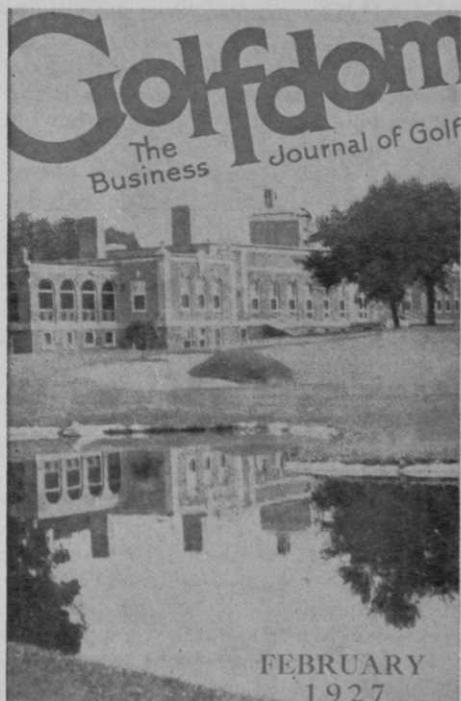
By HARRY O'HAGAN

Manager, Sunset Ridge Country Club

Salesmanship, as one of the manager's duties, may be relegated to a dangerously minor detail due to the press of other important and urgent duties, but it is one of the important parts of his job.

The successful manager sells his club to its members and keeps it sold. The foundation of every selling campaign is the product and here is where the manager figures as a manufacturer as well as the sales manager. Primarily he must make his service better than the other fellow's. Then he has the basis for a continuous and energetic solicitation of patronage on the right platform, better value for the money. There is a common tendency to think of the manager's province as restricted to the departments that the average club member thinks of as merely a vest pocket edition of a hotel and restaurant business, operated solely for the convenience of the members and guests, with the commercial side of the picture out of sight until the board sessions come at the end of the year.

Several factors are serving to correct this condition. Development of the golf club managerial ability has been hastened by competent men who have been working in the golf club field. One of the first signs of recognition of the calibre of men



Reprinted from GOLFDOM's first issue (above).

now at the top of the golf club management profession has been the appointment of these men as general managers of their clubs, with duties and responsibilities in keeping with their titles. This involves, in some cases, general supervision over the entire grounds, as well as over the operating details of the clubhouse. Under this arrangement the general manager serves not only as an executive but as a liaison officer between the committees and the major employees. The outcome is a co-ordination of each phase of the club's work so its selling proposition is made better and the club benefits from its increased and satisfied use by its members.

The club official will realize what the manager is up against in preparing a good selling proposition when he will think of the club as a business like the official's own. What would happen to the sales curve if the owner's manufacturing, purchasing, accounting, shipping and sales departments were tangled up all the time? There has to be a practical operating head with authority if the enterprise

Continued on next page

is to proceed steadily and profitably. This idea of general management as the foundation of a successful campaign for selling the club to its members is available in a practical way. There are plenty of managers who will make it go with the co-operation of the club officials.

**Campaigning for trade**—Energetic selling of a club to its members can be quickly put over in a club that is favored with alert elective officials. I had one case in the East where my club's dining room business had run down so it was being operated at a decided loss. The clubhouse was ideally situated; a short drive from the center of an active manufacturing town. Members of our club were active in other clubs around the city, Rotary, Kiwanis, and other business and luncheon clubs. I sold them on the idea of having their luncheons out at their own club, where they'd get as good a luncheon as money could buy and a change of scenery and escape from distraction that would add pleasure and business value to their meetings. I also played up the comparison of home meal costs and the labor-saving ideas so ably used by the washing machine and other household device manufacturers, so we built up the evening meal business. This was done by a few words here and there among the members. Naturally the wives were for the idea and with their O. K. the house accounts for meals could increase without the criticism that might come from the actual head of the household when the nominal head is thought to be spending too much at the club.

Following this line, the first year I was with the club I doubled the business, and during one month (May) made the club a profit of \$1200 out of its dining room. I made a specialty of bridge luncheons and special parties. By picking out the most active hostesses in the city at the start I was able to get this detail over quickly, for it soon became the proper thing to hold the really nice parties at the club.

At Sunset Ridge since we opened, three years ago, we never have lost in any department and have showed a fair profit, which is almost a record for a new

club. The club probably has the youngest average membership in any club in the Chicago District. The members are lively, but discriminating spenders, and the way that we have kept their entertainment money coming to the club in a volume is by food and service that we confidently rate as the best one will get in the entire Chicago District. By establishing and maintaining a character of cuisine and service that has won a reputation we have been able not only to sell Sunset Ridge to its members for extensive use, but each of the members is a salesman for the club. The members boast about the meals and the service at their club and the force never throws them down. We always have big attendance at the Saturday dinners and dances during the season, no matter what the weather may be, and our business on Thursdays and Sundays when the domestic help at the homes of the members are taking their half-holidays is large throughout our operating season. We do a big bridge luncheon business and I have found that close co-operation with the women who are giving these affairs, although full of exacting details, always pays the club and builds our business. I see to it that the tables are decorated in good taste with flowers from our own grounds, and have the force trained so the efforts of the hostess are minimized.

**Remember the children**—In your selling campaign, don't forget the children. We always have some party favors in stock and I make it a point to give the youngsters of the members some little thing to carry away with them. This is one of the easiest and surest ways to sell a club as a popular family eating place, and about all it costs is a little thought and cheerfulness on the part of the manager. He soon will find the youngsters are doing a great job of boosting for the club and for the manager and his force.

With the volume we do, we are careful to see that we are not kidding ourselves on the gross. I not only supervise the buying of all foodstuffs, but have supervision of buying of all supplies used for clubhouse, grounds and greens. We are operating our place, not to make big money, but certainly to run comfortably ahead of our losses. •

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These Tourney clubs are the end result of 3 generations of exacting clubmaking. The only place we sell them is in pro shops like yours. Tourney clubs come in four series: MT, DX, Armour, and for the ladies, Louise Suggs.


**MT** MacGregor's finest, for golfers who want the very best. Persimmon woods have exclusive aluminum alloy insert for extra yardage. Deep-lustre irons have offset hosel for flatter lie and flame ceramic face to contribute right bite and spin for accurate control.

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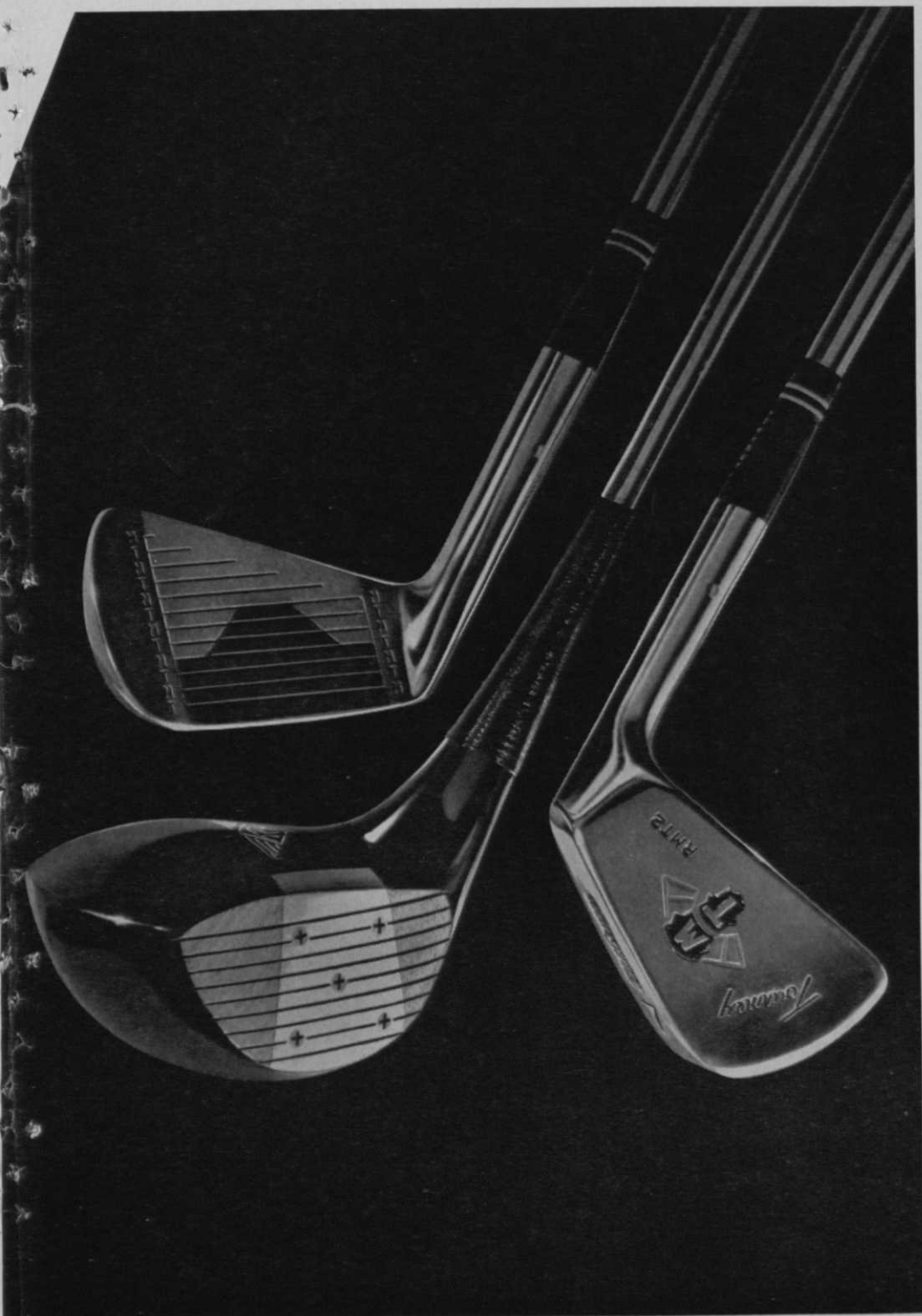
Persimmon woods have heavier sole plates, plus exclusive Keysite insets to help the golfer zero-in the sweet spot. Irons have forward press and sand-blasted lines on face for bite and control, plus golf's largest hitting area.

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# Dollar spot tests yield tips

*Nutrient-turf disease relationships investigated at Iowa State on experimental putting green of Washington bentgrass.*

By ELIOT C. ROBERTS and FLAVE E. MARKLAND

Professor and Research Associate of Agronomy and Horticulture,  
Iowa State University, Ames, Iowa

**B**entgrasses are grown for golf purposes under conditions more severe and restrictive than for grasses grown under natural field conditions. As a result, prevention and control of disease becomes more difficult, particularly on greens.

Bentgrass greens require large applications of nitrogen fertilizer each year. These high levels of nitrogen are needed to maintain the vigor of grass subjected to frequent mowings at heights of one-quarter inch or less. Turf treated with high nitrogen and frequent mowing essentially never matures and remains soft and succulent. These conditions often lead to an increase in disease. However, one common disease of bentgrass greens, dollar spot, caused by the fungus *Sclerotinia homoeocarpa* is known to be worse on underfertilized turf than on well-fed turf.

**Bentgrass Resistance to Dollar Spot**—Dollar spot resistance in bentgrasses may be divided into two categories. The first category may be referred to as genetic resistance. This involves the classification of strains of bentgrasses into groups which demonstrate a natural resistance to the disease. For example, at Ames, Iowa, Penncross bentgrass is less susceptible than Washington bentgrass to dollar spot. Various strains of Washington show differences in degree of susceptibility. The second category may be called managed resistance to dollar spot.

Factors commonly associated with management include fungicide application to remove the disease organism, sanitation which helps prevent the entry of the disease, moisture regulation which may prevent infection, and finally fertilization which helps prevent spread of disease.

**Effect of Nitrogen Fertilization of Turf on Dollar Spot**—Emphasis in this paper will be confined to nitrogen fertilization and its effect on dollar spot resistance in bentgrass. The important aspects are source, amount and frequency of application.

Some nitrogen sources contain, in addition to nitrogen, potassium, phosphorus, and trace elements. Use of these fertilizers could lead to a more balanced nutrient status for the grass. This would increase growth and reduce dollar spot.

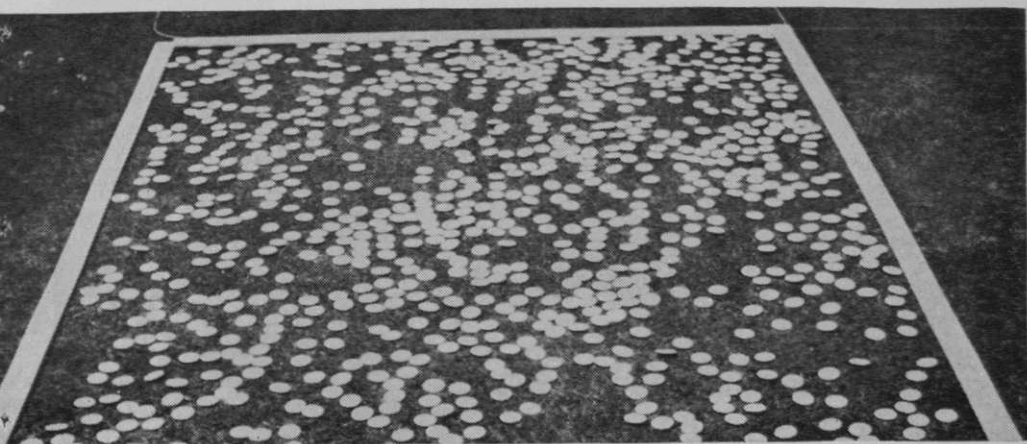
Direct fungicidal effects could arise from the presence of copper, zinc, chromium, iron, etc.

Increasing the total amount of nitrogen may stimulate the grass so that it simply outgrows the disease symptoms. The type of nitrogen may exert its influence by governing the rate of nitrogen release. Nitrogen sources most effective in disease control would supply nitrogen so as to maintain the grass in a vigorous, but not over-succulent state.

**Experimental Methods and Materials**—To investigate these nutrient-turf disease

*Research project sponsored by O. J. Noer Research Foundation, Inc. and Milwaukee Sewerage Commission.*





*Figure 6 Dollar Spot infection of Washington bentgrass which was not fertilized with nitrogen. Note high rate of infection as indicated by number of caps placed over each diseased spot—June 1964.*

relationships, an experimental putting green of Washington bentgrass was established. It was maintained under simulated playing conditions at Iowa State University. One hundred twenty 5' by 8' plots were arranged in eight blocks of 15 plots each. The following nitrogen sources were used: 1-activated sewage sludge; 2-processed tankage; 3-ureaform, urea, ammonium nitrate, ammonium sulfate; 4-sodium nitrate.

(Number 1 is Milorganite, a product of the Milwaukee Sewerage Commission, Milwaukee, Wis.; No. 2 is Agrinite, a product of the American Agricultural Chemical Company, New York, N.Y.; No. 3 is Nitroform (Blue Chip); a product of Hercules Powder Co., Wilmington, Del.; No. 4 is Chilean nitrate of soda, a natural product from Chile.)

Rates consisted of 5- and 10-pound actual nitrogen per 1000 square feet for the growing season. Each nitrogen source was applied in one-pound nitrogen increments at two-week intervals for the ten-pound level, and every four weeks for the five-pound level. A plot without nitrogen (as a check) was included in each block. All plots received adequate amounts of phosphorus and potassium.

Treatments started the third week in May and continued until the third week

of September during each year of the test.

Response of the grass to applied nitrogen was recorded using visual color ratings and growth measurements. Color ratings were scaled, using a one-to-four scoring system with one best. Growth measurements were recorded as yield of foliage, and as percent dry weights.

Differences in potassium, phosphorus, and trace elements in leaf tissue were also determined.

Resistance of Washington bentgrass to dollar spot was evaluated by counting the number of spots. Dollar spot was then correlated with growth response and potassium content of the foliage.

**Results and Discussion**— Color response of turf to nitrogen fertilizer over a four-year period is noted in Figure 1. The five-pound nitrogen level was superior to the no-nitrogen check in every instance, but inferior to the ten-pound nitrogen level. No differences have yet been noted between types of fertilizers applied at the five-pound level. At the ten-pound nitrogen level, the type of fertilizer had an effect on color response. Processed tankage and ureaform produced poor color response. Activated sewage sludge, urea, ammonium sulfate, ammonium nitrate and sodium nitrate gave essentially the same color response.

*Continued on next page*



Figure 7 Dollar Spot infection of Washington bentgrass fertilized with Ammonium Nitrate at 5 lbs. nitrogen per 1000 square feet per year. Note high rate of infection as indicated by number of caps placed over each diseased spot—June 1964.

## DOLLAR SPOT

Continued from preceding page

The color was such that any user would have been well satisfied.

Fresh weight yields reveal that early in the season natural and synthetic organics produce less foliage than the readily available inorganics and urea. By late June, activated sewage sludge caused a larger increase in foliar production than other fertilizer materials (Figure 2). Less response was obtained from ureaform, sodium nitrate, and even poorer yields came from the no-nitrogen checks.

Per cent dry weight (dry matter) is a measure of food reserves in the plant. Reserves increase when growth rates are low and decrease when they are high. Accumulations of these food reserves may increase disease incidence by furnishing disease causing organisms with a readily-available food supply.

Early in the season weather conditions governed the per cent dry weight (dry matter) of the grass. The source of nitrogen fertilizer had little effect. In June, when weather conditions became more favorable, the amount of available nitrogen determined growth and per

Continued on page 42

TABLE 1

Mineral content of Washington bentgrass foliage in parts per million

		K	Na	Cu	Zn
Activated Sewage Sludge	(L) <sup>a</sup>	28600	3100	17.2 <sup>b</sup>	39.8 <sup>b</sup>
Nitrate of Soda	(L)	28500	6200 <sup>c</sup>	10.0	31.7
Activated Sewage Sludge	(H)	31200 <sup>b</sup>	2800	18.2 <sup>b</sup>	42.3 <sup>b</sup>
Nitrate of Soda	(H)	32000 <sup>b</sup>	8500 <sup>c</sup>	10.3	35.7

<sup>a</sup>(H) and (L) refer to 10 lb. nitrogen/season and 5 lb. nitrogen/season respectively.

<sup>b</sup>Indicates values which are significantly greater than others in the column.

<sup>c</sup>Indicates values which are significantly greater than others in the column and also differ significantly from each other.