

## *RX for Overseeding Bermuda Greens*



*The first week in October is the time to overseed grass.*

by PALMER MAPLES, JR., Superintendent, The Standard Club, Atlanta, Ga.

**G**olf in the South is played the year around, and for those golf courses that have bermudagrass on the greens, overseeding with cool season grasses is necessary because the grass becomes dormant in winter. The best putting surface can be obtained by using selected chemicals to control a number of pests. This article will explain some of the chemicals I have found helpful in my overseeding program, their methods and time of application and reasons for their particular use.

*Poa annua* has been one of the major problems when overseeding greens. It comes as seed in other grasses, it comes from other parts of the golf course, and even from within the green itself if no control measures are used. The problem is the seedheads and clumpy growth in

the spring. Other than mechanical thinning and brushing, little could be done to control the *Poa annua* because available chemicals which would control *Poa annua* would also injure the desired overseeding grasses. Pre-emergence chemicals are now available, and if they are properly used, they can give control of *Poa* in overseeded greens. I have used Bensulide for the past six years. It has given excellent control of *Poa* in the greens through the winter and spring and it did not bother the desirable grasses.

My first use of Bensulide was on three greens at the Charlotte Country Club in 1966. These greens were very heavily infested with *Poa* and most difficult to putt in the spring. Smooth, dormant bermudagrass would have been a preferred putting surface and I felt there was

nothing to lose by using a chemical to control the *Poa annua*, even if the desired grasses were also affected. A period of 60 days before overseeding was selected as the time to apply the Bensulide. A liquid material having four pounds of actual chemical per gallon, at a rate of nine ounces of material per 1,000 square feet was applied. This material was put out through a spray Hawk using four to five gallons of water per 1,000 square feet. It was applied during the first week in August. The first week in October is selected as the time to overseed the grass because it gives the seedlings time to grow before the first killing frost.

The procedure is to aerify the greens the last week of July, topdress, fertilize, and then spray the Bensulide on the topdressing. This forms a seal of pre-emergence chemical that I do not disturb or break with any mechanical operations. The application of this chemical at these rates and over this time span has given me control of *Poa annua* in the overseeded greens and has not injured or killed any of the desired grasses or interfered with its germination.

Disease also must be controlled by chemicals, not only on overseeded greens but on all greens. A lot of new grass on overseeded greens is often lost to disease because the chemicals were not applied on the green. Applications must be made at the right time to do any good, especially during periods of high humidity.

In preparation for overseeding, I begin spraying the greens with a fungicide in August. An

application of capatan at eight ounces per 1,000 square feet is made and an application of daconil, cyrene, or other general fungicide is made. These chemicals will control some of the disease organisms that may be in the bermudagrass but not visible or active at this time of year. Other applications are made in September to rid the green of all disease that could hurt the new seedlings or the bermudagrass as it is slowing growth before going dormant.

Pythium is just as killing and fast spreading on seedlings as on other grasses, and it is a real problem in overseeding. Some treated seeds have been tried but they don't show a vast improvement over treating the seed at time of planting. Pythium control chemicals are kept on hand for immediate use if the disease breaks out after initial germination. I apply these chemicals the first two weeks after planting as a preventive spray, and as needed thereafter. Having used some broad spectrum fungicides in August and September, attention is placed on observing the seedlings as they emerge in conjunction with weather observations. Fungicides must be used on a preventive schedule during the first six weeks after planting. Rain should not interfere with the spray schedule for it is better to spray and have some control than no control at all.

Fertilizer and a combination of chemicals are a great help in establishing overseeded greens. The third week in September, an application of a 1-2-3 ratio fertilizer is made at a rate

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to supply 1½ to 2 pounds of potash and 1 to 1½ pounds of phosphorous per 1,000 square feet. The small amount of nitrogen will be useful in helping the plants use these other chemicals. A light topdressing of sterilized soil is applied to the greens at this time to give the seed a bed where they can start their new roots.

The continued growth of bermudagrass can be a problem in establishing the overseeded grass. Usually by October the night temperature is cool and the days are shorter so the bermudagrass does not grow as fast. At times with continued warm weather, bermudagrass does grow and compete with the new seedlings. In looking for a method to slow the bermudagrass, I tried MH-30, (maleic Hydrazide) a growth retardant. After the second year, I discarded it due to the lack of desired results. While the chemical would slow the bermudagrass and show some control of Poa seed heads, it did not give repeated, even control. Even spraying the green in two directions did not improve the performance of this chemical.

My next try was PMA. This material used at 3 to 4 ounces per 1,000 square feet worked fine. This amount of PMA would burn the bermudagrass and retard its growth for about 10 days to two weeks, giving the seedlings time to germinate. Another advantage of PMA was in clearing

up any disease organisms immediately before seeding. The application of PMA at 3-4 ounces is made on the Friday before the seed is planted the next Monday, or three days before planting.

All seeding is accomplished in one day during the first week of October. It is brushed and matted into the green, and watered that evening and night. This procedure helps wet the seed and get it settled into the grass before topdressing. If the overseeding is topdressed before watering, the topsoil will settle down into the grass and leave the seed floating on top of the grass and not in contact with the soil. When the dew dries the day after watering the seed, topdressing is used at a light rate over the seed, matted in and watering continued.

Three to five days after planting, a broad spectrum fungicide mixed with a pythium control fungicide is applied. Mowing starts in six to seven days at a height of 3/8 inch, and continues at this height for three weeks. This gives the plant time to grow its secondary roots and leaves, and establishes a healthy plant that will withstand the traffic, cold weather, and disease of the coming months.

The use of chemicals is but a part of a planned program that I use in establishing my overseeded greens each fall—but a most important part. A quick review will show that (1)



*A beautiful green is the result of a planned program.*

applications of fungicides in August and September will help rid the green of diseases; (2) after seeding, fungicide applications will help protect the new grass; (3) application of a preemergence chemical 60 days prior to overseeding will control further *Poa annua*; (4)

chemical fertilizers to help establish and support the growth of the grass applied before planting; and (5) the use of a growth retardant to slow the bermudagrass and allow the new seeds to germinate and grow. These procedures have worked for me at my golf course.

*The best putting surface can be obtained by using selected chemicals.*

