

# Got Hot Spots? Use Surfactants – Wisely

By Colleen Clifford

**D**roughts have impacted many areas throughout the United States and Canada. We hear about ground water being depleted, wells going dry and rainfall amounts being dangerously below average. Many areas are experiencing rising temperatures and increasing sun and wind.

How do prolonged dry weather patterns affect soils? Under “normal” conditions, sufficient rainfall occurs to keep soils from becoming nonwetttable. This residual moisture is enough to keep the organic coatings from drying out and becoming irreversibly hydrophobic. With the current drought conditions and water restrictions in place over the past year, however, soils are getting less water less regularly and are drying out more often. As a result of this lessening hydration pattern, soils are becoming increasingly water-repellent.

Critical water content or critical moisture content is the point at which a soil transitions from being wetttable to nonwetttable. When a soil reaches this

## Weeks *Continued from page 12*

Weeks said he expects the divestiture to occur by Thanksgiving. Reportedly, BASF AG is interested.

“In the meantime, Bayer will continue to make and market fipronil in all its forms,” Weeks said. “Clearly, there should be an uninterrupted supply to customers.”

Weeks says the consolidation of the two companies means more focus on research and development, which adds up to new products. He wouldn't say whether increased consolidation the past few years has helped or hurt the specialty chemical markets.

“In terms of customers, beauty is in the eye of the beholder,” he said. “However, I believe that what customers are looking for are products at reasonable prices and new technology to help them be more effective in their jobs.”

— Larry Aylward, Editor

point, hot spots or water-repellent regions appear and will not wet. Water runs off the surface and little, if any, will penetrate the soil profile. While these hot spots show clear signs of hydrophobicity (water repellency), the green areas around the hot spots may appear to be fine. Don't be fooled, however. These soils are also hydrophobic but have not yet hit the critical water content point. If not treated, they will quickly become hot spots.

Soil surfactants have gained acceptance in the last decade as a tool for reducing water use while still keeping turf and landscapes healthy. But, like most turf-related products, surfactants may call for different rates and/or application practices when extreme weather conditions prevail. The longer drought conditions persist, the more organic coatings accumulate on the soil particles, causing a greater shift to-

ward water-repellency. To combat this higher accumulation of hydrophobic material, higher rates or more frequent applications may be required.

When extreme water-repellent conditions are present, soil surfactant selection is critical. Not all surfactant types are formulated to address severe problems associated with water-repellency. Some are formulated to move water off the surface and into the soil. When dealing with season-long or longer-lasting surfactants, keep in mind that additional applications may be necessary under extremely dry conditions.

Use caution when applying soil surfactants at high, one-time rates during hot and dry conditions as some may have a tendency to burn.

*Clifford is a communication specialist for Cherry Hill, N.J.-based Aquatrols.*

## Quotable

**“I went from speaking to Tiger Woods to getting engaged 45 minutes later. It was pretty overwhelming.”**

— Craig Currier, superintendent of all Bethpage State Park golf courses, on proposing to his girlfriend shortly after Woods won the U.S. Open on the Black Course. (*GolfWorld*)

**“There's one thing that 21 years at the same facility gives you: increasingly short odds. Sooner or later, you're going to have that year that just stinks: the year of strange diseases, the year of dancing sugar plum fairies leaving their dastardly rings everywhere, the year of goosegrass and weird employees, the year of . . . well you get the picture.”**

— Mark Vaughn, certified superintendent of the Goodyear GC in Danville, Va., on that fateful year (*Virginia Turfgrass Journal*)