HANDS ON

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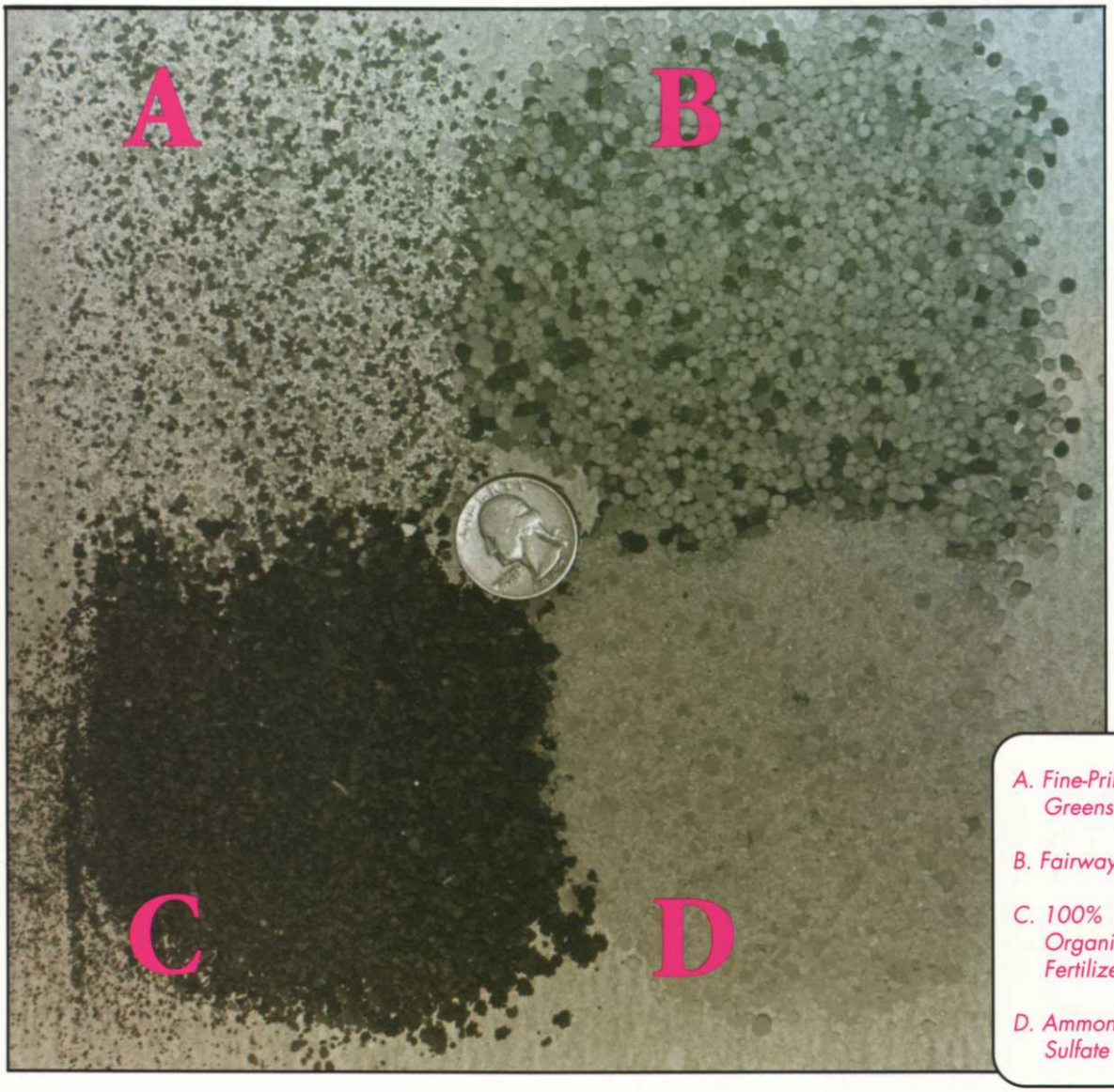
Fertilizer

Trends, blends, and programs



A. Fine-Prilled Greens Mix

B. Fairway Mix

C. 100% Organic Fertilizer

D. Ammonium Sulfate

Of all the concerns of turf management, South Florida superintendents are overwhelmingly most confi dent in their decision-making about fertilization. Yet, in compiling results of shop talk discussions, I found a wide disparity in fertilizer ratios, nutrient sources, application rates and frequencies.

While insecticides and fungicides are applied according to label rates, we are usually not as confident in the selection or the expected results as we are with fertilizer decisions. Call it ironic, a paradox, whatever, but these are the traits of our profession that keep us focused to the job at hand and make every new day a challenge.

FERTILIZER RATIOS

When the results were tabulated, an overall Nitrogen(N)-Phosphorus(P)-Potassium(K) ratio of (7-1-7) was found to be the average used in South Florida on greens and tees. Superintendents with newer USGA-type spec greens tend to use higher P and K ratios in their fertilizers, while those with specific phosphorus deficiencies are having additional phosphorus blended directly into their top-dressing mix. Supers with older, slower draining greens are using lower P ratios. Higher K analysis fertilizers are a definite trend.

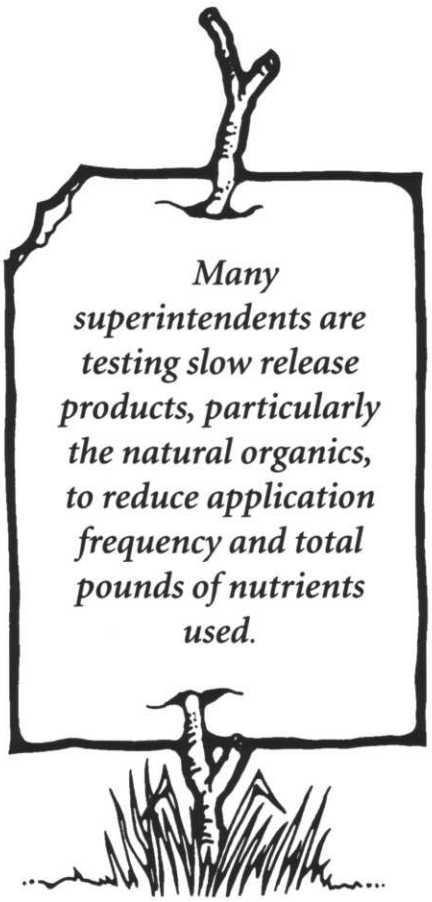
The average fairway ratio was found to be (5-1-5). When compared to the greens blends, most supers felt that less N and K are needed due to less leaching, higher heights of cut, and the return of grass clippings to the soil.

Mark Richard of **Greynolds Golf Course,** a public facility which plays over 100,000 rounds per year, likes to apply higher N and K ratio fertilizers during the winter when play is heavy to get as much growth as possible and to harden the turf off to wear and cold spells. In the summer, he will totally back off the nitrogen.

SOURCES OF NITROGEN

On both greens and fairway mixes, sulfur-coated urea was the leading source of nitrogen. SCU was found to be used by 30% of the superintendents on greens and by 55% on fairways. IBDU was preferred by 25% on greens and 20% on fairways respectively. A popular choice in fairway mixes by 20% of the supers was ammonium sulfate, due mainly to low prices and quick availability to the plant.

Although most superintendents on high pH soils using SCU or ammonium sulfate agreed that these sources failed to lower soil pH, they felt that using sulfur-coated or sulfate forms of nitrogen was effective in their overall programs. **Bill McKee** at **Oak Tree Country Club** says he uses the sulfate form of nutrients whenever possible on his pH 7.8 soils. He believes it allows him to get the fullest availability of all the elements, especially iron and manganese.



Nutrient leaching, particularly N and K is of major concern in selecting the source. While SCU and IBDU are the slow release leaders, natural organics and resin-coated fertilizers are quickly gaining popularity. Homogenous blends with slow-release coatings are seen by many to be the environmentally sound approach to nutrition for the future.

The importance placed in choosing a greens mix is evident when an overwhleming number of supers agreed that, "if budget was not an overriding factor in purchasing a fertilizer product for greens," they would not change their current source of N. In terms of pricing, quality, and results, they were already using what they felt was the best greens mix available.

APPLICATION METHODS

Walking rotary spreaders are used on greens by 70% of the supers in South Florida, while 25% have their fairway mixes applied by contract services. Citing quick, accurate, and trouble-free applications, superintendents are increasingly choosing contractors to apply bulk loads. Many courses close the first tee at noon and the operator follows the last group of golfers so as to not disturb play. In season, to avoid any loss of revenue, some courses have resorted to night applications.

APPLICATION RATES

Most superintendents apply their greens fertilizers at 1.0 pound of nitrogen biweekly. However, 35% apply at .75 pound of N rate on a slightly more frequent basis in order to avoid growth spurts. Nearly all superintendents indicated a 1.0 pound of N per month rate on tees. Fairways were evenly divided between 1.0 pound of N 4-6 times per year or 1.5 pounds of N 3-5 times per year. The average yearly rates of nitrogen were 21 pounds on greens, 12 pounds on tees and 6 pounds on fairways.

Many superintendents are testing slow release products, particularly the natural organics, to reduce application frequency and total pounds of nutrients used. USGA spec greens are causing many area superintedents to rethink their approach to greens fertilization. They are backing off from rigid application schedules of the past and are instead monitoring the color and clipping yields to determine when to fertilize — a much more objective approach. They believe they can reduce overall fertilizer usage, have more consistent color, reduce growth spurts, and adapt to changing conditions by using this approach.

SUMMARY

South Florida superintendents believe their goal of producing the best product for the dollar has always remained the same. It is the latest challenges of new fertilizer technology, a shift towards USGA spec greens and golfers demanding higher levels of quality which keeps them searching for that ideal program.