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GREEN SECTION

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OUR EXPERIENCE WITH THE GROWTH INHIBITOR MH-30

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One of the problems associated with the overseeding of bermudagrass greens in the South during the latter part of September is the excessive growth of bermudagrass that follows the verticutting, fertilization, overseeding, and topdressing of cool-season grasses. The warm weather that usually follows for three to four weeks after overseeding produces enough growth to reduce the chances for a good stand of ryegrass. In discussing this problem with Jim Latham, who was then U.S.G.A. agronomist for the Southeastern Section, he suggested that we try an experimental chemical, maleic hydrazide, that was being used on parkway grasses in the Northeastern Section to increase the time between mowings.

On October 3, 1959, an experimental plot was laid out on the 328 bermuda practice green and maleic hydrazide (MH-30) was applied at the rates of one-half ounce per 1000 square feet; three-fourth ounce per 1000 square feet; and one ounce per 1000 square feet. Three days after treatment 40 pounds of ryegrass per 1000 square feet were seeded. There were varying degrees of discoloration to the bermuda from the MH-30. However, the ryegrass seedlings, germinating in 5-7 days quickly gave the color necessary for a good appearance. All three rates were equally effective as growth inhibitors, and after 30 days the stand on the test plots was far superior to that on the remainder of the practice putting green. We were happy to observe the following spring that there were no losses of bermuda due to the MH-30 treatment.

During the fall of 1960, the experiment was extended to all 18 greens on our golf course. These greens at the time were Tiffine bermuda, and plans had been made to change over to Tifgreen (328) the following spring. We felt that the experiment was worth the try on all greens because we could cover up any damage with the conversion to Tifgreen (328). The rate of application was 3 pounds actual material (10 lbs. MH-30) per acre and was applied in 100 gallons of water. A 12-foot spray boom was used. We found this method of application unsatisfactory because some overlap occurred and the double application of chemical caused a definite burn. However, the overseeding

operation was again successful as there was a definite retarding of bermudagrass growth for the next three weeks. This was easily determined by the lack of clippings obtained. The following spring, there was again no loss of bermuda except on the streaked areas where the heavy application was inadvertently applied.

During the spring of 1961, with the able assistance of Mr. Jim Moncrief, who is now U.S.G.A. agronomist for our area, the experiment was extended as a useful cheap method to convert our greens from Tiffine bermuda to Tifgreen (328) bermuda. The method was as follows:

1. One half of the putting green was sprayed with MH-30 at the 3-pound per acre rate.

2. Five to 7 days later the green was sprayed with sodium arsenite with 4-6 pounds per acre rate.

3. Two days later the dead grass was removed with a sod cutter at approximately 3/4-inch thickness.

4. Stolons were applied to the smoothly cut area on original contours, topdressed, and kept continually moist until growth was established. The greens were back in play in 6-8 weeks.

Because 1961 was a continually wet season and because of time limitations, we felt it inadvisable to try the above conversion method on the remaining half of our greens.

On the second half of the greens, methyl bromide gas was used to destroy the old turf. While this method is quite a bit more expensive and troublesome, we completed planting our last green on August 10. We were pleased to note at this time, that both methods of conversion were successful and no problem existed this spring during change over from rye to bermuda; nor have we noted any failure from the maleic hydrazide treatment in comparison with the methyl bromide gas treatment.

It might be noted at this time that we did not use MH-30 on the new grass due to the fact that we want as much fall growth as possible to carry us through the first winter with the young Tifgreen. However, the experiment included older established Tifgreen bermuda on the practice putting green. The area covered during the fall of 1961 was 3500 square feet, and the rate was 2 ounces MH-30 per 1000 square feet. This rate definitely knocked the bermuda off-color for some 10 days to 2 weeks; but again, we had a far superior stand of ryegrass than we did on the rest of the greens that were not treated. This spring, we again had no difficulty or loss of grass during the transition period.

Inasmuch as we have had no adverse results from the use of MH-30 where the rates of application have been correctly followed, our plans are to extend its use to all of our greens this fall. We plan to use the 3-pound per acre rate

(approximately 1 1/4 ounces per 1000 square feet) in 200 gallons of water. The application will be made on September 15 with overseeding to follow on September 22. It is our hope that this will retard the growth of the bermuda long enough for us to establish the cool-season mixture. I would like to emphasize the fact that this has been amateur experimentation done on an 18-hole golf course in northeast Georgia, and the results I have given are the facts as we have analyzed them. I would definitely advise that each club follow the procedure of trying out small areas as we did before use on all greens.

DROUGHTY CONDITIONS

An early spring fertilization of a complete fertilizer has shown its merits during dry periods. The common bermuda fairways have held up better where fertilized. The new grasses (Tifway, Ormond, and others) have also shown superiority throughout the droughty season.

REMEMBER THESE DATES!

August 28-30.....Tenth Annual Turfgrass Management Conference, University of Florida, Gainesville, Florida

September 5.....1962 Turfgrass Field Day Virginia Polytechnic Institute, Blacksburg, Va.

September 6-7.....Alabama Turfgrass Conference Auburn University Auburn, Alabama

September 11.....Clemson Field Day Clemson Agricultural College Clemson, South Carolina

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USGA GREEN SECTION

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