Wetting agents gaining in importance as

By Mark Leslie

Wetting agents — a little-used creature of the marketplace for two decades — are suddenly and unequivocally in the forefront of golf course maintenance as pressure mounts on superintendents to reduce use of water and chemicals.

"Everybody's making them now," said one superintendent in the Northeast, who is dabbling with extensive use of wetting agents now, but I think you'll see a lot on seasonal programs in the future." Very few people in our area have a wetting agent program now, but I think they'll see a lot on seasonal programs in the future.

Wetting agents are surfactants, meaning they increase the spreading and penetrating power of water by lowering surface tension.

Their benefits are many. Because they help water penetrate the ground surface and get to the root zone, they also:

- greatly enhance effectiveness of liquid pesticides or fertilizer being applied
- help prevent wilt and localized dry spots
- allow reductions in water and chemical use
- help reduce compaction and stop dew from forming for many days.

Mike Safel, a research technician working with Dr. Paul Rieke at Michigan State University on wetting agent research, said there are actually three classes of products — surfactants and adjuvants (which are formulated to be used with chemical applications) and wetting agents (which are developed more to improve soil moisture and to help water penetrate the ground).

"Because of the increased number of sand-based greens, which are prone to dry spots, we see more use of wetting agents. The majority of people are applying them just on greens. That's the main focus," Safel said.

Cheeck Irrigation First

U.S. Golf Association Green Section National Director Jim Snow forewarns superintendents: "Many times you use a wetting agent when you could solve the problem by fixing your irrigation system's coverage... That's more true in the North or East, where irrigation systems aren't as sophisticated or as finely tuned as they are in the West. In the West, where you don't have rain for months, you find out very quickly where your irrigation is poor. In the East you may never find that out. So when you do have a dry spell or a cutback in water, you think about treating with wetting agents.

"In the Northeast irrigation coverage is poor, relatively speaking. Yes, every area gets some water, but those areas get twice or three times as much as another spot. I've told a lot of clubs to check out their irrigation, and they've found out it was bad and they resolved the problem by changing the heads, or nozzles, or correcting pressure problems or line deficiencies."

Safel said management practices are critical to how well the product works. "If they overwater, the wetting agent benefits will be negated," he said.

Superintendent Tim Hiers of John's Island Club in Vero Beach, Fla., added that courses with good water quality may not need wetting agents at all. While soft water penetrates the ground surface well, he said hard water does not. Wetting agents "allow that water to cut right through."

Test Results

Safel said Michigan State's wetting agent field tests have been "very variable. Sometimes we'll get obvious results, sometimes not... We know they take off very quickly where your irrigation is poor. In the East you may never find that out. So when you do have a dry spell or a cutback in water, you think about treating with wetting agents."

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