

The risk is day-to-day and year-round...

It is important to recognize that drought stress is not limited to prolonged drought conditions. Even with regular irrigation, plants can enter drought stress as available moisture levels fluctuate. Plants that were watered one morning may be entering an early stage of drought stress later that day. Once a plant begins to enter drought stress, it is far more susceptible to pests and disease.

The answer is proper moisture management...

Because H3O Plus works around the clock to capture moisture that would otherwise be lost to evaporation, you can be assured that your plants have the moisture they need between watering cycles. This not only helps you to prevent overwatering, but it also gives you the confidence to cut back on the volume and frequency of irrigation, **conserving precious water resources without sacrificing your greenery in the process.**

The benefits of Proper Moisture Management:

- Minimize Drought Stress • Control or Eliminate Dry Spots
- Enhance Nutrient Uptake • Increase Seed Germination
- Optimize Pesticide Efficiency • Extended Flower Life
- Improve Transplant Survival • Lower Watering Expense



Drought stress affects all plants...

H3O Plus is effective on:

- Turf • Shrubs • Ornamentals • Trees • Bedding Plants
- Flowering Plants • Sports Fields • Vegetable Gardens
- Potted and Containerized Plants ...indoors and out, and much, much more!

H3O⁺

Root Zone Moisture Management **Plus 10% Surfactant**



For additional information or to purchase H3O Plus, please call us at 1-800-988-8257 or contact your local BioPro distributor:

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H3O⁺

Root Zone Moisture Management **Plus 10% Surfactant**



Cuts watering up to **50%**

- Minimizes Localized Dry Spots
- Increases Watering Efficiency
- Delays Wilting and Stress
- Increases Seed Germination
- Reduces Labor and Costs

With potentially millions of dollars in turf, landscaping and labor at risk, as well as your reputation, the dangers of drought are a persistent reality, and as more greencare professionals are finding out, drought stress is a year-round problem not simply tied to drier months of the year.

Applying more water is often not effective, and is even becoming illegal in many parts of the country as more homeowners and professionals alike are being served with steep fines for violating water ordinances.



An increased frequency and higher volume of water to compensate can lead to disease and rot, especially when an occasional rain shower saturates an aggressively irrigated area.

This cycle creates risk periods where plants drift between having too much water and then too little. More water is not the answer and watering cut-backs don't have to mean that your landscaping investments die.

Both gravity and evaporation are constantly working against you pulling moisture out of the reach of roots as it returns to the aquifer and atmosphere. These two forces combine to create the potential for total moisture loss in the soil matrix when rainfall is scarce. Left unchecked this damage can cause wilting, browning and loss of the leaves, flowers and other delicate plant structures. By the time these drought stresses become evident, much of the plant's internal processes have already begun to shut down as it enters into survival mode. It is during this time the plant becomes susceptible to opportunistic disease and pests.

Chronically dry soils can become hydrophobic or moisture-resistant. Attempting to hydrate soil in this condition is difficult as hydrophobic

soils tend to channel moisture away through voids in the soil matrix and poor absorption results. This moisture is then lost to gravity and offers little real benefit to plants, resulting in surface brown spots.

As drought conditions progress, roots stop growing as they encounter dry soil. Delicate root hairs begin to shrink, desiccate and die, leading to even more severe stresses and symptoms above the surface. Overwatering to compensate can lead to fungus, algae and rot which can be equally damaging.

H3O Plus from BioPro Technologies is an advanced, environmentally-sound chemistry which forms a thin persistent film on the root surfaces. Patented hygroscopic and humectant technologies attract available moisture, like tiny water magnets, giving plants an important ally in the year-round cycle of drought.

H3O Plus captures and retains water vapor coming in contact with the plant roots forming countless reservoirs that will prove vital to plant survival when moisture levels drop out of reach of the root zone. This helps to prolong a plant's

healthy internal processes and reduces or even eliminates drought stresses that lead to disease and pests.

Persisting through multiple waterings, the cycle of vapor capture and droplet formation repeats, ensuring that your turf and plants have a vital and uninterrupted supply of moisture. The film also travels with roots as they grow. As plants respond to changing moisture levels, they will benefit from H3O Plus' lasting effects.

Soil treated with H3O Plus uses newly available water more effectively than hydrophobic soils. Instead of channeling it away, the soil permits distribution of available water, suspending it in the soil matrix and making it available to your plants' roots.



Drought stress and browning before



After treatment with H3O Plus



Gravity and evaporation are constantly at work against you removing moisture from the soil



Dry soil becomes hydrophobic channeling water away rather than absorbing it into the soil



Roots stop growing as they hit dry soil and delicate root hairs begin to shrink, desiccate and die



H3O Plus film can persist through multiple irrigation cycles lasting up to three full months



H3O Plus constantly captures and retains water vapor forming microscopic reservoirs



Treated soils readily accept new moisture making it available to roots