Water Restrictions
Nutrient Uptake
Sod Installation
Bedding Plants
Dry Spots
Transport Survival
Trees
Drought
Shrubs
Flower Life
Crop Yields
Pesticide efficiency
Seed Germination
Water Conservation
Transplant Survival
Retail Shelf Life

Think Hydretain®

Ecologel Solutions, LLC

Whether a golf course superintendent, a landscape professional or a commercial grower, maintaining green and healthy turf grass, trees, shrubs, ornamentals and bedding plants is no easy task - even under ideal conditions.

A key concern is maintaining proper moisture levels at the roots so that your plants have what they need to remain healthy without the risk of overwatering. When conditions are dry we often increase watering frequency and volume to compensate. This can be costly and ineffective due to a number of factors beneath the soil surface. Understanding these factors is vital to moisture management at the roots where it most counts.

As we apply water, we are facilitating a critical balance of moisture, air, nutrients and beneficial bacteria that are available to the roots. Moisture also provides an important medium by which nutrients are distributed through the soil matrix. This process continues as long as proper moisture levels are maintained. Interrupting this process can put your plants at risk of drought-related stresses.

Images are for dramatization purposes. Supporting data on file.

Hydretain is manufactured in the United States

R20170810

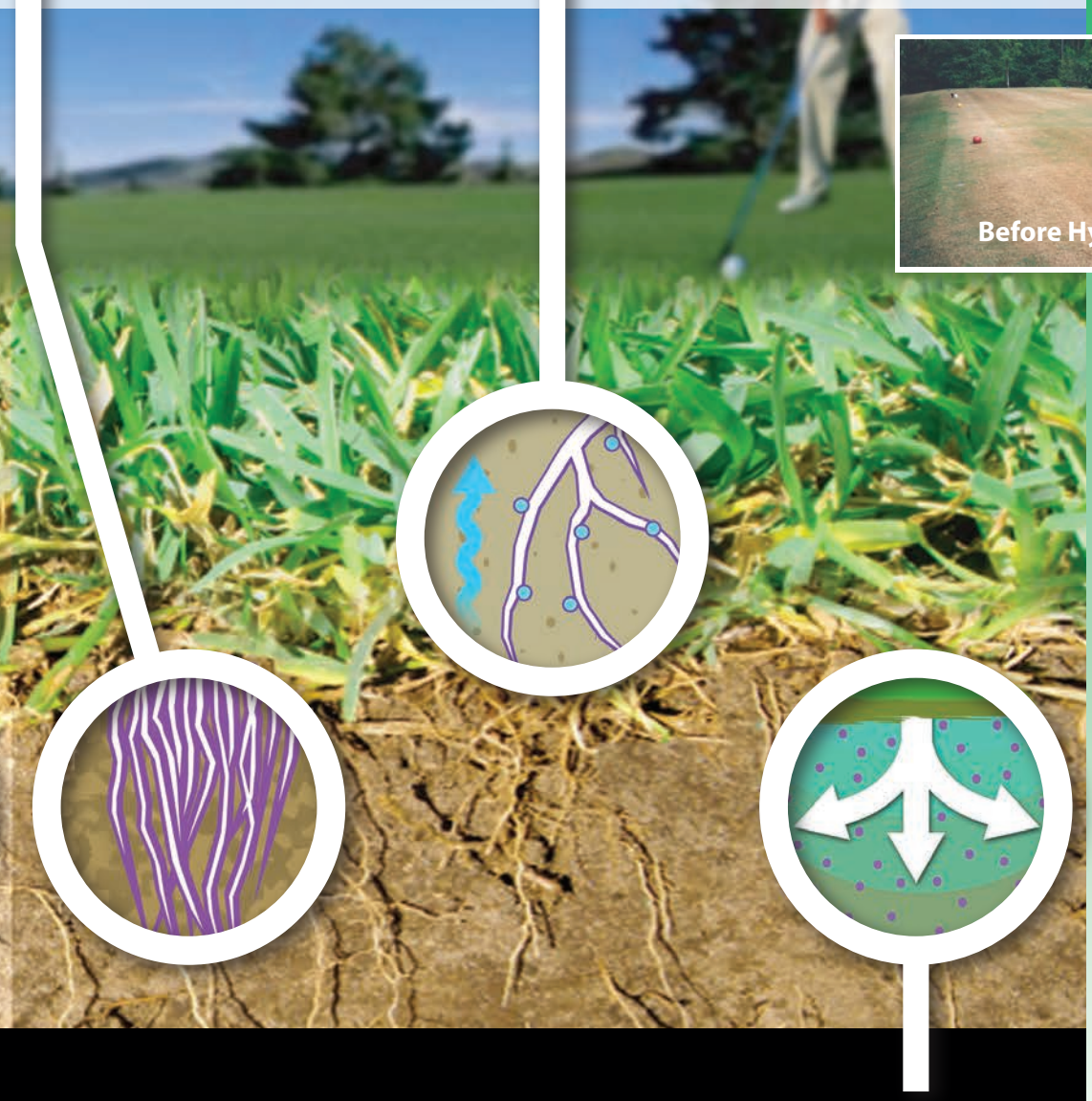
Gravity and evaporation are constantly working against you, pulling moisture out of the reach of roots as it returns to the aquifer and atmosphere. These two forces combine to create the potential for total moisture loss in the soil matrix when rainfall is scarce. If left unchecked, this damage can cause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

Chronically dry soils can become hydrophobic or moisture-resistant. Attempting to hydrate soil in this condition can be difficult as hydrophobic soils tend to channel moisture away through voids in the soil matrix and poor absorption results. This moisture is lost to gravity and offers little real benefit to plants resulting in brown spots on the surface.

As drought conditions progress, roots stops 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 and rot which can be equally damaging.

Not a wetting agent or superabsorbent polymer, Hydretain is instead an advanced, environmentally-conscious chemistry which forms a thin persistent film on root surfaces. Applying proprietary hygroscopic and humectant technologies to attract moisture, Hydretain gives plants an important ally in the drought cycle.

Hydretain captures and retains water vapor in the soil forming countless reservoirs that will prove vital to plant survival when moisture levels drop out of reach of the root zone. This prolongs healthy internal processes, reducing or eliminating drought stresses which lead to disease and pests.



Hydretain-treated soil will readily accept moisture even during the driest conditions. Instead of channeling it away, the soil permits absorption and dispersion of newly available water, suspending it in the soil matrix and making it readily available to plant roots.

Persisting through multiple waterings, the cycle of capturing vapor and droplet formation repeats, ensuring that plants have an uninterrupted supply of vital moisture. The film also travels with roots as they grow. As your plants respond to changing moisture conditions, be assured that they will benefit from Hydretain's lasting effects.

The practical benefits of Hydretain become clear in comparing treated and untreated plants and turf. Hydretain has consistently shown its unique ability to restore and maintain a proper moisture balance in dry, or drought-stricken soils.

Untreated plants take longer to recover from drought stress, while being far more susceptible to opportunistic disease and pests. Plants that are treated with Hydretain however generally go twice as long without irrigation before ever entering drought stress.

Hydretain's benefits are far more than isolated claims. Major university studies and greencare professionals from around the world continue to herald the benefits of Hydretain and its unique ability to reduce watering requirements by up to

50% or more!

Think Hydretain®

Professional Moisture Management
... made simple

Application:

Dilution: Hydretain is a concentrated formula designed for large scale applications. Dilute with water before applying. Minimum dilution rate 15:1 (water to Hydretain). Hydretain may be tank mixed or applied through injectors and fertigation systems.

Turf: General application rate - Apply 9 oz. of Hydretain per 1,000 sq. ft. (3 gallons per acre) by spray or drench once every 3 months or maintain monthly at 1/3 rate after initial full rate application. For best results apply to wet soil. Water in with at least 1/10 inch of water within the first couple of hours to insure Hydretain is washed off foliage and into the soil. Within 24 hours, follow with enough additional water to carry Hydretain down to and throughout the root zone. (The amount of additional water required to carry Hydretain throughout the root zone is dependant on the depth of the root zone of the treated area.) Additional Hydretain may be required to correct difficult and extreme dry spot areas. Hydretain may be applied at up to 5 times the general application rate as a single treatment or in multiple applications.

Wetting Agents & Penetrants: Hydretain is not a wetting agent. Wetting agents may be used before or with Hydretain ES for initial applications where thatch or hydrophobic soils restrict penetration. Hydretain ES Plus and Hydretain ES Plus II contain an excellent soil surfactant designed specifically to allow Hydretain to penetrate through thatch layers and hydrophobic soils, down to and throughout the root zone where Hydretain is designed to function.

Overseeding, Sodding, Sprigging: Apply Hydretain at general application rate (9 oz. per 1,000 sq. ft.) by spray or drench after seeding, sodding or sprigging. Water in with only enough water to rinse Hydretain off foliage and into the soil at seed level or the root area of new sod or sprig. An application of Hydretain made prior to overseeding, sodding or sprigging and watered into the root zone will manage soil moisture for existing turf during new turf establishment.

Trees, Shrubs & Individual Plants: Dilute Hydretain at a rate of 2 oz. per gallon of water and apply by drench thoroughly saturating the root zone. For maximum effectiveness on trees apply 4 to 8 ounces of concentrate for each inch of trunk diameter. Dilution rate is variable from 50:1 to 300:1.

Potted or Containerized Plants: Dilute Hydretain at a rate of 2 oz. per gallon of water and apply by drench, thoroughly saturating the planting media. Media should be dry enough to hold as much diluted Hydretain as possible. Hydretain may be applied through existing injectors at rates between 50:1 and 100:1. Higher dilution rates may require multiple applications to achieve desired results.

Large Planters & Gardens: Dilute Hydretain at a rate of 2 oz. per gallon of water or through injectors at a rate of 50:1 to 100:1 and apply at a rate of 2 ounces of concentrate per 60 sq. ft of area. One gallon treats 4,000 square feet.

For Best Results: Water thoroughly when re-watering Hydretain treated plants. Proper fertilization will enhance Hydretain's effectiveness. Hydretain is biodegradable. For maximum effectiveness reapply every three months or when required watering becomes more frequent. Reapply if a reduction in watering is not apparent within the first two weeks.

Caution: If Hydretain is applied to open flowers blooms, rinse with plain water to reduce the possibility of Hydretain pulling moisture from sensitive flower petals.

Hydretain is available in an array of package sizes ranging from 1 quart hose-end sprayers to 275 gallon totes.

Hydretain ES

Hydretain ES is a unique blend of humectant and hygroscopic compounds that manage root zone moisture, significantly extending periods between required waterings for turf, ornamental plants, shrubs, trees and agriculture.

Hydretain ES Plus

Hydretain ES Plus combines Hydretain's root zone moisture management technology with an advanced environmentally sound, renewable resource, non-ionic surfactant for improved soil penetration.

Hydretain ES Plus II

Hydretain ES Plus II combines Hydretain's root zone moisture management technology with an advanced environmentally sound, renewable resource, non-ionic surfactant for improved soil penetration and potassium humate for enhanced performance.

Hydretain products are only beneficial within the root zone and therefore must be watered in thoroughly after application. Hydretain products are biodegradable - reapply every 3 months or as needed.

Ecologel Solutions, LLC
4060 SE 45th Court
Ocala, FL 34480
Telephone 352-620-2020
Toll Free 888-545-6307
FAX 352-620-0312
http://www.hydretain.com

Think Hydretain®

Professional Moisture Management