**Wetting Agents: Important Tools for Fighting Turf Disease & Drought**

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*What are wetting agents?*

Wetting agents are usually synthetically produced polymers that are designed to be applied to the soil. Sometimes they are referred to as surfactants. The molecules that comprise a wetting agent frequently have two sides to them: one side that likes water (hydrophilic) and another side that likes oils and fats (hydrophobic or lipophilic). Some wetting agents can be considered “natural” and may be considered organically appropriate.

*What do wetting agents do?*

Soils are full of microorganisms and plant roots. Often under high temperatures, these organisms will produce compounds in the soil that are hydrophobic (they resist water). When enough of this material builds up, a soil becomes hydrophobic and will not absorb water, causing plants to wilt. When a wetting agent is applied to the soil, the soil will again absorb water and plants usually recover from drought stress.

*Do all soils become hydrophobic?*

No, the type of soil, amount of organic matter and other factors influence whether a soil becomes hydrophobic. While the phenomenon usually occurs in the summer, it can be observed throughout the year.

*Is hydrophobicity the only reason to apply wetting agents?*

No, even those soils that do not become hydrophobic may benefit from wetting agent application. Different wetting agents have different types of activity. In addition to allowing soils to “wet”, they will often move water deeply into the profile and evenly distribute that water. This may actually reduce the amount of water required by plants, as less water will evaporate into the atmosphere. Wetting agents will also commonly increase seed germination rate and speed.

*How should wetting agents be used?*

Although wetting agents are not “pesticides” and may not fall under EPA registration, they will have use instructions on the label. Different labels will specify different requirements. Many wetting agents are specifically designed for commercial use, others should not be applied near water. Wetting agents usually require similar protective gear as pesticides and can be poisonous if ingested. Wetting agents are most useful in turf situations (when lightly watered into the soil) but may have other applications. It is also important to note that some wetting agents can actually burn and damage plants under certain conditions so care must always be taken with their use.

*What is the best wetting agent?*

There are literally dozens, if not hundreds, of different wetting agent products. While some may be very similar to each other, some may have very specialized uses or activity. There is no best wetting agent for every situation and often a degree of trial-and-error is required to determine which product will suit your particular needs.