Greens Fertilization in the Mid-Atlantic Area

by ALEX WATSON

For many years now, we have heard on every side the numerous suggestions and recommendations as to the amounts of nitrogen required for the quality growth of our Bentgrass greens. Suggested levels have ranged from 8 to 12 pounds of N per 1000 square feet per season. In this regard we have found that Bentgrasses do not require these levels to produce a good dense, vigorous, deep rooted greens turf. During periods of extremely high temperatures and humidity that we experience in our normal summer seasons Bentgrasses cannot endure when excess nitrogen is applied.

During the past 18 years we have experimented with many materials and varied programs with a great deal of winter fertilization rather than applying units during the summer season. Years ago we mixed sulphate of ammonia with topdressing and with 5 men equipped with buckets of this material, hand spread the mixture in two directions immediately followed by copious amounts of water. At different intervals over succeeding years we used commercial fertilizer mixtures like: 12-4-8, 10-6-4, 12-0-12 ad infinitum. Later we used proportioners applying a mixture of powdered urea-form, sulphate or potash, and hydrated lime. This (continued on page 4)
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program gave us good results; however, during the summer seasons we still experienced some turf problems even with reduced rates of application.

With the advent of controlled released granular fertilizers we have established what we feel is an excellent program. Since 1967 we have applied approximately 7.5 to 8 pounds of nitrogen per 1000 square feet per season and the overall results have been gratifying. We use O.M. Scotts fertilizers and start our program in January with the application of ½ lb. N/1000 square feet. Another 1 lb. is applied in February, March and May. From May until September we do not apply any fertilizer. In September we apply ¾ lb. of N/1000 square feet. If additional phosphorus is indicated by our soil tests we apply superphosphate to attain the proper level. PH in our greens has averaged about 7.1 since 1968. During the stress months we apply iron with either spray or granular application.

Once again the old adage comes to the fore, “To Each His Own”. Follow your own planned procedures on a test basis for nitrogen levels. Keep records of soil tests and PH levels preferably on a grass nursery. Your greens turf may not look like the “Emerald Isle” during the stress months but it will come through these periods in better condition.

In the transition zone we have many obstacles to overcome during the summer months and each season brings some old problems and some new. This is one that has plagued many of us for years and now there is “Light At The End Of The Rainbow”. The varied research programs that have been conducted at various universities along with newer materials have given us a yardstick to use in establishing sound management programs and enabled us to standardize fertilization schedules. We can now limit the many problems that cropped up each season with fertilizer misuse. We hope that you may be able to utilize some of the information in this paper to your advantage.