



# The Foliar Feeding Factor

MIKE KLEMM

**It's gaining popularity, but more education is needed, suppliers say**

By Larry Aylward, Editor

**I**f suppliers' sales are any indication, more superintendents are hungry to try foliar feeding as a fertility option.

Several companies — including Milliken Turf Products, Floratine Products, Grigg Brothers and Nutramax Laboratories — say their foliar business has been brisk in 2004. But that's not to say foliar feeding is a smash hit with superintendents. More of them need to be better educated about foliar feeding before they will consider it, suppliers agree.

Gary Grigg, president of Albion, Idaho-based Grigg Brothers, says the increase in business correlates with the increase of shorter-cut greens that run faster than fast on the Stimp-meter. He says superintendents are mowing greens so closely that the turf no longer has lengthy roots. Hence, some superintendents have learned that it makes more sense to nourish the turf's leaves, not roots, with the low rates and frequent applications that define foliar feeding.

Chris Byrd, the turf market manager at

Spartanburg, S.C.-based Milliken, says superintendents are "perfectly capable of growing green grass" without the use of foliars. But because the golf market is so competitive for players and because of increased turf stress, especially on low-cut greens, foliar feeding can make a welcomed difference.

Foliars provide other benefits, too. Superintendents have better control of how much nitrogen they're applying with foliar feeding, Byrd notes. Hence, they're not applying excess nitrogen, which could cause disease.

Another benefit, Grigg notes, is that agriculture studies in the past 50 years prove that foliar feeding also helps plants take in nutrition at the soil level. "Foliar feeding provides supplemental nutrition to help soil get a continuous stream of nutrients," he adds.

George Barger, director of the agricultural division for Nutramax Laboratories in Baltimore, says foliars can enhance the effects of some herbicides and fungicides.

Despite its benefits, Grigg says many vet-

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## Foliar Feeding

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eran superintendents still hesitate to try foliar feeding as a component of their programs.

"They're not used to it," he says. "They've been applying granulars their entire careers."

It's often difficult to get superintendents to believe that foliar feeding makes economical sense because it costs more. Barger admits the price on a case of Nutramax's product might cause sticker shock. But superintendents need to consider the product's low-use rates, he adds. Nutramax's amino acid-based products have rates of 1.25 ounces to 2 ounces per 1,000 square feet. "People

need to take a minute and realize it might only be going out at an ounce and a half per 1,000 square feet, which is about \$20 an acre," he says.

Bill Byrnes, president of Collierville, Tenn.-based Floratine Products, says many people are concerned about economics, but superintendents shouldn't focus only on the cost of

foliar products. "If you lose grass, then economics can really get nasty because you don't have play or income," he adds.

Paul Emling, superintendent of Arcadia Bluffs in Arcadia, Mich., says he has been using foliar at his course for about five years.

"Overall, the turf has responded well and my costs are slightly lower than a granular feeding program," Emling says. [Foliar feeding] also gives us basically unlimited control over color and, more importantly, clipping yield."

Suppliers must also convince superintendents that chelated and complexed macronutrients in foliar fertilizers are delivered effectively to the plant through the foliage. Some superintendents believe it's the iron in foliar products that's primarily responsible for greening up turf, Byrd says.

"Another fear is they're applying such a small amount of nutrient that it won't last long, and the turf will go off-color at an inopportune time," Byrd adds.

Application frequency is another concern that superintendents have with foliar feeding.

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It's obvious what part of this green didn't receive a foliar spray.

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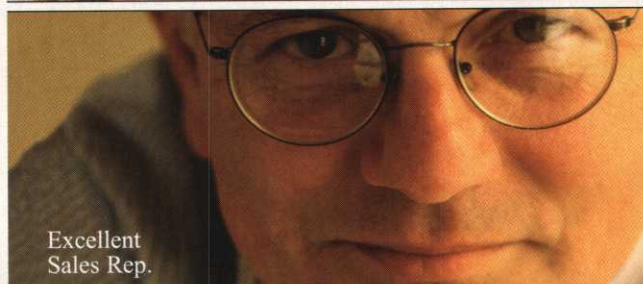
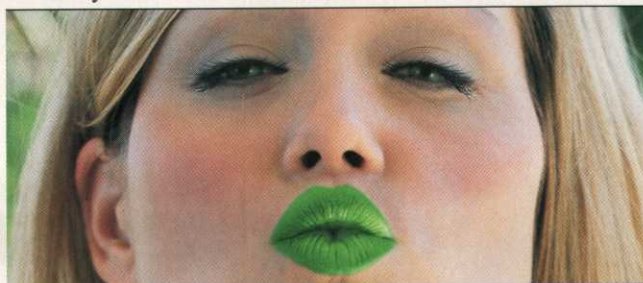
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**Suppliers agree  
that more  
university  
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needed.**

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Applications must be made frequently, which might mean weekly, and in small amounts. Some courses don't have the labor to make such applications.

"Some superintendents try to stretch out applications to every two weeks," Grigg says. "But it's better to go with the smaller rates weekly."

Grigg says his primary role in the company is to educate superintendents about foliar feeding. The job takes him on the road frequently to conduct seminars on foliar feeding for superintendents and others. Grigg tells superintendents and others that turf must manufacture carbohydrates to feed itself and gain a healthy root system. The turf does that through photosynthesis in its leaves.

"The problem is the more you cut the leaves back, the less factory there is to manufacture carbohydrates," Grigg says. "The less factory there is, the shorter the root system gets. The smaller the root system gets, the less nutrients get into the plant."

That's where foliar feeding comes in.

Barger believes foliar feeding can also help solve runoff problems. Emling says Arcadia Bluffs began using foliar to help eliminate leaching and runoff into the course's drainage system.

"Runoff is always a big problem," Barger says. "What's one of the benefits of foliar absorption? Lower rates. That means you don't have runoff and leaching problems."

Byrnes has high hopes for foliar feeding. "I dare say that within another five years it will become universal," he adds.

### More testing needed

But suppliers agree that more university research is needed. Byrd says Milliken is testing its foliar products in anthracnose trials to see how they offset the turf disease.

"There are a lot of diseases that require a fungicidal treatment," Byrd says. "But there are a lot of diseases just waiting for the grass to grow weak."

The key is to prove scientifically to superintendents that foliar feeding is beneficial. That's why more university research is needed, says Byrd, adding that he welcomes it. So does Grigg, who says his company wants to do its share of research.

"We have more testing going on this year than we've ever had," Grigg says. "Were at 10 universities. Although we're testing to get information for us, it can help the entire industry. The more independent university data we can generate, the better for all [suppliers]." ■

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