



HYDRA GUARD

2018 – 2019

MANUAL

More Green, Less Water!



TABLE OF CONTENTS

Introduction..... 3

Soil Moisture Challenges 4

Product Information 5

Servicing Procedures 7

Testimonial 9

Marketing Collateral 10



Introduction:

When conditions are hot or 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 counts the most. A key concern is maintaining proper moisture levels at the roots so that the plants have what they need to remain healthy without overwatering, while facilitating a critical balance of moisture, air, nutrients and beneficial bacteria.

Moisture also provides an important medium by which nutrients are distributed through the soil profile. This distribution process continues for as long as proper moisture levels are maintained. Interrupting this process can put your plants at risk of drought-related stresses. 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 survival mode. It is during this time that the plant becomes most susceptible to opportunistic disease and pests.

This manual will address several common soil moisture related issues and the effects they have on lawns, Hydretain® product information, recommended application rates and timing, servicing procedures, estimates, and marketing materials.



Hydra GuardSM will keep the lawn and landscape healthy during seasonal drought and daily wilt cycles while allowing customers to see significant savings in application fees. The landscape that follows will be the envy of the neighborhood.



Soil Moisture Challenges:

Lawns and landscaping are susceptible to a number of soil moisture related issues that may affect their health, color and quality. Our Hydra Guard Program is designed to address these issues.

- **Poor Irrigation Coverage:**
Irrigation systems often have incomplete coverage. Hydra Guard will help minimize these inconsistencies by maintaining a more consistent soil moisture profile.
- **Watering Restrictions:**
Over the last several years, many municipalities have enacted watering restrictions, limiting watering days and times. Hydra Guard extends the time between required watering allowing landscapes to thrive while conforming to local watering restrictions.
- **High Water Costs:**
National water costs have increased an average of 54% since 2010. Some municipalities have experience increases in excess of 150%. The Hydra Guard program can help reduce water use by up to 50% or more.
- **Daily Wilt Cycles / Moisture Stress:**
Moisture Stress occurs when a plant's transpiration rate is higher than the rate of water uptake by the roots. It can be caused by a lack of moisture in soil, high temperatures, wind, poor root development, etc. Hydra Guard provides plants with additional moisture in between watering cycles, minimizing or eliminating daily wilt cycles.
- **Seasonal Drought:**
Seasonal drought can cause damage and possibly death to plant roots and foliage. Overwatering to compensate can lead to fungus and rot which can be equally damaging. Hydra Guard manages soil moisture to minimize drought damage.
- **Hydrophobic Soils:**
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 resulting in poor absorption. This moisture is lost to gravity and offers little benefit to plants, causing brown spots on the surface. Hydra Guard slows evaporative loss, reducing the dry out that causes hydrophobic conditions to develop, allowing soils to readily accept moisture even during dry conditions.



Product Information:

The Hydra Guard Program is powered by the Hydretain® root zone moisture management technology. Hydretain is an advanced, environmentally-conscious chemistry designed to reduce watering requirements for turf, ornamental plants, shrubs, trees and gardens by up to 50% or more. Hydretain is not another wetting agent, surfactant or super absorbent polymer crystal. It is actually a liquid group of hygroscopic and humectant components that attract moisture like tiny “water magnets” forming microscopic droplets within the root zone. This process allows plants to utilize soil moisture which would otherwise be lost to evaporation.

In addition to reducing overall watering requirements Hydretain manages moisture between watering or rainfall, reducing drought stress and providing the benefits of proper water management. For residential and commercial landscaping this means eliminated or controlled dry spots, enhanced nutrient & pesticide efficiency, improved sod and sprigging establishment, increased seed germination and greater survival rates for transplanted ornamental plants, shrubs and trees - all while minimizing or eliminating hand watering. Hydretain also helps to maintain optimal soil moisture for beneficial microbial activity without blocking pore space required for proper air transfer.

Hydretain is available in both liquid and granular product options under the national Hydretain brand as well as private labels, LESCO Moisture Manager and BioPro’s H3O Plus:

- 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.
- **NEW** - Hydretain Granular QD
 - Hydretain Granular QD (Quick Dissolve) utilizes a specialized mineral-based particle to create a rapidly releasing and environmentally friendly granule that delivers the power of Hydretain ES Plus in a form that is convenient for dry spreader applications.
- **NEW** - Hydretain Granular OC
 - Hydretain Granular OC (Organic Compost) utilizes a poultry compost to form a rapidly releasing and environmentally friendly granule that delivers the power of Hydretain ES Plus in form that is convenient for dry spreader applications.



Hydretain is easily applied to entire lawns and landscapes or just to localized dry spots, flower beds, around shrubs, trees and containerized plants.

Applications prior to plant stress are recommended for optimum plant protection; however, Hydretain can be used anytime during the plant's life cycle. Applications performed at the time of planting, seeding, sodding or transplanting will also improve plant establishment.



There is a visible difference between yards treated with Hydretain and those that are not. Hydretain has been used for years by golf courses and other lawn care professionals and has a proven track record of success.

Benefits of Hydra Guard:

- Prevent isolated dry spots from developing
- Improve irrigation efficiency and turf performance while using less water
- Reduce routine watering needs of turf, shrubs, trees & flowers by as much as 50%
- Even-out watering schedules by managing root zone moisture and preventing plants from drying out unevenly
- Hydretain is made from fully biodegradable and food grade material that is broken down via microbial action into trace nutrients
- Hydretain ES Plus is USDA BioPreferred product certified to contain 93% biobased content
- Kid and pet friendly – no reentry time required

Each application of Hydretain last for up to 3 months. Reapply every 3 months or apply $\frac{1}{3}$ rate monthly, $\frac{1}{2}$ rate every six weeks or $\frac{2}{3}$ rate bi-monthly, as a booster application(s), after the initial full rate application. It is, however, important to keep in mind that each case is different due to climate, seasonal weather, and ground types, so the timings are subject to change each season.



Servicing Procedures:

Hydretain's unique root zone moisture management technology effectively reduces the overall watering requirements of commercial and residential lawns and landscapes. Hydretain® effectively manages soil moisture between waterings to protect projects from drying out – especially when constant watering is either restricted, costly, impractical or labor intensive.

Once applied and watered in, Hydretain forms a thin film on seeds, root hairs and soil particle surfaces, which attracts moisture vapor to create microscopic water droplets. The droplets are drawn into the roots while the Hydretain remains in place extracting additional moisture from vapor in the soil air space. Hydretain converts this otherwise unavailable soil moisture into usable water droplets, reducing overall watering while eliminating or minimizing plant wilt cycles and drought stress.

Hydretain will help plants survive periods of low moisture by capturing and converting free water molecules into micro-droplets of water and making them available to plant roots. Application prior to drought stress is recommended for optimized plant protection, however, Hydretain can be used any time during the plants' life cycle.

Hydretain is beneficial for your customers by improving seed germination, sod installation, transplant establishment as well as reducing regular watering requirements while protecting established lawns and landscapes.

Liquid Applications must either be applied with a high volume of water or watered in with at least 1/10 inch of water within the first couple of hours to ensure 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 dependent on the depth of the root zone of the treated area.)

Granular Applications, Hydretain will not become functional until it is properly watered into the rootzone. To prevent mower pick-up, delay mowing until product has been watered in by irrigation or rainfall. Irrigation soon after application is recommended, however, within 3-5 days is acceptable. When watering in, it is important to irrigate thoroughly allowing Hydretain to completely penetrate and saturate the root zone.

When to Apply: Hydretain is beneficial throughout the growing season and especially when there is a high demand for water. It is best to apply Hydretain proactively before hot dry periods but is also effective reactively to alleviate noticeable wilt and drought stress. The best time to apply will depend on local growing season and normal weather patterns. Applications in the springtime will improve installation establishment and winter recovery. Summer applications to protect against heat and drought stress while reducing watering costs. Fall and winterization applications for fall seeding projects and protection from winter desiccation.



Lawn Application Instructions

PRODUCT TYPE	APPLICATION RATE - LAWN	MAINTENANCE RATE - LAWN	APPLICATION INSTRUCTIONS
GRANULAR PRODUCTS	2.7 LBS PER 1,000 SQ. FT. (120 LBS. PER ACRE)	REAPPLY EVERY 3 MONTHS OR APPLY ½ RATE EVERY SIX WEEKS OR ⅓ RATE BI-MONTHLY, AS A BOOSTER	APPLY TO ESTABLISHED LAWNS, OR AT THE TIME OF SEEDING, SODDING OR SPRIGGING. HYDRETAIN GRANULAR PRODUCTS NEED TO BE WATERED IN TO BE EFFECTIVE.
LIQUID PRODUCTS	9 OZ. PER 1,000 SQ. FT. (3 GAL PER ACRE)	REAPPLY EVERY 3 MONTHS OR APPLY ⅓ RATE MONTHLY, ½ RATE EVERY SIX WEEKS OR ⅓ RATE BI-MONTHLY, AS A BOOSTER	APPLY BY SPRAY, DRENCH OR FERTIGATION INJECTION TO ESTABLISHED LAWNS OR A THE TIME OF SEEDING, SODDING OR SPRIGGING. FOR SPRAY APPLICATIONS WATER IN IMMEDIATELY FOLLOWING APPLICATION.

Cost Breakdown per Application - Lawn

PRODUCT NAME	APPLICATION RATE - LAWN	APPROXIMATE PRODUCT COST	COST PER 1,000 SQ. FT.	AREA COVERED PER BAG
Hydretain Granular QD	2.7 LBS PER 1,000 SQ. FT.	\$53.00 - \$60.00	\$3.80	A 40 LB BAG COVERS UP TO 14,800 SQ. FT.
Hydretain ES Plus	9 OZ. PER 1,000 SQ. FT.	\$92.85 - \$102.85	\$2.80	A GALLON COVERS UP TO 14,200 SQ. FT.

Additional Application Instructions

PRODUCT TYPE	LARGE PLANTERS & GARDENS	SHRUBS, INDIVIDUAL PLANTS & CONTAINERS	TREES	SEEDING, SODDING OR SPRIGGING
HYDRETAIN GRANULAR	APPLY AT A RATE OF 1 POUND FOR EACH 100 SQUARE FEET OF PLANTER BED.	APPLY AT A RATE OF 1 POUND PER CUBIC FOOT OF SOIL EITHER TOPICALLY OR MIXED INTO SOIL AT PLANTING.	APPLY AT A RATE OF 1.5 TO 2 POUNDS FOR EACH CALIPER INCH.	APPLY 2.7 LBS. PER 1,000 SQ. FT. IMMEDIATELY BEFORE OR AFTER SEEDING, SODDING OR SPRIGGING.
HYDRETAIN LIQUID	APPLY 2 OZ. OF CONCENTRATE PER 60 SQ. FT. OF AREA. ONE GAL TREATS 4,000 SQ. FT.	DILUTE HYDRETAIN AT A RATE OF 2 OZ. PER GAL OF WATER AND DRENCH TO THOROUGHLY SATURATE THE ROOT ZONE	APPLY 4 TO 8 OZ OF HYDRETAIN CONCENTRATE PER 1 INCH OF TRUNK DIAMETER	APPLY 9 OZ. PER 1,000 SQ. FT. IMMEDIATELY BEFORE OR AFTER SEEDING, SODDING OR SPRIGGING.

Labels, SDS & Complete Application Instructions are available at www.hydretain.com/labels-sds



Testimonial:

We are excited to report that our newest program, Hydra Guard, has made a major impact on many of our customers lawns. The “before” photos show a lawn that we service in Wesley Hills, NY that was under extreme heat stress on 8/10. The “after” photo was taken 20 days after Hydra-Guard was applied. Not too bad for a lawn on a severe slope with full sun exposure and minimal irrigation during a heat wave. Although this 2-service program is designed to keep your lawn green and healthy while neighboring lawns are browning it is also an important ally to re-green an already stressed lawn. Hydra-Guard will also cut lawn watering by up to 50%. If applied with seeding it really makes a huge difference in the germination.

It’s easy to incorporate Hydra guard into your services, and very cost effective. While attending the 2017 LD conference, I was speaking with a few franchisee’s that were using a similar product and we discussed offering it as a 2-service program. This season we marketed the Hydra Guard Program to our customers and closely monitored the lawns that were receiving it. We still scheduled the application as a stand-alone service due to the timing, early July and Early August. This granular product is the real deal and I’ve noticed a huge improvement in these customers’ lawns. Interestingly enough, we have made several applications to lawns that were totally browned out from heat stress and had them golf course green, usually within 12 days. When offered as a 2-service program, the lawns stayed green throughout the summer and looked really good. The granular is easy to apply (5#’s per k) and does not need to be watered in immediately. This has been a valuable tool for my customers without irrigation. The lawns with irrigation were able to significantly reduce their watering times and still maintain a lush green lawn. **John Pelliccio, Lawn Doctor of Rockland County, NY**

Customer Testimonial:

Hi John,

I wanted to wait a few weeks regarding the hydra guard before contacting you to give it some time. My lawn looks great again. I am not sure what the product does, but it worked and the lawn is coming back nicely.

Thanks again,

Andrea R.



Before Hydra Guard



After Hydra Guard



Marketing Collateral:

Buck Slip



Post It



Real Green Box



Consumer Email Campaign

AMA/ CAW Banner



Social Media & Display

