

AQUATIC NUISANCE CONTROL

By R. A. Brown

Algae and aquatic weed problems of golf course ponds and water hazards can be controlled effectively and economically. Atlas "A" or liquid sodium arsenite is the best known aquatic weed killer on the market. Depending on the density of the problem, type of nuisance, and the time of treatment: a pond can be cleared up by using between 3 to 10 parts per million of arsenic trioxide. The phrase 10 parts per million means applying 10 parts of arsenic trioxide for every million parts of water. In other words, you would apply 10 lbs. of arsenic trioxide (AS203) or 2½ gals. of Atlas "A", (since there is 4 lbs. of arsenic trioxide in a gallon of Atlas "A") for every 1,000,000 lbs. of water or 120,000 gals. of water.

If the pond has a bad weed problem and is congested from shore to shore, it is wise to divide the treatments into thirds or quarters, depending on the size of the pond. Allow one week in between treating each section. The reason for this is to prevent the suffocation of the fish. Dying vegetation absorbs oxygen. All too often fish kills have resulted because lack of oxygen and the blame immediately was put upon the chemical. If the application is made according to directions, there need be no fear of losing any fish.

Water from treated ponds should be left undisturbed for at least three days. After this waiting period the water may be used for anything that it was previously used for without fear of damaging fair ways or poisoning animals.

A properly treated pond will clear up in 3 to 10 days and will remain free from vegetation for the rest of the season. Depending on the conditions, another treatment will usually be needed the following year, but at a far less percentage.

For special algae problems two new products are available called Delrad and Phygon XL. These products are non-poisonous and control the species of algae that sodium arsenite does not.

A weed free pond is a credit to any course and a happy home for fish.

NOTICE

The Executive Board announces that after next meeting (May 21) all delinquent members will be dropped from membership.

We note with interest the initial issue of the Mid-Continent Turfletter of the United States Golf Association Green Section. Dr. Marvin Ferguson is the Mid-Continent Director and National Research Coordinator and James L. Holmes is Mid-Western Agronomist. We wish to express our sincere appreciation to the United States Golf Association Green Section for the foundation of the Mid-Continent office and our best wishes for the success of Dr. Ferguson and Jim Holmes in their endeavor to be of assistance to the golf courses and the golf course superintendents of this area.

It was announced at our last meeting that Dr. William H. Daniel will be our speaker at the May meeting and that Dr. O. J. Noer will be our speaker at our June meeting at Deer Park.

FUNGUS COMPOUND MAY SPEED PLANT GROWTH

A rare and little-known substance — gibberellic acid — has caused some remarkable increases in plant-height growth in laboratory tests.

USDA scientists P. C. Marth, W. V. Audia and J. W. Mitchell report that gibberellic acid may have possibilities for increasing the growth rate and yield of a wide variety of crop plants. Research is being expanded to find some practical uses for this plant-growth regulator.

TRIED ON VEGETABLES

In greenhouse studies, the researchers applied gibberellic acid as a lanolin paste mixture to the outside of young stems. Within 3 to 4 weeks, plants such as snapbean, soybean, peanut, pepper, eggplant, corn and barley had doubled or tripled in height. Weight (and solid matter) of soybean and snapbean plants was increased by 30 to 40 percent.

New growth of young forest trees such as willow oak, tulip poplar and maple was greatly increased following treatment, but only a slight increase in growth was noted with pine and white spruce.

In limited tests, direct application of the acid to several plant fruits — tomatoes, snapbeans and peppers — did not affect growth.

Other greenhouse tests showed that the chemical set back the flowering of certain ornamental and crop plants, but advanced flowering in others.

AS FOLIAR SPRAY

Researchers are now using a foliar spray to apply the acid. Extremely small amounts — as little as 1-millionth of an ounce of the acid in 1 ounce of water — will make plants grow taller.

Gibberellic acid is produced by the fungus *Gibberella* which causes a serious rice disease in Japan. The disease is characterized by excess plant growth, lodging and low yields. The chemical responsible for unusual growth in height was isolated from the fungus, and studies were begun to determine its effect on other plants.

Research is hampered by a shortage of the acid, because of a great demand by scientists and the fact that no method for large-scale production has been developed. Marth, Audia and Mitchell point out that gibberellic acid is only one of many growth regulating compounds being studied by the USDA.

— W. A. CLEARY

Probably the turf disease which in the past has been most dreaded by the Superintendent in the northern parts of the country and in Canada is Snow Mold. During recent years, we in the Chicago area, at least, have found how to prevent it on greens and tees by application of large doses of fungicides in the late fall and early winter. However, we still have to contend with it on Bent and *Poa Annua* fairways. So far this year, this has been the case. Greens and tees which were properly treated before snow fell this winter are, so far as we have been able to learn, clear of the disease. However, fairways and collars of greens not treated have considerable Pink Snow Mold and another type of Snow Mold, which, at least to some of us, looks a good deal like *Pythium*, being rather small in size with a black ring around it. It is most noticeable in sheltered spots where accumulations of snow and ice lasted the longest. Even some approaches which received a treatment show signs of the disease and we are lead to assume that accumulations of fungicides from the summer months may have a bearing on the presence or lack of the disease.