## FEATURE ARTICLE

# Another Insecticide Bites the Dust

#### Daniel A. Potter

This fall will mark the passing of another long-standing turf insecticide. Bayer Corporation has requested voluntary cancellation of Oftanol 2, and all products containing isofenphos, its active ingredient. Registered in 1983, Oftanol was among the mainstays for soil insect control on both home lawns and golf courses. However, sales of Oftanol have declined in recent years, especially since the registration of Merit and Mach 2 for grub control, and other new insecticides for mole crickets. When the EPA added more data requirements for re-registration of organophosphates under the 1996 Food Quality Protection Act, Bayer decided that these costs could not be recovered during the projected sales life of the product.

Although the federal registration of Oftanol 2 will be terminated this autumn, state registrations will remain active, and inventories of the product can be sold and used until the supply is exhausted. The loss of Oftanol continues the trend of cancellations of other organophosphate turf insecticides for similar reasons. Within just a few years, we've lost Crusade (fonophos), Mocap (ethoprop), Triumph (isazophos), diazinon for golf course use, and other products. Dylox and Turcam, a carbamate, are the only relatively fastacting soil insecticides still available for curative control of large grubs on golf courses.

Hopefully, new generations of advanced soil insecticides will be developed in time to fill the void. One such product that looks especially promising is thiomethoxam, a novel compound from Novartis. It combines the residual, preventive capabilities of Merit and Mach 2 with good activity against mid- to large-size grubs. Thiomethoxam may be on the market as early as next year. We currently are testing other novel, reduced-risk compounds for turf insect control.

### A Mutation Problem?

#### James B Beard

For years the appearance of off-type strains in both Tifdwarf and Tifgreen hybrid bermudagrass (*Cynodon dactylon* x *C. transvaalensis*) has been attributed by many to mutations. While it is true that these two cultivars have a higher tendency for mutations to occur than many bermudagrass cultivars, it is still a very rare occurrence.

When I arrived at Texas A&M University in 1975 there was a large experimental putting green, half of which was established to Tifdwarf and half to Tifgreen. It was at least 10 years old at that time and I subsequently continued to maintain it for another 22 years. The two hybrid bermudagrass cultivars were grown immediately adjacent to one another, without a bare alleyway separation. During the 32+ years, there were four different investigators in charge of the TAMU Turfgrass Research Field Plots, with a great diversity of experiments ranging from fertility practices to winter overseeding to pesticide studies being conducted on that green. In spite of this diversity of uses on this putting green over a period of 32+ years, the appearance of off-type bermudagrass strains never occurred in either hybrid bermudagrass cultivar!

Comments. These observations suggest that if one obtains uniform, true-to-type hybrid bermudagrass planting material and plants onto a site that is completely free of off-type bermudagrass sprigs, then the chance of offtype strain development is very low. In contrast, the offtype strain occurrence on many new putting greens is developing in less than 5 years and is quite extensive across the putting greens on a number of golf courses. In most cases this is probably the result of either (1) Contamination of the planting material with off-type, (Superior bermudagrass sprig producers walk their production fields weekly and immediately spot-kill any off-type plants that appear), or (2) Failure to properly eradicate any potential contaminates in the plantbed prior to establishment of the new bermudagrass cultivar. One should note that even repeat applications of glyphosate (Roundup Pro<sup>®</sup>) do not give eradication of bermudagrass. Rather it is important to properly prepare the site and treat with methyl bromide to minimize the chance of contamination from existing off-types.