



UNITED STATES GOLF ASSOCIATION GREEN SECTION

Southern Turfletter

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DISEASE IN THE TRANSITION PERIOD

The transition from winter greens of ryegrass, redtop, or bentgrass to summer greens of bermudagrass traditionally has been a period characterized by poor putting surfaces. This period exists between the time the winter grass dies out and the time the bermudagrass makes sufficiently active growth to provide a good putting surface.

It would be desirable to have bermudagrass growing actively before the cool season grass dies. Then the transition would be more gradual and less troublesome. It has been observed that bermudagrass does begin to make considerable growth while temperatures are sufficiently low to enable the cool-season grasses to thrive. It also has been observed that the early growth tissue of bermudagrass almost invariably is infected with leaf-spotting fungi, principally *Helminthosporium* species. These disease symptoms are usually masked because the bermudagrass forms an undergrowth in the turf which is dominated by the cool season species.

It is reasonable to believe that bermudagrass could be encouraged in early spring by applications of fungicides to control the leafspot diseases. Organic mercury materials are most effective against the type of organism which usually causes damage. Don't be misled into thinking that you have no disease problems because gross symptoms are not apparent. If you look closely, you are quite likely to find that bermudagrass is being damaged even when turf appears to be near perfect.

Another practice which appears to have merit in connection with the transition period is that of vertical mowing. This operation keeps cool-season grasses from tillering out and creating a "tufted" condition in the green and it removes some of the leaf growth that tends to shade the bermudagrass. This "opening up" of the turf will give the bermudagrass an opportunity to thicken up before the cool season component of the turf dies out.

REMEMBER NATIONAL GOLF DAY - SATURDAY, JUNE 6.

National Golf Fund donations to turfgrass research through the USGA have totaled \$62,700. Here's your chance to help.

Pre-emergence Control of Summer Weeds

Crabgrass and goosegrass (also known as silver crabgrass or crowfoot) have long been pests in all areas of golf courses. They are particularly unpopular on tees and greens. They germinate at about the same time that bermudagrass begins to grow, and any standard post-emergence treatment is detrimental to the bermuda.

Recently, tests at Rutgers University indicated that these pests can be controlled with a mild pre-emergence herbicide -- chlordane. This product has been widely used as an insecticide but ordinarily it is not used at the proper time nor at a heavy enough rate to act as an herbicide. The Rutgers experiments indicated that rates of 1-1/2 pounds of actual chlordane per 1000 square feet gave a high degree of control. Observational plots at the Fairyland Country Club, Chattanooga, Tennessee, showed the same results where almost complete control was obtained with 2 pounds per 1000 square feet.

In using the new granular formulations of chlordane, no special equipment is necessary. The 5% or 10% granulated material may be spread easily by a cyclone seeder or a small fertilizer distributor. Treating the greens of an 18 hole golf course with 100,000 square feet of putting green area will cost about \$350 plus labor. This treatment to be effective must be applied before the seed germinate.

There are other pre-emergence herbicides on the market which show great promise. It is suggested that before going "all out" with any of them, a small area should be used as a test to make sure there are no secondary effects such as burning the desired grass, stoppage of growth, etc.

Post-emergence Controls

The effectiveness of any weed control program is dependent upon a healthy, vigorous turfgrass to grow rapidly into an area left bare by a dead weed. For this reason, any crabgrass, goosegrass or dallisgrass control programs can be greatly assisted by a strong fertilization program before and after application of the herbicide.

Last year many golf courses in the Southeast used a DSMA plus 2,4-D spray program for the control of weedy grasses. The schedule most courses followed was a spray application of 4 pounds of actual DSMA and 1 pound of actual 2,4-D acid equivalent per acre in 50 to 100 gallons of water to which a wetting agent was added. A second application at the same rate was made again 7 days later. A third application of 2 - 3 pounds of DSMA alone was required in some areas. Spot spraying may be used as a follow-up operation but this often damages the bermudagrass more than the general spray.

Goosegrass in greens has been reduced by using a combination of chemical and mechanical treatments. Light applications of 2,4-D (1/4 to 1/2 ounce per 1000 square feet) makes the plants brittle. Poling, brushing or vertical mowing then breaks off the "fingers" of the plants and kills them. Tifgreen bermudagrass is more susceptible to damage by 2,4-D so the lighter rate should be used. Extreme care should be used so that the correct amount is applied. There is very little leeway for error when a material such as 2,4-D is being used on a putting green.

SOD WEBWORMS

In the southernmost parts of the nation sod webworm activity has been observed throughout the entire winter. Except in the case of very heavy infestation, the presence of sod webworms is difficult to detect so you may not have seen them.

There are many good insecticides that will control sod webworms if used properly. For the best control it is recommended that the insecticide be applied late in the day and that it be left on the foliage over night. The sod webworms will come up during the cool of the night and feed on the foliage. They return to their silk lined tunnel or burrow in the early hours of the morning to spend the daytime hours. These silken tunnels afford excellent protection for the webworm and most insecticides will not control the worms as well in their burrow as if they eat the toxicant. It is best to set the table for them on the foliage and let them eat and eliminate themselves. The next morning the insecticide may be washed off the foliage and watered in. Under certain climatic conditions the fumes and the chemical action of the insecticide will cause further death of the worms or cause them to leave their burrows.

The insecticides that are commonly used for the control of sod webworms are chlordane, dieldrin and aldrin. Numerous other insecticides are available that will provide excellent control. It would be advisable to use a spreader-sticker with the insecticide in order to get a better foliage coverage and to get a better kill of the sod webworms. If you already have a heavy infestation of sod webworms, then you should spray every eight to ten days for about five weeks in order to control successive broods.

The question of immunity of sod webworms to any given insecticide has been raised. No such immunity has been reported. The alternate use of more than one type of insecticide would provide protection against webworms despite any possible tendencies to acquire immunity.

Interesting Reading

The October, 1958 issue of Better Crops with Plant Food is devoted to the fertilization of forest trees. Much of the information is useful from the standpoint of managing the small wooded areas found on most golf courses. Better Crops is published by The American Potash Institute, 1102 Sixteenth St., N. W., Washington 6, D. C.

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