

Iron chlorosis will be quite prevalent under these conditions. Spraying of iron sulfate or chelated iron compounds during these periods will be most beneficial.

Desiccation—wilt—is more likely to occur when internal drainage is poor and it may become necessary to syringe turf frequently in spite of the fact that the soil may be at or near the saturation point. This is especially true if temperatures or wind movement are high.

One of the more serious and direct effects of excessive rainfall on soil is structural deterioration. This may result from the beating action of the raindrops, or from the traffic—both player and equipment—to which the area is subjected. Permanent rutting and footprinting is likely to occur if the wet soil is subjected to traffic during these periods.

Spike diking of greens during the summer months will do much to offset some of these adverse effects. Spiking is recommended over aeration during the summer because of the reduced growth activity of cool season grasses during the summer.

Growth. The prevailing temperature and the fertility level of the soil also must be considered in a discussion of the effects of excess rainfall on growth activity.

Prolonged rainfall will tend to extend the spring-like growth of turfgrass if the temperatures are moderate. Such conditions result in a soft succulent turfgrass that is easily damaged by traffic (has poor wearability) and which is more susceptible to attacks by disease and insects. These factors weaken the permanent turfgrass and open them up for weed invasion. Sudden "hot spells" during such periods intensify these situations and may prove disastrous.

Courses subjected to heavy play will suffer to a greater extent than those with light traffic. The frequency of fertilizer applications, especially of nitrogen, will have to be increased to offset that utilized for the additional growth, as well as that lost by leaching.

From the standpoint of disease incidence, it is well to remember that the effectiveness of fungicides may be reduced by heavy rainfall. More frequent applications may be necessary and the use of a wetting or "sticking" agent is recommended. Algae and fairy ring activity will be greater. (Fairy rings appear to have been especially noticeable this season. Dr. Rowell of the University of Minnesota has suggested the use of cadmium compounds for this disease. He suggests drenching the active area with a solution four or five times as strong as the normal rate.)

Annual weed growth, especially grasses such as crab, barnyard, pigeon, foxtail, etc., as well as clover, chickweed and knotweed will be much greater during wet rainy seasons. Chemical treatment of these weeds with the appropriate herbicide will aid materially in controlling their increase.

For sterilizing areas to be replanted, Methyl bromide and Vapam are suggested.

The Field Days at Purdue on September 16 and 17 were a big success. As far as we could count, there were about 100 present each day. This is not an accurate figure, but it does show the interest shown by the Superintendents in turning out in such numbers at a busy time of the year. As usual, Bill Daniel had a wonderful program and it was most interesting to all.

## WISCONSIN NOTES

Most of Wisconsin has suffered from lack of moisture this year. The ground was extremely dry at the start of last winter. Snowfall thruout the winter months was below normal. My records at North Hills show only 11 days in which  $\frac{1}{2}$  inch or more rain fell in a 24-hour period and of these 11, only 3 showed more than 1 inch of rain. This record covers the April 1 to September 1 period. This has caused a very dry subsoil. While light rains have kept shallow rooted plants green and growing, drying out takes place very soon after any rain and deeper rooted plants such as trees and shrubs show a lack of growth because of lack of moisture.

The Wisconsin Golf Course Superintendents Association held it's Annual Fall Tournament meeting at Pine Hills Country Club, Sheboygan, Wisconsin on Monday, September 16. The day was clear and cool and the course, which is very hilly, and interesting, was in the finest condition. It was an excellent test of golf, an ideal location and a truly fine course for our Tournament. William Eickberg, our Host, has done an outstanding maintenance job on this course. Robert Testuide, Green Chairman, went all out to see that we had a good time. There were prizes galore, with some 49 in all. Our thanks and appreciation go to the many commercial men who added to our prize list.

### PRIZE WINNERS

Low Gross: 1 Jack Taylor, 74; 2 Joe Knice, 78; 3 Allen Kress, 83; 4 Tony Kozenski, 83. Low Net: 1 Paul Jensen, 95-25-70; 2 W. Stepanik, 86-15-71; 3 Art Post, 99-25-74; 4 A. Gross, 96-20-76; 5 Pat Rooney, 92-16-76.

There were also over 40 Blind Bogey and Door Prizes.

Our next meeting will be at Ozaukee Country Club, Milwaukee district, Oct. 1.

Charles Shiley

### SCHOLARSHIPS PLACED

Two scholarships of \$100.00 each have been placed by the Golf Course Superintendents Association Scholarship and Research Fund at The Pennsylvania State University, University Park, Penn., for the Turfgrass Management Winter Course to be offered under the College of Agriculture.

The complete Turfgrass Management Course consists of two eight (8) week terms in the 1957-1958 school year, a Placement Training Period of six (6) months with employment in a specialized turfgrass field from April 14 to October 18, 1958, and two eight (8) week terms for the 1958-1959 school year. Established to meet the ever-growing demand in this specialized turfgrass field, The Pennsylvania State University will call on its exceptional personnel and facilities to provide a compact, practical course in turfgrass management. The course has been designed to permit those who might be employed on a golf course or in other fields to attend.

The recipients of the Scholarships shall be chosen by the University and must meet the requirements set up by their Scholarship Committee.

Placing of these two Scholarships by the Golf Course Superintendents Association Scholarship and Research Fund is part of a continuing program for personnel and turf improvement. Other activities of the Fund include a \$400.00 Scholarship at Purdue University, Lafayette, Ind., and a \$500.00 Research Grant placed at the University of California at Los Angeles.