

WETTING AGENT USE ON TURF

STOP
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Many claims are made for the benefits of the use of wetting agents on turf. Among these are rewetting of hydrophobic soils or prevention of the development of that condition; improved drainage, resulting in less compaction by traffic after irrigation or rainfall; more efficient water use by the plant; dew control; and physiologic responses by the plant. Our research in the past has centered on rewetting the hydrophobic soil condition and dew control. A hydrophobic soil (usually restricted to sandy soils) will actually repel water, causing it to run off the affected area. Localized dry spots then appear.

Wetting agents can be used preventatively on turf areas known to be susceptible to localized dry spots or curatively when the condition develops. Once the condition develops, higher rates of application of a given wetting agent are necessary to correct the problem. Core aeration will normally be helpful if done before wetting agent treatment. Be careful to prevent injury to the wilting grass when aerifying. We recommend watering the turf area, applying the appropriate rate of an effective wetting agent and water again to flush the wetting agent off the turf to prevent burn.

Wetting agents vary considerably in chemical composition and percentage of active ingredient. As a result they vary not only in their effects on soil and water, but also in susceptibility to adsorption, leaching, biodegradation rate, longevity of response, physiological effects on plants, and obviously in cost.

Current studies were initiated in August on a golf course fairway and at the Hancock Turfgrass Research Center. Wetting agent materials applied included LESCO Wet, Aqua Gro, Hydro Wet, Basic H and Naiad. Granular Aqua Gro was also applied. These treatments were applied to a Penncross creeping bentgrass green and watered in with .1 inch water. The treatments were applied to one section of the green which has received limited water during the year (60% of open pan evaporation), while another set was applied to an area which received 80% of open pan. Since application the water rate has been reduced further to induce localized dry spots.

A phytotoxicity study was also initiated in August. Treatments were not watered in for 24 hours to allow for maximum burn potential. When applied by watering first, treating, and watering again, the potential for phytotoxicity is dramatically reduced. One should use extreme caution when applying wetting agents under very hot conditions or when the turf is in extreme stress from moisture stress, traffic or cultivation.

When contemplating the use of a wetting agent, get as much information as you can about how it works and how the plant responds to it. It is wise to do some experimenting on your own if you have time and space. Then use the material carefully.