

THE BULL SHEET, official monthly publication of THE MIDWEST ASSOCIATION OF GOLF COURSE SUPERINTENDENTS. Editor, William H. Stuppel, 543 Michigan Ave., Highland Park, Ill. Associate Editor, Joe Dinelli.

THE PRESIDENT'S MESSAGE

Our last meeting, held at the North Shore Country Club, was well attended by both Midwest members and our guests, the Wisconsin group. It was certainly a pleasure to see such a large turnout. I am sure everyone enjoyed the fine talk given by Jim Watson. The Midwest boys are to be congratulated for again winning the golf trophy.

To those of you who are not members of the National Association, may I urge that you do join. It is necessary for our association to have 60% of its members belong to the National in order that we may have a delegate represent us at the Convention in February. It certainly seems a shame that Midwest, the largest organization in the National, is unable to support a delegate. Let's do something about this and soon, for it is important. I would suggest that each one of us appoint himself a committee of one to secure more members for the National.

Be sure and sharpen up your golf game for the annual tournament to be held at Medinah on October 7. Will see you all then!

AMOS E. LAPP

President

OUR SEPTEMBER MEETING

Our September meeting was held at North Shore Country Club on Monday, September 9. This was our Annual Joint Meeting with the Wisconsin Golf Course Superintendents Association and we had a very good turnout. There were 104 golfers and 140 for dinner that evening. Ray Davis was our host and did everything in his power to make the meeting enjoyable for all. Dr. James Watson was our Guest Speaker and as always, Jim was there with a lot of helpful information for us all.

In the play for the Midwest Wisconsin Trophy, Midwest was the winner for, we believe for the sixth consecutive year.

As usual, the men from Illinois and Wisconsin had a wonderful time together and we will be looking forward to our meeting next fall which will be held in Wisconsin.

THE OCTOBER MEETING

Our October meeting will be held at Medinah Country Club on Monday, October 7. Jerry Dearie will be our host. This will be the occasion for our Annual Fall Tournament. Tournament Chairman Dave Mastroleo has been busy accumulating a fine assortment of golf prizes and you will not want to miss being on hand to get yours. Jerry has been doing a lot of work on crabgrass control on his courses and it will be interesting to walk over his turf and see his results. As far as we know, there will be no speaker that evening, but if you have any questions, we are sure you will be given an opportunity to ask them.

PROBLEMS OF TURFGRASS MANAGEMENT CREATED BY EXCESSIVE RAINFALL

Dr. J. R. Watson, Jr.

The annual distribution of rainfall plays a major role in turfgrass care and management. The ideal situation with regard to annual rainfall would be periodic rains of a gentle soaking nature. Seldom, if ever, does Mother Nature cooperate to this extent. The average rainfall for a given area may remain more or less constant, but the distribution as well as the intensity varies from year to year, and particularly from season to season. It is the seasonal variation in intensity and distribution that creates problems for the Golf Course Superintendent. He must continually adjust his management practices to fit the prevailing weather conditions. The techniques employed to counteract the adversities of weather, whether they be drought or excessive rainfall, will to a large extent influence the quality of golf course turfgrass. There will be certain conditions brought on by adverse weather over which the Superintendent will have no control; there will be others which would create special problems, providing adequate materials, equipment and facilities were available. In many instances, however, the Superintendent will be able to counteract the adversities and prevent serious damage to his course. Careful planning and programming based on the facilities available to him, as well as a knowledge of the special features and conditions on the course, will enable the Golf Course Superintendent to produce satisfactory turfgrass in spite of adverse weather conditions.

Excessive rainfall may be classified into two categories: (1) frequent rains, mostly of low to medium intensity; and (2) floods, whether arising from prolonged rainfall or from heavy intense rains of relative short duration. For convenience, the problems associated with these two conditions may be discussed from the standpoint, of the effect they have on (1) Soil; (2) Growth.

Soil. The most obvious condition created by excess rainfall is that associated with drainage—both surface and internal. Surface drainage is the most rapid and effective means of removing excess water. When the soil is saturated from continuous rainfall and the topography is such that water does not move off rapidly, then the excess water will accumulate in the low areas. If the water remains "ponded" for too long a period, turfgrass will be destroyed. The length of time water may remain ponded without killing the grass is a function of the temperature and the species of grass. High temperatures will cause severe damage in a very short period of time, whereas if the temperatures are cool the grass will survive for a longer period. *Poa Annua* appears to be quite susceptible to damage from ponded water, while bentgrass is more tolerant.

Surface runoff may cause washouts and severe erosion, especially on newly seeded areas or on steep slopes with thin cover. Floods, particularly along rivers and streams, often leave heavy deposits of silt which may destroy the turf and leave layers that would create future problems. Heavy silt deposits often must be removed in order to restore the flooded area for play.

Heavy slowly permeable soils, when subjected to frequent and prolonged rainfall, become saturated and may remain at or near this level of soil moisture for extended periods. Under such conditions there will be a deficiency of oxygen and a build-up of reduced compounds which are toxic to turfgrass.

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.