

as the fertilizer to prevent re-establishment of annual bluegrass where old parent plants are killed by endothal. If reseeding is necessary following endothal application, this can be accomplished one week later.

Research is continuing at the present time to determine the effects of materials such as Rubigan and growth regulants on annual bluegrass control and seedhead suppression. No doubt, these and other materials in the future will increase our alternatives for annual bluegrass control.

Summary

Lawn maintenance companies, golf course superintendents and other turfgrass managers have a number of effective tools for the control of annual bluegrass today. There is no substitute for good management programs that include judicious use and timing of aerification, dethatching, balance and intensity of fertilizers, traffic control and distribution and proper management of irrigation water. Misuse of these management tools will significantly reduce the effectiveness of preemergence herbicides and selective postemergence applications of endothal. Golf course superintendents embarking on annual bluegrass control programs should test these materials on minor areas to gain confidence and timing in their respective areas and maintain open lines of communications with committees to maintain their support and cooperation.

¹Presented at the 31st Annual Rocky Mountain Regional Turfgrass Conference, Fort Collins, CO, January 10-11, 1985.

²Extension Agronomist - Turfgrass Specialist, Western Washington Research and Extension Center (WSU), Puyallup, WA.

CDGA News

by Samuel C. Stout, CDGA Director

There's now a doctor that makes house calls - not only because it's impossible to bring the patient to him, but because this doctor wants to see the patient's home environment.

In case you haven't already guessed, the "patient" here is your valuable, well-groomed and normally healthy golf course. The "doctor" will be a newly created Golf Course Turfgrass Advisor, available at a moment's notice to inspect and prescribe treatment for your ailing golf course. This new service, available to all CDGA member clubs starting in 1985, is a joint venture with the University of Illinois, in association with the Midwest Association of Golf Course Superintendents. It is by no means designed to duplicate or substitute for the services currently offered by the USGA Turf Advisory Service.

What prompted this new service has been the incidence of several very serious maladies which have threatened the high quality of Chicago area golf courses during recent years. Most significant of these has been the Toronto (C-15) bentgrass decline on many of our finest greens. This has been quite traumatic for most superintendents but ultimate research has helped find a cause of the disease and a method of treatment. It is in these types of areas that the new Turfgrass Advisor can give aid. He will be an employee of the University of Illinois, fully trained in disease and insect control and an expert in turfgrass management practices. He will be based in the Chicago area and have available complete diagnostic and testing laboratory facilities. If you have a problem, he can come to your course, inspect it, and, if necessary, take samples back to his laboratory for testing and then immediately report his findings. Time, in more cases, is the essence in solving most turfgrass problems. In addition, this Advisor will be in touch with most

of the golf course superintendents in the area throughout the year, attend and participate in turfgrass-related meetings and act as liaison between the superintendents and the U. of I. It is jointly felt such a program is needed to maintain the high standards of our excellent golf courses.

This program has been carefully examined and approved by the CDGA and will be available at no charge to member clubs.

The Chicago District Golf Foundation is providing financial support for this project. A search is currently underway to fill the position of turfgrass specialist.

Credit: "The Score Card"
Spring 1985/CDGA

Earthworms - Friend or Foe

Roscoe Randall, Extension Entomologist
University of Illinois

Turf managers are not unanimous in their opinion of earthworms being a benefit to turf or being a pest or more correctly, a nuisance. Since 1970, it has been reported by researchers in Illinois, Michigan, and Ohio that earthworm activity can be reduced by pesticides. The chlorinated hydrocarbon insecticides, chlordane and dieldrin reduced earthworm activity for 4 months with a single application and longer with repeated applications over a 3 or 4 year period.

Thatch accumulation increased with the continued use of chlordane and dieldrin. This is understandable since the undecomposed debris or thatch layer is one of the favorite foods of earthworms especially in the early spring and late fall months when soil temperatures are cool. Since chlordane and dieldrin are no longer labeled for use on turfgrass areas, other pesticides have been tested as to their effect on earthworm activity. Insecticides such as diazinon, trichlorfon (Proxol, Dylox), and Dursban at labeled rates did not curtail earthworm activity. A report from Ohio in 1972 showed that Dyfonate, a similar product to diazinon but not labeled for turf, reduced earthworm activity for six weeks. There are some unofficial reports of earthworm reduction with some carbamates at high rates but not for any duration.

So where does this leave the situation? First, most insecticides used today for turf insect control have little or no effect on earthworm numbers or their activity of constructing casts in order to feed on dead grass or thatch. Second, what is effective must be residual and poisonous to the earthworms. Since chlordane and dieldrin are no longer labeled, the only alternative is the possibility of using an arsenical, a class of insecticides older than chlordane! Calcium arsenate and lead arsenate are two possibilities with the calcium form being most available.

From a personal standpoint, I am not suggesting or recommending the control of earthworms. But I also realize that their castings on greens and tees have been unusually numerous this spring as well as the past November and December. Reduction or elimination of earthworm activity in the fairways will undoubtedly increase thatch accumulation. If earthworms are your friend, rake down or level their castings and thank them for the thatch removal. If they are creating a serious problem of managing high quality greens and tees, control them with calcium arsenate, an inorganic insecticide. Do not attempt to reduce them with the organic insecticides labeled for turfgrass such as diazinon, Oftanol, Proxol, etc. They are at most temporarily effective.