

UNITED STATES GOLF ASSOCIATION GREEN SECTION

Mid-Continent Turfletter

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PREVENTIVE CONTROL OF DISEASES

Is your disease control program based upon regular application of fungicides for the prevention of diseases, or do you try to treat them after they appear? There are some arguments for both methods but the observation of results obtained by many of the superintendents in this country leads us to believe that it is better to carry out a preventive disease control program.

While disease producing fungi do not always behave according to the expected pattern we can anticipate within certain limits the appearance of the various diseases. The advent of the new broad spectrum fungicides, which will control several of the common turf diseases, makes a preventive control program more feasible than it has been in the past.

There is also the matter of having some diseases present that are normally weak pathogens but which produce some injury and which sometimes cause putting greens to exhibit a poor color. A disease control program aimed at curing diseases would not normally take into consideration these weak pathogens which do not produce spectacular symptoms. A preventive control program does a great deal to keep such weak pathogens in check, and improved color of turf as well as improved vigor are quite often apparent.

CENTRAL PLAINS FIELD DAY

The Central Plains Turf Foundation members will meet for their annual summer Field Day at Boys Town, Nebraska on June 10 at 8:30 A. M. The theme of this year's Field Day will be "Planting New and Renovating Old Turfgrass Areas."

OTHER MEETINGS TO PLAN FOR

The St. Louis District Golf Association Field Day will be held on September 10. Registration will be at Links Nursery on Conway Road, Clayton, Missouri.

The Midwest Regional Turf Foundation Field Days, to be held at Purdue University on September 16-17, will be divided between the groups from the northern portion of the Midwest Region and those from the Southern portion. You are welcome to attend on either one or both days, according to Dr. Wm. H. Daniel.

HOW SERIOUS ARE NEMATODES?

There seems to be mounting evidence that nematodes may be damaging turfgrass even in the northern sections of the United States. These pests were once thought to be pretty much confined to the southern part of the country, but a year ago Emil Picha, of the Oak Ridge Country Club, Hopkins, Minnesota, applied a nemacide to half of one of his putting greens. During a recent Regional Turf Service visit by agronomists of the Mid-Continent Region, the treated half was sufficiently different from the untreated half to be noticeable. Samples from other greens in the Minnesota area were found to contain numerous parasitic species of nematodes. At this juncture, it is not possible to ascertain the amount of damage that may be attributed to nematodes, but the presence of large numbers of parasitic types would certainly indicate that these pests may be quite important.

CRABGRASS

It is not likely that you will forget that crabgrass is already with us in many parts of the country, and will soon make its appearance in the cooler regions. Phenyl mercury acetate compounds are still the best control for young crabgrass in putting greens. Try to get treatment on at the manufacturer's directions before the crabgrass progresses to the two leaf stage. Applications a week or ten days apart will be necessary for control.

On larger areas than putting greens where crabgrass is present, and where it has progressed beyond the two leaf stage, disodium methyl arsonate appears to be one of the most effective controls. This material exhibits a rather high degree of selectivity for crabgrass in turf.

LIQUID FERTILIZERS

Liquid fertilizers are coming to be used by more golf course superintendents, particularly for the fertilizing of greens during the summer months. Liquid fertilizers lend themselves very well to such practice because they can be added in small quantities to fungicide sprays and applied at the same time. It may be well to point out that many of the liquid fertilizer manufacturers tend to make rather entravagant claims for their material. These fertilizer materials do an excellent job but usually one gets growth stimulation in proportion to the amount of fertilizer elements included in the formulation. Normally, liquid fertilizers are labeled as to the plant food contained, just as are conventional fertilizers. In other words, if your liquid fertilizer is a 10-10-10 formulation, ten pounds of it will be required to furnish one pound of nitrogen.

Some of the liquid fertilizers presently compare favorably in price with the conventional fertilizers; few of them, however, are cheaper. It is well to figure out the plant food content that one is deriving from liquid fertilizers and compare costs on this basis rather than on the claims of the manufacturer, who may insist that you use less of the liquid fertilizer on the same area.

IRRIGATION

The April '57 issue of CALIFORNIA AGRICULTURE was devoted almost exclusively to matters relating to irrigation. It is well worth your reading because much of the information can be applied to turf. The following statements are extracted from an article entitled "Water Quality" by L. D. Doneen and D. W. Henderson.

The composition of well waters may be variable even within a short distance. Wells of good quality water - low in total salts - may be a mile or two away from a well containing poor quality water.

Certain salts in irrigation water - lime salts and gypsum - do not contribute to the salination of a soil. They have a limited solubility and will precipitate upon concentration of the soil solution or when the soil dries. Therefore, they do not accumulate as soil salines. The remaining soluble salts have been termed the effective salinity of an irrigation water. These soluble salts are calcium chloride, magnesium sulfate and chloride, and all the salts of sodium - bicarbonate, chloride and sulfate.

The annual rainfall is a very important consideration in judging the suitability of an irrigation water. In areas of high rainfall such as the Sacramento Valley where the soil is wet to 6' or more in depth - below the depth of rooting of the crop grown - the salinity of an irrigation water could be relatively high due to its natural removal.

The type and condition of the soil determine to some extent the hazards of salt accumulation from salines in the irrigation water. On open and well drained soils where deep percolation of water is easily accomplished the effective salinity can be much higher than on poorly drained soil where there is a high water table. Many soil conditions - stratified soils, clay lenses, some clay and adobe soils, dense or compact subsoils, heavy clay subsoils, may seriously reduce deep percolation of the irrigation water in a reasonable time. These soil conditions may prevent sufficient leaching to remove the salines from an irrigation water having an appreciable amount of salts.

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