

UNITED STATES GOLF ASSOCIATION GREEN SECTION

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ALEXANDER M. RADKO
NORTHEASTERN DIRECTOR

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GRUB CONTROL

It is a fact that there are few plants that produce as extensive a root system as a healthy turf crop. A turf field is an inviting target and therefore it follows that well-meaning females of the insect world should seek out a turf area to "bombs-away." The mother instinct of the class "Insecta" is no different from that of the animal family, their prime concern being to provide for their young until maturity. Anyone who has witnessed the transition of the cute little insect eggs into ugly, well-fed grubs will unquestionably vouch for the insect mother's ability to select appropriate feeding grounds. The offsprings are well provided for until they reach maturity, ravenously feeding on grass roots with no apparent regard for the damage they do. Theirs is but a one track mind, destruction is their goal, and plant life is their prey.

Fortunately there are but a few insects which are troublesome in the Northeastern turf picture and this article deals only with those that pass through the root-feeding grub stage as part of their life cycle. Among these are the Japanese beetle grub, the May or June beetle grub, and the Asiatic beetle grub. The Japanese beetle provided man with his most dramatic fight and did considerable damage in its early days of arrival in its new vegetal environment. It was many years before the scare was over and the beetle brought under control. Biological as well as chemical means were employed to reduce the Japanese beetle hazard and this pest has not been a major problem in many seasons.

This fall, however, an increase in grub activity has been noticed at some of the golf courses visited. This may be due primarily to two factors: first, the summer of 1955 was an ideal insect season; and secondly, the heavy rains which fell in the Northeast may have reduced the effectiveness of insecticides applied in past years. At the November meeting of the Connecticut Golf Course Superintendents Association, Dr. John C. Schread, Entomologist of the Connecticut Agricultural Experiment Station, stated that he had thought it would be a long time before the Japanese beetle population would be on the upgrade, and he didn't expect to see it too soon. He stated that he felt more Japanese beetle activity would be a reality in 1956. Therefore, if it has been some time since insecticide was last applied to your golf course, it would be advisable to give some serious thought about re-application before late spring of 1956.

Of the insecticides commonly used these past several years chlordane has been most popular with Superintendents. Its quick killing action caught the

fancy of Superintendents. Some of the comparatively newer chemicals are faster acting than chlordane but their lasting characteristics are not as yet known. These products include Dieldrin, Heptechlor, Aldrin, Lindane, Toxaphene, and others. The newer insecticides are more powerful than chlordane, DDT, lead arsenate and other old stand-bys. The trend is toward reducing the pounds per acre required, thus lessening the bulk and handling required. Although the lasting qualities of even the commonly used insecticides have not fully been determined, it is felt that one treatment of chlordane used at the rate of 10 pounds technical (100%) chlordane to the acre gives protection against annual grub broods for about six years. One treatment of DDT at the rate of 25 pounds to the acre gives protection for about nine years. One treatment of lead arsenate at the rate of 435 pounds to the acre gives protection for about four years. Chlordane acts about twice as fast as DDT, and DDT acts about twice as fast as lead arsenate. Lately the cost of lead arsenate has been so high so as to be prohibitive for use on a large scale.

Both DDT and chlordane are used rather extensively for grub control; however, when a dense infestation is discovered, damage to turf can be stopped faster by an application of chlordane than by using DDT. These insecticides work best when grubs are active and feeding on the roots of grasses. They also work best at high temperatures and have little effect at temperatures below 50° F. Therefore, should treatment be applied in the winter months, no indication of control would be noticed until late the following spring.

Insect control is but one important phase of turf management. Root-feeding grubs can be very troublesome. If signs of grub activity were evident before the cold weather set in, keep alert to avert turf loss.

C-1 AND C-19 MONUMENT

At the Regional Group Meeting with the New England Greenkeepers Club held at Juniper Hills Golf Course, Northboro, Mass., those in attendance saw some very nice combination C-1 and C-19 bentgrass greens. Juniper Hills is a public course and receives heavy play, and these greens stood up very well this difficult season. Several years ago when Mr. Homer Darling, owner-greenkeeper, expanded from 9 to 18 holes, members of the Greenkeepers Club of New England banded together to help Homer plant these new greens. Today they stand as a monument of cooperation and comraderie such as is found in many Superintendents Associations. This is an example of but one of many such cooperative projects that emanate from Turf Associations.

This spirit of comraderie and cooperation extends to the meetings and conferences that are held during the year. Will you be there to participate and take advantage of the following important ones coming up?

TURF CONFERENCES

- January 17-18, 1956 - Mid-Atlantic Annual Turf Conference
Lord Baltimore Hotel, Baltimore, Md.
- February 5-10, 1956 - The 27th National Turfgrass Conference
and Show, Long Beach, California

February 13-17, 1956 - Rutgers Turf School
Rutgers University, New Brunswick, N. J.

February 20-23, 1956 - Penn State University Conference
State College, Pennsylvania

At each of the conferences listed many nationally known turf specialists will be present to discuss subjects of interest to all. Some new ideas, new techniques, new materials, and new equipment will undoubtedly be presented and it's a safe bet that each person in attendance will come away ready to apply new thoughts to the problems in the seasons ahead at their respective golf courses. True, grasses are dormant at this time, but the minds of progressive Superintendents work 13 months each year in the interest of turf for golf.

QUESTIONS AND ANSWERS

Question.--In preparing a C-1 (Arlington) and C-19 (Congressional) nursery for increase, is it best to plant separate nursery rows of each selection, or to mix them? (New Jersey)

Answer.--It is best to plant separate rows of each strain in nursery areas. The important thing to remember is that the bushel measure in planting the green is critical. The usual rate of stolonizing is 5 bushels of C-1 and 5 bushels of C-19 to each 1,000 square feet. If the balance favors the C-19 slightly it would not matter too much; however, if the balance favors C-1, the finished surface would not be as good. Therefore, to insure against imbalance of C-1, these stolons should be grown separately and measured accurately for planting.

Question.--Is it harmful to apply water to greens during the day on days when the sun is very hot? (Vermont)

Answer.--No, water could be applied to putting green turf at any time of the day. More important than the time of day is the amount of water that is applied at any one time. During the hot summer season of 1955 it was common practice to water the greens lightly (syringe) several times each day to prevent wilt. Many Superintendents water in the early morning and thereafter during the day as needed. This is good policy as morning watering washes the dew off the grasses, thus drying the grasses faster, and nullifying the nutrient medium (dew) on which fungi can feed. The primary danger is to apply too much water during hot sunny days, thus scalding the turf.

AN APPROPRIATE QUOTE

"It is easy to learn something about everything; but difficult to learn everything about anything." -- Emmons.

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