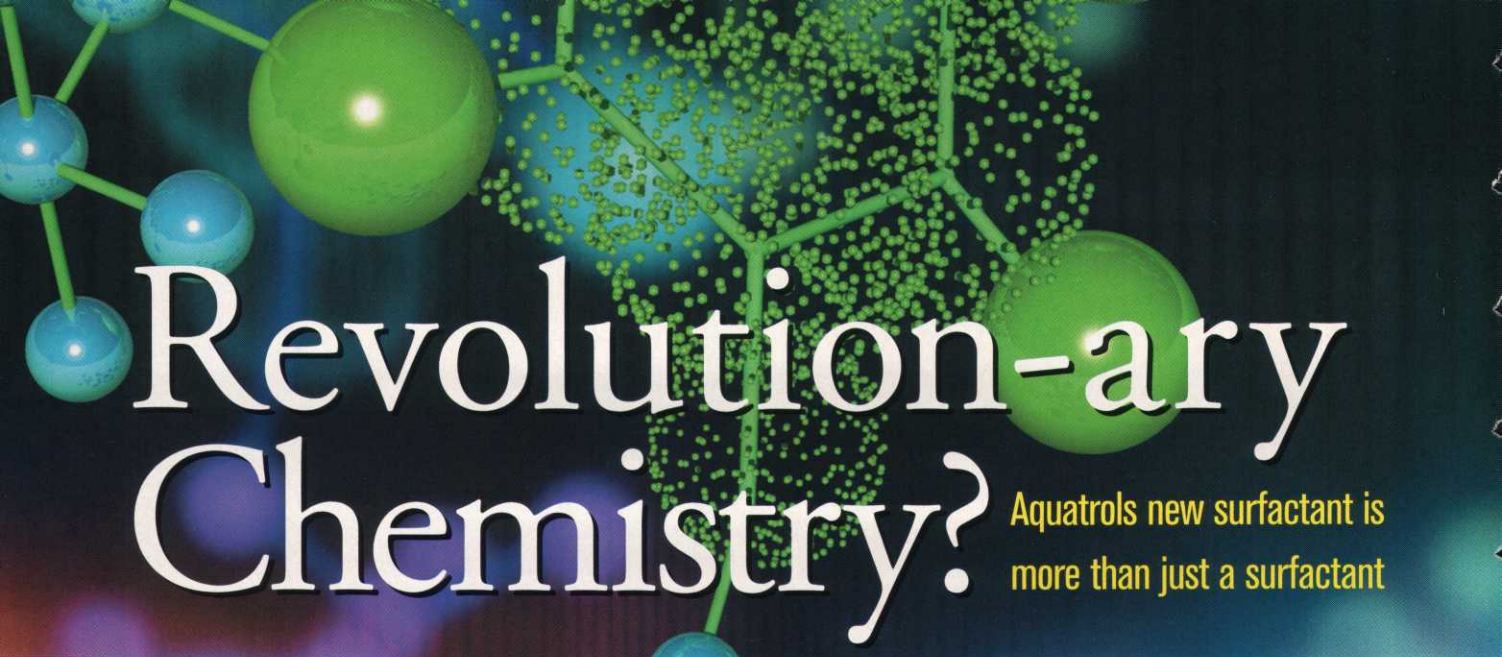




Revolution-ary Chemistry?

Aquatrols new surfactant is more than just a surfactant

BY ANTHONY PIOPPi, CONTRIBUTING EDITOR

Aquatrols has a new product, but before you groan and say, "Not another surfactant," hold on a second.

According to the company, the product, called Revolution, has surprised even them. Revolution's chemical structure (specifically the methyl cap) radically alters how the molecule behaves in the soil, making it more than just a surfactant.

"We're seeing things with this chemistry that have never been seen with a surfactant before," Aquatrols Marketing Manager Colleen Clifford says.

Four years of testing at a number of universities in the United States and elsewhere, as well as 72 field trials in the United States, Scotland, the Netherlands, England, Wales and Japan, has produced results in turf such as better production of nonstructural carbs, elevated antioxidant activity, and overall increased plant resilience against environmental and cultural stresses, Clifford says.

One of the field trials took place at Nawshatuc Country Club in Concord, Mass. It was there that superintendent Paul Miller discovered that Revolution when combined with BASF's new fungicide, Insignia, helped with his long-time problem of fairy ring. Miller surmises the ability of Revolution to increase the percentage of moisture absorbed by the plant, making it more resistant to the disease. "I think it has fungicidal qualities," Miller adds.

Miller used Revolution on two greens in 2003, and last year he used it on all 18 greens, plus his practice green. He says he saw a marked reduction in fairy ring.

The key to Revolution, according to company literature, is the way the chemical structure produces hydration sites that are interlocked across the particle surface. As a result, better movement of water allows for better accessibility by the plant.

The company said adding a methyl cap to the block copolymer changes the orientation of the molecule as it leaves the water phase, allowing it to act better with soil and organic matter in the root zone.

According to Miller, Revolution may also have benefits the company did not realize. For one, he says water is absorbed into the soil quickly and thoroughly. As a result, less irrigation is needed to keep turf healthy. And because Revolution does not need to be watered in immediately after application like other surfactants, superintendents can utilize rain to wash in the product.

"Environmentally, they hit a home run," Miller says of Aquatrols.

Secondly, Miller said Revolution is so effective in moving water into the soil profile that there is no dew on his greens for up to a week after application. He points out that frost delays can cost courses thousands of dollars during the peak season of play in areas such as Myrtle Beach, S.C., and Hilton Head, S.C. But the lack of dew, even for a week, would all but eliminate frost on greens and subsequent frost delays. ■

Wetting Agents for Water Management

Surfactants and wetting agents do more than just prevent localized dry spot (LDS). They can help with overall water management. These days, with a possible water crisis looming, that's a huge advantage.

Precision Laboratories says superintendents have found that its product Cascade, a wetting agent used to prevent LDS and correct hydrophobic soil conditions, has helped utilize their courses' water supplies more efficiently.

"I have noticed a huge savings in irrigation run time to keep the upper profile moisture level where I like it," says one Florida superintendent, according to Precision Laboratories. "With this in mind, nutrients, amino acids and other products will less likely leach through the root zone."

"Cascade has helped me cut my water usage on greens and cut hand-watering in half," another superintendent from Oklahoma says.

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