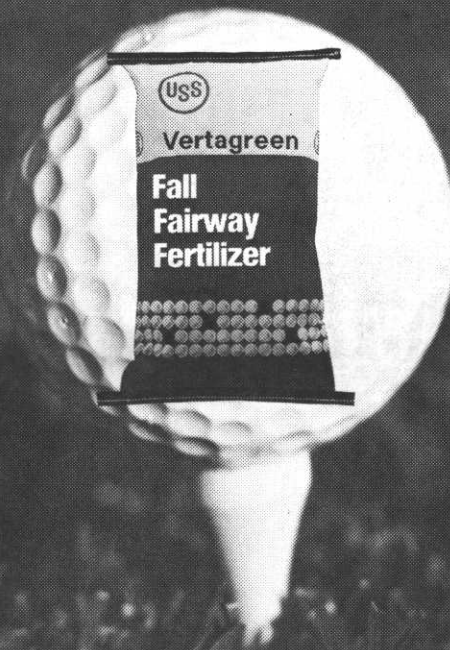


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resist disease problems such as dollar spot and brown spot. A soil test in the late summer or early fall will determine if your fairways lack this vital nutrient. And if they do, USS Vertagreen Fall Fairway Fertilizer is the answer because it's formulated with primary nutrients specifically for your area.

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# FOREST HILLS DRAWS PRAISE

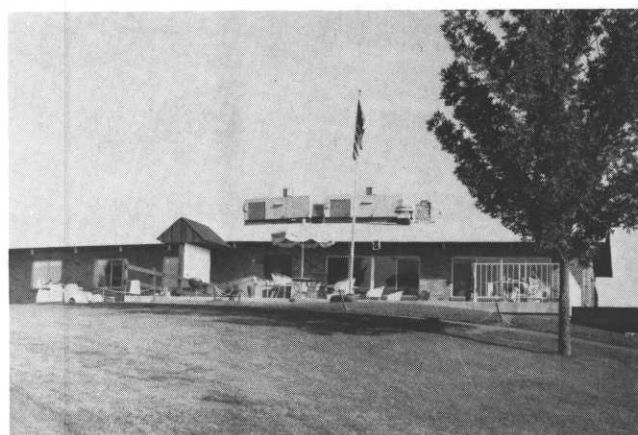
Sunny and windy weather greeted the members and friends of the M.G.C.S.A. as they gathered at the newly reconditioned Forest Hills Golf Club for their August meeting. Approximately 75 members were in attendance for this meeting, with about 40 of these partaking in an enjoyable round of golf over this finely groomed course. Host superintendent, Carl Johnston, and his staff have made a number of major changes since the last meeting of the M.G.C.S.A. at Forest Hills, and almost every golfing participant told Carl of the almost amazing improvement that the course has shown in the last couple of years. The only thing that was found not to have improved at Forest Hills this day were the scores of the contestants. No sub-par rounds were posted, as the course with its many rolling hills and more than ample supply of water hazards proved to be a challenge that was never quite overcome. Gerry Commers and the fine people at Cushman Motor Company supplied a refreshment oasis for all the golfers between nines and after the round. We would like to thank Gerry for his generosity on a day when the temperature made these refreshments greatly appreciated.

A short business meeting followed the golf with President Dean Sime chairing it. Several important subjects were discussed including the plans for an Associates Appreciation Dinner, the preparation that has taken place for the Annual Golf Tournament next month and the remainder of the meeting schedule which the Arrangements Committee has done such a fine job on this year. Also at this meeting seven new members were accepted into the organization. Their names are listed elsewhere in this issue and we would like to take this time to give them a hearty welcome from the staff of HOLE NOTES.

After the meeting everyone adjourned upstairs to a fine prime rib dinner with all the trimmings. We would once again like to thank the host superintendent, Carl Johnston, and all the people at Forest Hills for showing us such warm hospitality and for making this an all around pleasurable day.



**DEMANDING.** The Par 3 10th Hole at Forest Hills demands a perfect shot due to a water hazard in front and the bunkers to the left and right of the green. Many 4's and 5's were reported with a shortage of 2's and 3's.



**ACCOMMODATING.** The cool and friendly confines of the Forest Hills Clubhouse proved to be a perfect setting for the meeting and dinner that followed a fine afternoon of golf.

# The Bluegrass Billbug

## Outbreak in Minnesota

by Scott Sargent, Entomologist  
Northrup, King and Company  
Eden Prairie, Minnesota

If your turf has shown brown patchy areas this summer, it may be victim to the bluegrass billbug. The bluegrass billbug is an insect that has been present for at least 100 years in the Midwest and has been observed to be a serious pest of bluegrass in Nebraska since 1961. Yet, we know of no serious outbreaks of the pest in turfgrass in Minnesota before 1976.

The weather this summer has been abnormally hot and dry in central and southern Minnesota, the temperature and rainfall readings being more typical of a Nebraska summer. Thus, conditions have been good for an outbreak of a Nebraska pest, the bluegrass billbug.

The first billbug damage we noticed this year was in the southwestern Minneapolis suburb of Eden Prairie at the home of Northrup King turf agronomist, Howard Kaerwer. In early June, Kaerwer noticed that his relatively problem free Nugget bluegrass lawn was developing symptoms that from a distance appeared to be a mild case of "dollar spot". During the week of June 21, however, the symptoms changed from barely noticeable to severe, the turf showing many unisghtly brown spots. Examination of the turf revealed the small,

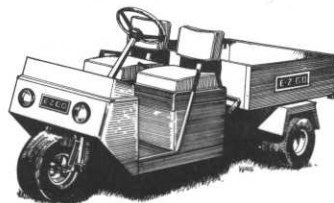
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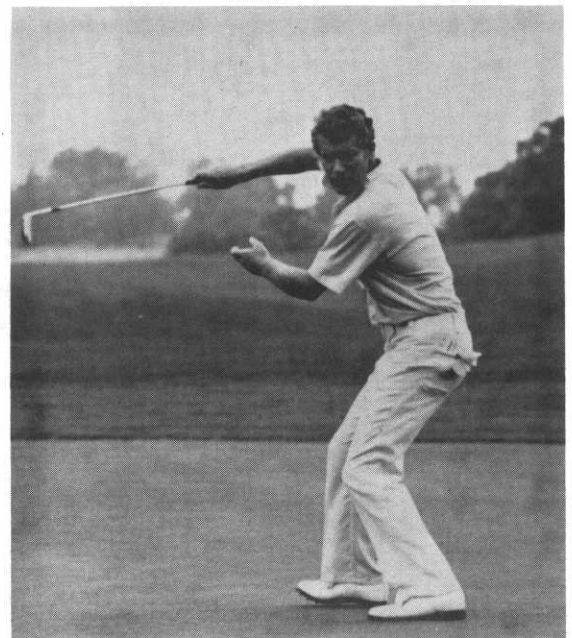
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## FEATURED SPEAKER



Governor Wendell Anderson, an avid golfer as shown by the picture above, will be the featured speaker at the M.G.C.S.A. Annual Golf Tournament. It was also announced that genial Jim Kaufman of Minnesota Toro will be the master of ceremonies.



white, legless larvae of the bluegrass billbug. A survey of Kaerwer's neighborhood showed that many of the lawns in the vicinity were damaged by the billbug.

In the weeks that followed we found billbug damage in lawns all over Eden Prairie and at Excelsior, Minnesota. We found it killing many of our bluegrass and ryegrass clones and in turf plots at the Northrup King research facility in Eden Prairie. University of Minnesota extension entomologists received reports of billbugs in lawns in St. Paul, Minneapolis, Brooklyn Center and in Kandiyohi County west of Minneapolis. The billbug appears to have been a general problem this year, at least in the Twin Cities area.

Damage by the bluegrass billbug is not very evident until late June. Until that time, the young larvae feed inside the grass stems, killing only the stems fed upon. Later (late June through late August) damage is more noticeable in that older larvae feed upon the crown and roots. Tufts of grass in damaged areas are very easily pulled apart from the roots. A sand-like grass is seen at the separation point and into the stem where larvae have fed. In areas of large numbers of larvae the turf may be completely killed. Bluegrass billbugs prefer higher areas of bluegrass lawns and damage will be most prominent there.

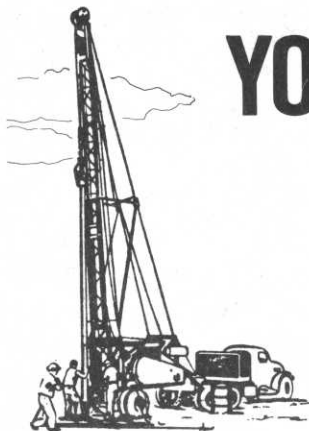
The billbug larvae, which may be found in the turf crown area and root zone, are small, fat-bodied white larvae with a brown head. They have a humped-back appearance and reach a length of up to about one third inch.

The billbug adults are black weevils about one fourth to one third inch in length. They have a distinctive long snout and rows of puncture marks on their backs. The adults emerge from the pupal stage starting in mid July, will overwinter, and deposit eggs starting in late May.

University of Nebraska extension entomologists suggest the following insecticides for controlling bluegrass billbugs: Diazinon 25% EC at 8 fl. oz. per 1,000 sq. ft., Diazinon 5% G at 2.5 lbs. per 1,000 sq. ft., Sevin (carbaryl) 50% WP at 7 oz. per 1,000 sq. ft., or Dursban (chlorpyrifos) 22% EC at 3 fl. oz. per 1,000 sq. ft. Insecticides should be applied in mid May to kill the adult billbugs before they deposit their eggs. Control of billbug larvae is difficult to accomplish and is not recommended. The best thing to do after May is to keep the turf well watered and fertilized.

It is suggested that 1 tablespoon of 1 percent pyrethrins in two gallons of water be applied to 2 square feet of turf and wait 15 minutes to flush the adults from the thatch area. This should be done in May to determine if billbugs are present and whether or not controls will be needed.

If you suspect that you had bluegrass billbugs this summer, be on the lookout for this insect next May. Prompt control at that time may prevent an unsightly appearance to your turf later in the summer.



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# IRRIGATION ON GOLF COURSES

George R. Blake  
U of M Soil Science Department

Too much water! Seems impossible in 1976. But that's what I see on a large number of golf fairways and greens. Overwatering is still a serious problem on the majority of courses.

Plants normally grow best if watered thoroughly but less frequently. Automatic systems are usually set to add a small amount of water, but frequently. But the intelligent superintendent can resist the water-by-the-clock syndrome with a little thought and scheduling.

Healthy plants require healthy roots. Healthy roots aren't developed in wet soils. They develop during the drying out cycle. Keeping them wet with too frequent and too much water encourages poorly developed, shallow roots and sickly turf. The result is that the grass is susceptible to plant diseases. And worse, there is a slow conversion to less desirable turf species that occurs over a few year's time. The best way to encourage poa annua on fairways or greens is to overirrigate!

In most cases just reducing the running time on your system will correct a lot of the problems of overwatering. If you now run 18 minutes, try 15 minutes. If that proves to be too much, cut the time again. It will not only be better for the turf, but it will reduce your power bill.

Some overwatering problems are due to poor system design. What looks good on a shop drawing may result in placing nozzles in low spots or so that they overlap at the low ground area. The result is a superabundance of water just where it is least needed. Runoff from rain or snowmelt, shallow water table at that point and then compounded by excessive irrigation, results in a mushy spot where the mower wheels make ruts and the turf is cut to pieces as if in a swamp.

To make matters worse, unless the heads have a checkomatic feature, water flows into the area from higher-lying pipes every time the water is turned off. The head continues to dribble into the surrounding soil.

(continued on Page 7)

## "GREEN SAVERS"

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## FOREST HILLS SWINGERS



**DETERMINED.** John Lightfoot of the Cloquet C.C. is determined once again to regain his high bowler's score award at this year's tournament.



**PAINFUL.** The expression on the face of Steve Hagen of St. James shows the lower back pain brought on by another full follow-through.

Solutions that may be considered in or near low-lying areas where overirrigation is most severe include replacing the old head with one that has a checkomatic feature. Another solution is to excavate near the head, put in a by-pass pipe fitted with valves and irrigate with that particular head only when it is needed. Maybe that spot needs water only once every two or three weeks. With normal rainfall, that usually brings runoff to the low area, maybe the sprinkler need run only a couple of times in a whole season! If you have a modern irrigation system with valve-in-head controls and heads with a checkomatic feature, you are fortunate. All you need do is adjust the individual heads to fit the conditions where they exist. It is quite possible that a high spot will need 3 to 4 times as much irrigation as a low spot. This is partly because of lower demand in the lower spot, partly because of the added water it gets from runoff. Furthermore, the soil in a low spot can usually store more water because it has more clay and more organic matter than the high spot.

If you could redesign the irrigation system for your course, most of you could make design improvements. With the system you now have you must work with it, make adjustments or even minor changes. These will pay off in avoiding the aggravation of overly wet spots, to say nothing of improved golfer satisfaction.

Start first by cutting down on sprinkling time. See how little irrigation you can get away with. Adjust down until you begin to border the lean side. That's where your turf will respond with greatest health and vigor. And that's where you'll be favoring the good species over the less desirable ones.

The old question of a little's good, more is better! That's nonsense! A superintendent works against himself if his watering practices conform to that philosophy. Add the water you need and no more. You'll be happy with the results as they show up over the next couple of years.

# Green Clippings

CLIP 1: We have received word from Research Chairman Jim Lindblad that the M.G.C.S.A. Research Fund is still considerably short of the goal that was set for 1976. Please talk to the appropriate person at your club so that we may receive these donations before the golfing season flies by us. One way in which the fund is growing is the \$1.00 assessment that is levied on all members not wearing their official name tags at the monthly meetings. This policy was announced several months ago in a previous issue of HOLE NOTES and was enforced for the first time at the August meeting at Forest Hills.

CLIP 2: Life Member Ray Hall of Owatonna is not quite ready yet to call it quits on the work front. He has asked us to mention that he is looking for a part time job either in the summer or winter. He is free to travel and adds that the amount of remuneration is no problem. With all his experience and mechanical ability, I am sure that he would be a bonus to any superintendent's staff. Ray's address is: Ray Hall, Box 522, Owatonna, Minnesota 55060....Telephone (507)451-9926.

CLIP 3: You don't have to be a long ball hitter to win this month at Hazeltine. Golf Tournament Chairman Carl Johnston has announced that there will be a chipping contest and hole-in-one contest as well as the popular raffle which will be held this year. So don't agonize over some shortcomings on the tee! Instead go out and practice your short game so you, too, can get in on all the prizes including a Johns-Manville Club Car donated by Gerry Commers and the Cushman Motor Company.

CLIP 4: M.G.C.S.A. Executive Director Warren Rebholz asks that all superintendents make sure they trim around the M.G.A. markers on each tee. The golfers in the state have come to enjoy the important functional value of these markers and without periodic trimming, they can easily be lost in the overgrowth.

CLIP 5: HOLE NOTES has received word from the National Office that interest in the post-conference Hawaiian Tour is running high. Over 60 reservations have been received already for the trip February 12-19, 1977. If you are interested in plans "Follow the Sun to Hawaii", make your reservations soon as the tour is limited. Non-G.C.S.A.A. members and their families are also eligible to take advantage of this eight day luxury tour. The descriptive brochure and reservation form are available upon request from G.C.S.A.A. Headquarters.

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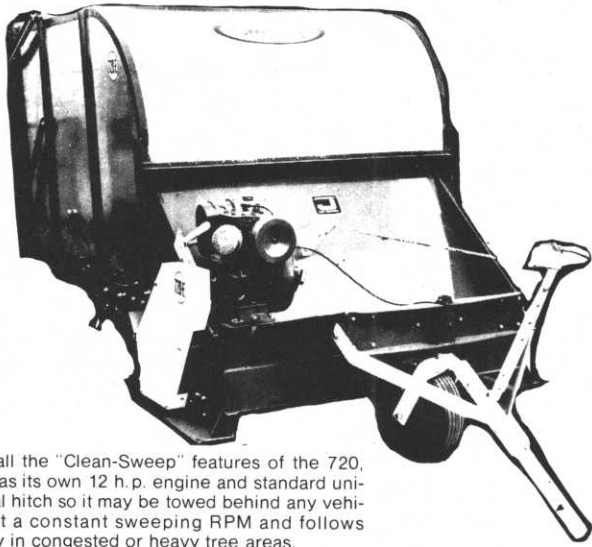
Golf Course Equipment Field Day at the Landscape Career Center, Friday, September 17, 1976 from 10:00 a.m. - 2:30 p.m. Come, see and operate the equipment. Bring your assistant and mechanic along also. Take 7th Ave. North off of Hwy. 10 in Anoka to Center (behind Anoka Senior High School)

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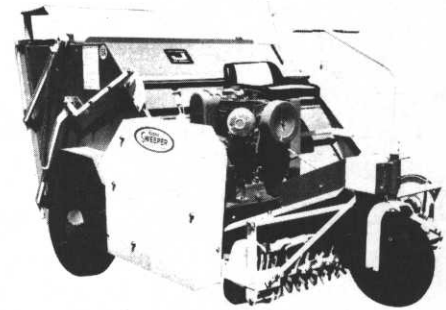
Sweeps wet or dry, positive pick-up of even the most stubborn trash. Features a full 60 inch swath, and holds a full five cubic yards of material in Hopper.

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Big twelve-bladed 36" impeller delivers air velocity many times hurricane speed.



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The Jacobsen Model 40 Blower has proven itself by years of use on golf courses, cemeteries, schools, parks and airports. Its heavy-duty design with 3-point hitch, chain driven 36" impeller powered from P.T.O. and all-steel welded frame provides efficient one-man operation.

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# MGCSA ANNUAL GOLF TOURNAMENT

## Hazeltine National Golf Club

### Chaska, Minnesota

**MONDAY, SEPTEMBER 20<sup>th</sup>, 1976**

Registration must be received by Carl Johnston, 799 11th Ave. S.W., Apt. #111, Forest Lake, Minn. 55025 by September 13, 1976. (Late entries cannot be accepted.) The same deadline applies for dinner only. Dinner only reservations must be made at the same place.

There will be a double shotgun start, 8:30 a.m. and 1:30 p.m. The first 30 foursomes will play at 1:30 p.m. and the rest will play at 8:30 a.m. You will be notified of starting time and which hole you will be starting on. NO EXCEPTIONS WILL BE MADE SO PLAN EARLY. IF YOU NEED TIME TO FILL YOUR FOURSOME INDICATE ON ENTRY FORM AND SEND THE MONEY TO COVER THE GROUP. YOU THEN CAN FILL IN YOUR ENTRIES' NAMES THE DAY OF THE TOURNAMENT.

Only one foursome per club will be excepted. If an assistant is not included in the Superintendent's foursome, he will be assigned a starting time and foursome. He cannot bring guests. Associate members may not bring guests. (Exception) All members may bring a guest to dinner but must make reservations with Carl Johnston by Monday, September 13, 1976 as outlined in the first paragraph.

The entry fee is \$19.00 per person and will include golf, dinner with tax and gratuities included. Prize money is also included in the entry fee.

PRIZES WILL BE AWARDED AT THE DINNER

Lunch will be available at the Hazeltine National Golf Club. The cost of the lunch is not included in the entry fee.

Cocktail hour will be from 6:30 p.m. to 7:30 p.m. with dinner to follow.

**(1:30 SHOTGUN FILLED)**

RESERVATION FORM

I will be unable to play golf but will be there for dinner and I will have \_\_\_\_\_ guests. Dinner tickets \$15.00 per person. MGCSA Member's Name \_\_\_\_\_

Registration for Golf:

MGCSA MEMBER NAME \_\_\_\_\_ Title \_\_\_\_\_ Hdcp. \_\_\_\_\_

Name of Guest \_\_\_\_\_ Title \_\_\_\_\_ Hdcp. \_\_\_\_\_

Name of Guest \_\_\_\_\_ Title \_\_\_\_\_ Hdcp. \_\_\_\_\_

Name of Guest \_\_\_\_\_ Title \_\_\_\_\_ Hdcp. \_\_\_\_\_

Number of Carts Preferred \_\_\_\_\_ Number of Carts You Must Have \_\_\_\_\_

Cart rental will be \$6.00 per cart. Please include this amount in your entry registration. REMEMBER YOUR CHECK FOR THE FULL AMOUNT MUST ACCOMPANY YOUR ENTRY FORM. PLEASE indicate morning or afternoon tee times.