<table>
<thead>
<tr>
<th>Material</th>
<th>Form</th>
<th>Rate of Application</th>
<th>Time of Application</th>
<th>Response of Pearlwort</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>No treatment</td>
<td></td>
<td></td>
<td></td>
<td>no change, new infestation</td>
<td>nutrient deficiency, infested with annual bluegrass, plantain, chickweed</td>
</tr>
<tr>
<td>2,4-D</td>
<td>spray</td>
<td>0.2% soln. turf wetted thoroughly</td>
<td>June 19</td>
<td>weakened, new infestation</td>
<td>nutrient deficiency, burn injury to grass</td>
</tr>
<tr>
<td>2,4-D</td>
<td>spray</td>
<td>0.4% soln. turf wetted thoroughly</td>
<td>June 19</td>
<td>weakened, very little new infestation</td>
<td>nutrient deficiency, severe burn injury to grass</td>
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<tr>
<td>Chlordane</td>
<td>spray</td>
<td>6 oz. actual/1000 sq. ft.</td>
<td>June 19</td>
<td>spreading new infestation</td>
<td>nutrient deficiency, infested with chickweed, plantain, annual bluegrass</td>
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<td>Chlordane</td>
<td>spray</td>
<td>12 oz. actual/1000 sq. ft.</td>
<td>June 19</td>
<td>no change, new infestation</td>
<td>nutrient deficiency, infested with chickweed, plantain, annual bluegrass</td>
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<tr>
<td>Chlordane</td>
<td>spray</td>
<td>6 oz. actual/1000 sq. ft. 0.2% soln.</td>
<td>June 19</td>
<td>no change, new infestation</td>
<td>nutrient deficiency, burn injury to grass</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>dry</td>
<td>3% lb. N/1000 sq. ft.</td>
<td>June 19, thereafter</td>
<td>no change, new infestation</td>
<td>good color, dense turf, no visible nutrient deficiency</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>dry</td>
<td>3% lb. N/1000 sq. ft. 0.2% soln.</td>
<td>June 19, thereafter</td>
<td>no change, very little new infestation</td>
<td>good color, dense turf, no visible nutrient deficiency</td>
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<tr>
<td>Sodium arsenite</td>
<td>dry/mix</td>
<td>½ oz./1000 sq. ft. 16 lbs./1000 sq. ft.</td>
<td>June 19, thereafter</td>
<td>weakened, very little new infestation</td>
<td>good color, dense turf, no visible nutrient deficiency</td>
</tr>
<tr>
<td>Nitroganic</td>
<td></td>
<td></td>
<td></td>
<td>severely weakened, no infestation</td>
<td>good color, dense turf, no visible nutrient deficiency</td>
</tr>
<tr>
<td>Chlordane</td>
<td>dry/mix</td>
<td>6 oz. actual/1000 sq. ft. 16 lbs./1000 sq. ft.</td>
<td>June 19, thereafter</td>
<td>no change, little new infestation</td>
<td>good color, dense turf, no visible nutrient deficiency</td>
</tr>
</tbody>
</table>
Professionals shown are not members of the MacGregor Advisory Staff but endorse MT Golf Balls through choice.

These outstanding home pros, like hundreds of others, go for the MT ball because it goes for them! Here's why the MT leads the popularity parade among the career men of golf: It has won most major tournaments this year*; it attracts pro-shop customers in 146,000,000 nation-wide "buy-MT's-at-the-pro-shop" ads; it is backed by MacGregor's 20-year Pro-Sold-Only policy!

The MT is the center of attraction among pros because it's one of the main attractions in a great line of profitable, quality merchandise which can be purchased in Pro Shops only!

*Note: The asterisk indicates missing or incomplete data.
center of attraction!

Eddie Williams
Louisville Country Club, Louisville, Kentucky

Howie Affen
Dubuque Golf & Country Club, Dubuque, Iowa

*Both Men’s and Women’s Championships

MacGregor
The Greatest Name in Golf
CINCINNATI 32, OHIO
Donovan Radio Program Has Most Queries in 5 Groups

By GENE SHUMATE

We've discovered what the average golfer worries about the most. His biggest worry, briefly, is his golf game.

Each week during the past summer, Frank Donovan, pro and owner of Clover Hills Golf Course in West Des Moines, Iowa, has taken a golf club in hand, stepped up to a Radio Station KSO microphone and answered questions that had been stuffed into a question box in the pro shop.

The broadcast feature was recorded at the course, just off the first tee, and then played back on the air in the evening. Frank has made good use of the radio to promote the game of golf in general and his own course in particular. Among other things, he was a co-sponsor of the KSO broadcasts of the NCAA basketball tournament in Kansas City last March.

"Using one sport to help promote another is logical to me," said Frank. "Basketball in late March led sports fans into golf in early April."

By the end of some 20 weeks in the summer he had answered 99 questions on the air. All of the questions were saved and analyzed at the season's end. Judged by frequency of questions, it breaks down these are the five subjects most people wanted discussed:

1. The Approach
2. Pulling
3. Topping
4. Balance
5. Slicing

And the frequency was in the order listed.

Approach. This category topped all others by more than 2 to 1. Most questions had to do with how to use a wedge or 9 iron and how hard to hit the ball.

(Donovan's answer: How hard to hit the ball is something that you will have to find out for yourself by a lot of practice. As to how to hit the 9 iron or wedge, do the opposite of your normal desire. Hit down on the ball instead of scooping it. Hit down on the ball, turf afterwards. You acquire backspin this way, too. And remember, hit down on the ball. The pitch of the club face takes care of the loft.)

Always the promoter of golf, Frank gives many demonstrations on Saturdays and Sundays when the players are stacked up on the first tee. These extemporaneous first-tee lessons serve a dual purpose. They improve the player's game and make him a more enthusiastic golfer. It also takes his mind off the fact that he's way down on the waiting list to tee off.

Pulling. What makes me pull shots to the left?

(Donovan's answer: The same thing that makes you slice with a wood makes you pull with an iron. You're hitting outside-in, instead of inside-out. If I had an hour, I could do more justice to the swing, since it's the basic part of your game. But in a short time, I can just give you a sketch. Don't sway with your body. Pivot instead.

And on the backswing, the shoulders should move horizontally and not vertically. On the downswing, they should be more vertical and not horizontal. Vertical backswing and horizontal downswing will make you "sweep" from outside-in, causing a pull with irons and slice with woods. Keep right elbow in on swing, not turning it loose until after you have hit the ball. Put weight on right foot on backswing, on left foot on downswing. Start downswing with lower part of body, but don't take the left hip beyond the original starting point. You have to hit against it. Getting your left hip completely out of the way is another cause for "sweeping" from outside-in.)

Unanswerable Problem

Once in awhile Frank gets a question he can't answer; like the one in which a golfer was complaining about getting too much distance with his irons. He hits 4 irons 200 yds., he said. Frank shrugged when asked the solution and said, "I can't see where he has much of a problem."

Donovan's biggest problem came in talking the one time he had to broadcast in the studios. He felt lost without a golf stick in his hands. The difficulty was finally
The accomplished golfer and the successful business man want only the best, both in work and in play. As a result, they enjoy a mutual admiration in their ULTRA HAIG woods, irons and golf balls. There is nothing finer, and they're available only through golf professionals, the grandest gentlemen I know.

The Haig
THE ULTRA IN GOLF EQUIPMENT

WALTER HAGEN • Division of Wilson Sporting Goods Co., Grand Rapids 2, Michigan

May, 1954
solved when one of the engineers found a dust mop for him to hold.

During the series one woman signed her question "A housewife" and begged for help, "before I break up our happy home." Her trouble was topping the ball, the third most frequent question asked.

**Topping.** What makes me top the ball? Or, as one golfer wrote, "From a good true swing the $\#\&%*^{\frac{1}{2}}$ & $*^{\frac{1}{2}}$$%$ ball cuts a $^{\frac{1}{2}}$$%$ & $*^{\frac{1}{2}}$$%$ groove in the ground and goes all of 30 or 40 lousy yards."

(Donovan's answer: For the most part, topping a ball comes from hitting in on the upswing, caused by keeping the weight on your right foot on the downswing.

Actually, sometimes golfers will reverse the proper procedure of weight-distribution and have the weight on the left foot on the backswing and on the right foot on the downswing. You should shift weight in a golf swing just as you do in walking . . . left, right, left, right.

(And, of course, a lot of topping trouble comes from the same thing that gives trouble on short irons like the wedge and 9 iron. You're not giving the clubhead a chance to work for you. You can't believe that hitting down on the ball will get the ball up in the air, so you scoop. It will get the ball in the air or the manufacturers wouldn't continue building clubs with loft.)

**Balance.** What makes me topple forward after swinging?

(Donovan's answer. An improper stance and swing. At the start of the swing, the weight of your body should be evenly distributed on both feet and on heels as well as toes. Bend your knees when you address the ball and keep them bent. Shift your weight . . . right on the backswing, left on the downswing . . . and follow through. And hit from the inside-out! An outside-in swing throws you off balance.)

**Slicing.** What makes me slice?

(Donovan's answer: Swinging outside-in instead of inside-out. Same basic reasons as to what makes you pull. I refer you to the discussion on pulling."

**Five Groups of Main Problems**

Of course, there were many other questions asked besides those covered, but the five general classifications were dominant. Many radio listeners were interested in rules and regulations and what to do with a golf club found on the golf course, etc.

One player, who had seen Frank Donovan play, wrote, "Why does Frank have such a fast backswing?" The Irishman had an answer for that one, too. "I used to have a slow backswing, just like I advocate for others," said Frank. "But once I was playing in Sioux City and on the fourteenth tee I started a backswing and a small boy ran over and grabbed the ball and took off. I made up my mind then and there that this would never happen again."

Mississippi Valley Supts.

**Compare Planting Methods**

RALPH GUYER, sec.-treas., Mississippi Valley Golf Supts. Asstn., relays a report from Ralph Sehrt, supt., Westwood CC (St. Louis dist.) on methods of incorporating U3 Bermuda into fairways which were employed at Westwood.

An area of about 1 acre in Westwood's No. 1 fairway was selected for the test of the following method: 500 lbs. of Verta Green 5-10-5 was applied to the area July 3 and 3 days later the plot was aerified with 1-in. spoons. After aerifying, 100 bushels of U3 Bermuda stolons from the Westwood nursery were applied by a manure spreader, then cut in with a seed drill and rolled. It was watered every 10 days, then as needed. Thirty days after planting it was fertilized again with 600 lbs. of Milorganite. Time for actual planting of the area was 12 man-hours.

When the Mississippi Valley supt.s had their Field Day at Westwood last September the plot had 85 per cent coverage.

The other plot on No. 10 fairway was burned off with sodium arsenite (1 oz. to 1000 sq. ft.) prior to planting. On July 16 a strip 20 ft. wide and 300 yds. long which had been burned off was aerified 3 ways with 1-in. spoons and disced lightly. Same fertilization as used in the other method was applied.

U3 stolons were applied with a manure spreader. Six yards of very dry topsoil was applied with a lime drill. The same watering procedure as on the No. 1 fairway job was used.

The 10th fairway was left in play. A ball landing on the U3 strip could be dropped away. The No. 1 fairway also was left in play but was rough for a while.

In September the 10th fairway plot had 90 per cent coverage.

Both methods were successful. Al Lin-kogel, who was associated with Sehrt in the work, said results showed it was not necessary to apply topsoil as was done in the 10th fairway work, as the 10th fairway only had 5 per cent more coverage than the first fairway area.
Famous golf stars from the United States and 20 foreign countries!

$205,000 IN PRIZES!

Sponsored by the George S. May Company and the Professional Golfers' Association of America

Again this year—and for bigger prizes than ever—nearly 200 of the best male and female professional and amateur golfers in the world congregate at Tam O'Shanter for the world's greatest golf matches! 10 thrilling days of slam-bang golf by the world's greatest golfers.

Remember Worsham's 104-yard shot?
Last year's winner of the World Championship of Golf made the sensational 104-yard approach shot that was "heard 'round the world" and gave him first prize and the $25,000 first place money. Can Lew do it again this year or will the competition be too tough?

Brilliant golf on 6,915 yard course!
Bring your family, friends and business associates to George S. May's Tam O'Shanter—one of the most beautiful golf clubs in America. This year, for the first time, the International Cup Matches will be played between the two major tournaments. The first prize in the World Championship of Golf is $100,000. Come and see who the leading money winner of all time will be in 1954!

Free Parking!
ADMISSION: $3.00
Including Tax—Every Day

George S. May's Tam O'Shanter
Caldwell Road and Howard Street (7600 North-6600 West)
BERT MONTRESSOR and Dare Davis have opened their night-lighted Par-3 9-hole course in Sarasota, Fla., not far away from the site where John Hamilton Gillespie from Dumfrieshire, Scotland, in 1866 built what’s believed to be the first practice golf course in the U. S.

Gillespie became Sarasota’s first mayor in 1902. He died in 1923 after seeing property value fluctuations in Sarasota that made and lost fortunes. The canny Scot never scored financially with his native pastime anyway near the extent to which Montressor has on Florida’s west coast. Bert ran a small investment in a golf range that he operated in Sarasota during the winter away from his northern pro job into property holdings in the city reputed to be worth in excess of $350,000.

This Par-3 course owned and designed by Montressor and Dare was formally opened Feb. 7 with an exhibition match between Babe Zaharias and Betty Dodd and the Bauer sisters, Marlene and Alice Hegge. The girls played 9 holes in the afternoon and repeated under the lights, beginning at 8:30. The opening was covered by Fox Movietone News.

Fairways are Ormond Bermuda and the greens are Everglades No. 1 Bermuda. An 8 in. well on the property supplies water for the tees, fairways and greens of the course and the driving range adjacent. The range has 18 grass and 18 rubber mat tees.

**Course Is 865 Yards**

<table>
<thead>
<tr>
<th>Hole</th>
<th>Length (yds)</th>
<th>Green Area (sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70</td>
<td>1,710</td>
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<tr>
<td>2</td>
<td>130</td>
<td>1,980</td>
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<td>3</td>
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</tr>
<tr>
<td>9</td>
<td>75</td>
<td>2,340</td>
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</tbody>
</table>

865 yds. = 19,233 sq. ft.

The entire Par-3 course can be watered at one time. Aluminum portable pipe is used for range watering.

**Lighting Is Model Job**

Illumination is believed to be the most advanced job done on a course of par 3 holes. Wiring of the course and of the range is underground. Lighting units are placed on the palm trees.

Considerable experimenting and studying was done before locating the units for

Gallery completely surrounds fairway and green of first hole during exhibition matches played during grand opening of the Par-3 course. Tee line of adjoining driving range can be seen at left of club house. Range was closed during opening day ceremonies and used for parking area.
Unusual feature of the Montressor-Davis Par-3 layout is the absence of light poles and wires. All wires have been laid underground and lights have been mounted on palm trees as shown on two above.

vertical and horizontal beam lighting. There is no spotlighting of greens. Light is diffused so shadows are minimized. Light meter recording shows between 15 and 25 candlepower at green surface.

General Electric, Graybar, Westinghouse and Benjamin Electric engineers were consulted before determining the lighting installation. The lighting is proving satisfactorily economical in operation.

An interesting point about the lighting is that Tim F. Fenton, supt. of the layout says that heat from the lights prevents turf trouble that could be expected from considerable play on turf drenched by heavy evening dew.

The entire establishment, short course, range, clubhouse and pro shop, with lighting, cost approximately $60,000. Plans are to expand the Par-3 course to 18 holes.

Now the Montressor-Davis enterprise is virtually a small country club in a city. Its pro staff of Montressor, E. W. (Pop) Herbert and Ronny Graham is kept busy at the lesson tees.

"Secret" of Swing in Left Shoulder, Says Doctor

THE GOLF SECRET. By H. A. Murray, M.D., Published by Emerson Books, Inc., 251 W. 19th St., New York 11. Price $2.50. Murray, a British doctor and golf student says in his interesting 142 page book there are three factors in the golf "secret": First; having the upper part of the spine horizontal or nearly so, thus permitting a practically perpendicular revolving of the shoulders around it. Second; the left shoulder is the point of concentration in revolving the shoulders around the horizontal upper part of the spine, and all movement below the chest is secondary to this, and automatic. Third; one must have the sensation of swinging directly upwards, both on the backswing and forward swing.

Simple diagrams illustrate his points.

The book has the decided merit of clearly explaining a number of points that often confuse pros' pupils and does the job without going into tedious and confusing detail.
Every golfer will stop, look and read when

BOBBY JONES
TALKS ABOUT GOLF
AND LOWER SCORES

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