

Insect and Disease Controls Feature Iowa Short Course

By H. L. LANTZ

One hundred twenty-five turf men from seven states attended the Greenkeepers Short Course at Iowa State College, March 8 and 9 at a time when the midwest was blanketed with snow. Interest in the discussions was excellent as was evidenced by the questions and discussions which followed the subject matter presentations.

Dr. W. E. Loomis, of Iowa State College, opened the program. He showed that it requires an enormous amount of water to build a pound of dry plant material. Dr. Geo. M. Browning explained the behavior of water in relation to the different soil types. Dr. O. J. Noer followed with a sound discussion of water management on the golf course. Said Noer, "1947 was one of the worst seasons for turf since 1920. The early part of the season was too wet, shallow rooting resulted and then came a long period of hot, dry weather."

Compaction of soils on fairways and greens is a subject that is getting considerable attention. Drs. Musser and Noer described some of the new machines now available that do a good job of soil aeration of turf areas. They reported excellent results where these soil aeration machines have been used in tests made in the East.

Mosquito and Fly Control

Dr. H. H. Knight gave a very interesting account of how the City of Ames got rid of mosquitoes and flies. If his suggested methods of control are followed, flies and mosquitoes will no longer plague golfers, swimmers, picnickers, and the kitchen. For the golf course, airplane distribution of a 5 percent dust of DDT applied at the rate of one-fifth pound per acre of actual DDT is sufficient if applied when the mosquito population reaches a peak. A hand duster can also be used very effectively in small areas of the course. Fly control at the club house is comparatively easy and simple—just paint the screens with a 5 percent oil solution and spray the garbage pails and dumps. One application on the screens per season is usually sufficient.

Drs. Musser and Noer did a swell job of pinch hitting for Dr. Fred Grau, dir. USGA Green Section. Dr. Musser explained that better grasses for turf is the objective of a great deal of breeding and selection work. An attempt is being made to isolate strains of Bermuda grass which are better suited to fairways and greens. Zoysia is an interesting grass, but strains are needed which will produce an abundance of seed. Such strains are not now available. One of

the new and very promising fescues is the Alta fescue which was developed in Oregon. Extensive testing programs are getting under way with Alta. Blue grass strains now under test are not yet ready for general distribution. In bent grass, Musser reported that the vegetative propagated strains were the most popular in the East. Later on there may be a possibility that certain strains or mixtures of strains can be developed that will produce seed that can be used satisfactorily on greens.

Surface and Under Drainage for Greens

There is at present a great deal of interest in building new golf courses and in rebuilding old greens that have failed for one reason or another. Robert Bruce Harris, golf course architect of Chicago, explained many interesting details that need to be considered in building a green. Adequate under drainage and surface drainage should be built into the green in order to avoid trouble later on. An 8" to 12" layer of coarse gravel with around 8" of a good soil mixture placed on top will provide the base for a good green. Tile located in the gravel may in some cases be necessary to drain out surplus water. Harris recommended that no slope on the surface exceed one foot in 10; leave the sharp undulations out of the surface of the green, and have that surface so graded that 75 percent of the area is suited to cup placement.

Maintaining Good Greens

The ambition of every golf course is to have greens in top playing condition all season long and of course when the greenkeeper can do that, it always helps out with the bread and butter home problems. O. J. Noer outlined a practical approach to how good greens can be maintained. Noer explained the acidity problem that should be understood. If the pH is 4.5 or thereabouts an application of 30 to 50 pounds of finely ground dolomite limestone per thousand square feet will raise the pH. Repeated applications of lime should be made to get a pH of 6 or 6.5. When grass clippings are removed from the green, nitrogen, phosphorus, and potash are removed from the green. Each thousand square feet of green produces about 100 pounds of dry material in a season which consists of approximately 5 percent N, 2 percent P₂O₅ and 4 percent K₂O. Bent grass has a very shallow root system. Therefore, it is necessary to supply these essential elements in sufficient quantity to supply what is needed by

the grass and take care of plant food losses due to leaching. Phosphorus and potash fertilizers are now in short supply and hard to find. Many greenkeepers put on a 3-12-12 in the spring and in the fall, at the rate of 20 to 25 pounds per one thousand square feet each application. A 0-9-18 fertilizer is preferred but that formulation is not available. Once a month during the spring and summer, Milorganite applied at the rate of 20 pounds per thousand square feet will supply the equivalent of 1.2 pounds of N. each application. That amount of N. is about right, but this, of course, will vary with local conditions. That, in a nutshell, is what Noer told the group about fertilizers. He added that anyone who expects to purchase phosphorus and potash will have to move fast.

Controlling Dollarspot

Diseases and their control were discussed by Dr. Geo. McNew, new head of the Botany Department at I.S.C. Before coming to his new position, Dr. McNew had had 7 years experience with new fungicides. His discussion opened up the whole field of disease control as it relates to the golf course. He has watched with interest the development of the new cadmium complexes and reported excellent results in the East with cadmium complexes in controlling dollarspot. H. L. Lantz found a similar result in tests at the turf garden at Ames in 1947, but it was found that brownpatch was not controlled. It now appears that in the cadmium compounds we have a very superior chemical for dollarspot control in the spring and in the fall. The standard chemicals will still be needed to take care of brownpatch during the summer months. Further work with cadmium compounds will be undertaken this year in order to get confirmation or otherwise of the 1947 results.

Monday evening 95 sat down to the annual banquet. Bud Connell, Indian Creek Country Club, Marion, Iowa, was toastmaster. Ted Adams who has served as Secretary-Treasurer of the Iowa Greenkeepers Association who had announced that he had taken a new position at Lebanon, Missouri, was given a good solid cash gift by the association to show its appreciation for his fine service. We hate to lose Ted, but he has the best wishes of everyone for a happy and successful experience in his new work.

Donation for Food Packages

Then followed two thrilling talks by Bill Adams and Mike Shearman, our two genial Scotchmen from Sioux City. They and their good wives visited their home folks during the early winter. Their vivid description of the cold, the hunger, and hardships endured by the people, of the uncomplaining and optimistic attitudes of these people—words cannot describe the

emotions of those of us who listened. The reaction at the close of Mike's talk was touched off by Art Hall of Bethel, Kansas, who got up and said, "I've never been so touched by anything that I've known or heard about conditions abroad." Art walked up to the speakers table and planked down three good sized bills and remarked that he would like to see a contribution from the greenkeepers to provide food packages for our friends in Great Britain. The response was immediate and we counted \$158.00 which will be used for food packages for our friends across the water.

Herb Musser then showed 3 reels of color movies taken last summer in Pennsylvania. The pictures showed some interesting golf course layouts, and new ideas in maintenance practices. These films indicate the educational possibilities for the use of movies in teaching fine turf management.

USGA First Junior Championship at U. of Mich., Aug. 11-14

The University of Michigan Golf Course at Ann Arbor, scene of the 1947 National collegiate and sectional collegiate tournaments, will be the scene of the first Junior Amateur championship of the USGA. Wednesday through Saturday, August 11-14, have been fixed as the championship dates.

The competition will be open to amateur golfers who will not have reached their 18th birthday by August 14, the last day of the tournament. The entrants need not be members of USGA member clubs.

The field for the Junior championship proper will be determined by sectional qualifying rounds, as is done for other USGA events. The Junior championship sectional rounds will be at 18 holes stroke play, at various locations which will be specified later by the USGA Championship committee, Richard S. Tufts, Pinehurst, N.C., chmn.

The sectional qualifying rounds will be held in the period from Monday, July 26 to Friday, July 30, and the exact date for each Section will be fixed by the local officials in charge. A total of 128 players will qualify in the Sectional Rounds for the Championship proper. At the University of Michigan Course they will engage in an all-match-play Championship with every round at 18 holes, on the following schedule:

Wednesday, August 11—first round.

Thursday, August 12—second and third rounds.

Friday, August 13—fourth and fifth rounds.

Saturday, August 14—semi-finals and final rounds.