

INNOVATION GIVES YOU FLEXIBILITY



CUSTOMIZABLE RATES
that fit into any spray
program



**OPTIMIZED
IRRIGATION EFFICIENCY**
to maximize water inputs



ENHANCED DELIVERY
of nutrients and control
products into the
root zone



**TRUSTED CASCADE™
PERFORMANCE**



**IMPROVED BIOTIC
STRESS RESISTANCE**
with uniform and balanced
root zone hydration

MAKE EVERY DROP COUNT


Introducing **Cascade Tre™** to our family of innovative soil surfactants. Delivering the same trusted performance you've relied on from the Cascade™ brand, Cascade Tre offers improved safety features allowing customization of your irrigation schedule. Increased formulation flexibility provides customizable rates and enhanced turf safety after delayed watering, maximizing your time and course playability.



◀ Learn more on our website



800-323-6280



At Precision Laboratories, innovation isn't a buzzword – it's built into every product we design. Our products are university and field-tested to ensure biological performance and optimum value.

**INNOVATIVE, SENSIBLE,
EFFECTIVE PRODUCTS.**

CASCADE™ TRE

PRODUCT SHEET



Cascade™ Tre builds upon the cornerstone product of Precision Laboratories and brings innovation to the **Cascade™** brand. Delivering the same trusted performance of the **Cascade™** legacy, but with optimized water use efficiency and turfgrass safety. Versatile rates allow turfgrass managers to customize their **Cascade™ Tre** program to achieve their desired hydration and playability.

PRODUCT FEATURES:

- Optimized water use efficiency
- Uniform and balanced rootzone hydration
- Versatile rates to customize your maintenance program
- Improved turfgrass safety, even with delayed watering
- Trusted **Cascade™** performance

USE RATES:

- 2-8 fluid ounces per 1,000 ft²
- Apply 4 fluid ounces per 1,000 ft² for one month of water management performance.
- Use varying labeled rates for shorter or longer duration.

PACKAGE SIZES:

- 2 x 2.5 gallon case
- 20 gallon drum
- 55 gallon drum
- 265 gallon minibulk

CASCADE™ TRE

TRUSTED CASCADE™ PERFORMANCE WITH
SAFETY & FLEXIBILITY

The **Cascade™** brand has been a staple in turfgrass managers' maintenance programs for years. It has a demonstrated history of effectively reducing localized dry spots, improving irrigation efficiency, and producing a superior playing surface. However, immediate irrigation was required to achieve optimal performance and avoid turf injury.

Cascade™ Tre, the next innovation in the **Cascade™** brand, was built to provide the same trusted **Cascade™** performance, with the flexibility to delay watering after application without concern of turf injury.



Cascade™ Tre applied at 4-times the label rate with 24-hour delayed irrigation.



Cascade™ Tre treated creeping bentgrass 24-hr later with no phytotoxicity.

In **PROVE™** demos across the country, **Cascade™ Tre** was applied at 4-times the label rate with delayed watering to demonstrate consistent turf safety.



From 24-hour delays on creeping bentgrass greens in the north to 12-hour delays on bermudagrass greens in the south, **Cascade™ Tre** displayed consistent turf safety.

Cascade™ Tre provides turf managers a soil surfactant with proven turf safety, versatility, and trusted **Cascade™** performance.

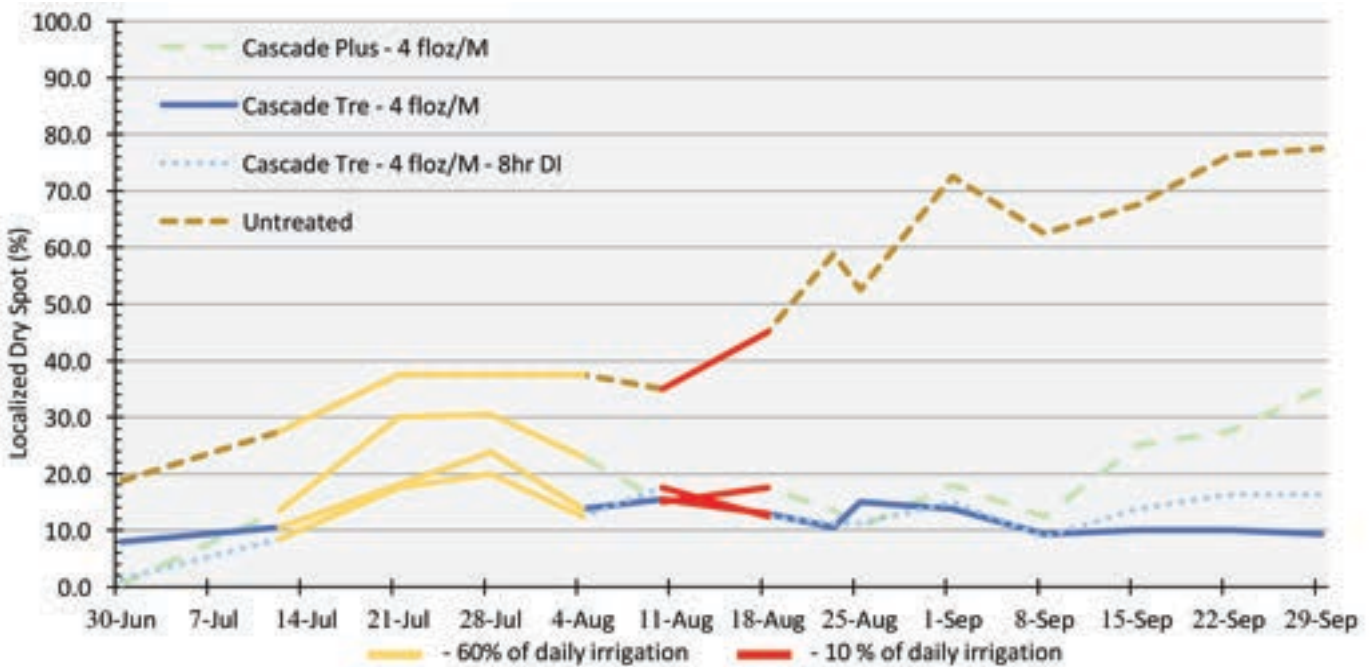
CASCADE™ TRE

TRUSTED CASCADE™ PERFORMANCE WITH SAFETY & FLEXIBILITY

Time and flexibility are essential; **Cascade™ Tre** was developed with that in mind. Research conducted at the University of Arkansas subjected **Cascade™ Tre** to delayed irrigation following application and reduced water inputs throughout the season to demonstrate superior performance under stress.

Cascade™ Tre ...

- Mitigated localized dry spot by **34%** throughout the season compared to **Cascade™ Plus**
- Optimizes season-long water use efficiency to maximize water inputs
- Utilizes variable use rates to provide you with more flexibility
- Delivers superior performance and turfgrass safety even without immediate watering after application



Cascade is a trademark of Precision Laboratories, LLC

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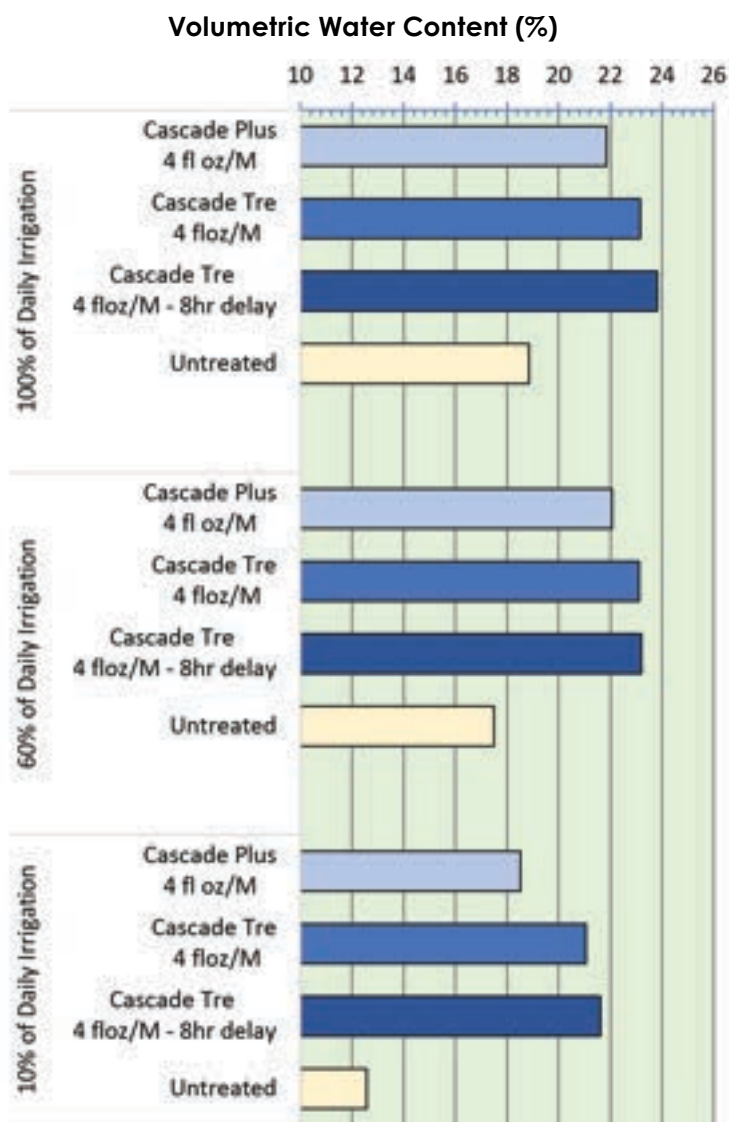
PRECISION
LABORATORIES
Results. Expect it.™

CASCADE™ TRE

SUPERIOR PERFORMANCE IN DROUGHT CONDITIONS

Drought and municipal water bans have left turf managers to maximize their water inputs. **Cascade™ Tre** addresses this issue by optimizing water use efficiency and maintaining desired moisture under reduced inputs.

Cascade™ Tre treated university trial plots displayed superior performance when subjected to multiple periods of reduced daily irrigation. This demonstrates the enhanced water holding capabilities even when limiting daily irrigation to 60% or 10% for two-week periods. **Cascade™ Tre** maximizes the water available to maintain optimal soil moisture and produce consistent, firm playing surfaces, even when water is limited.



Cascade™ TRE
HYDRATION & INFILTRATION














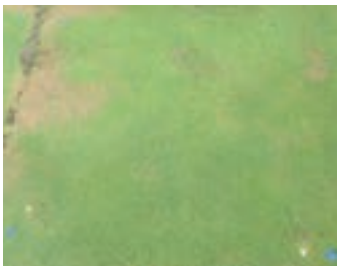

- Maximized reduced water inputs by 5 to 12% more than **Cascade™ Plus**.
- Retained 14 to 32% more water than without a soil surfactant.
- Maintained rootzone moisture when water inputs decreased 40%.

Impact

- Optimizes reduced water inputs.
- Reduces irrigation necessary to maintain desired soil moisture.
- Delivers enhanced performance and innovation to the **Cascade™** brand.

CASCADE™ TRE

SUPERIOR PERFORMANCE IN DROUGHT CONDITIONS

	Cascade™ Tre 4 fl oz/M	Cascade™ Plus 4 fl oz/M	No Soil Surfactant
June 27th 100% daily irrigation			
July 26th 60% daily irrigation			
August 17th 10% daily irrigation			
August 23th Rewet & Recovery			
September 20th 100% daily irrigation			

SOIL SURFACTANTS

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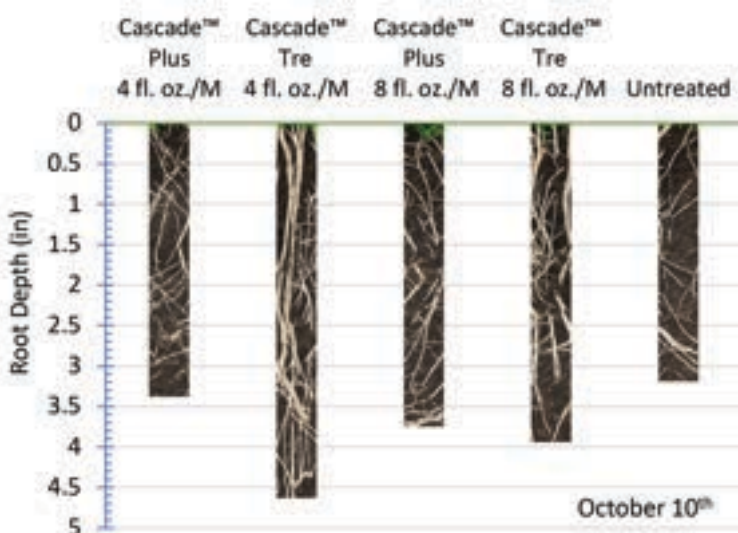
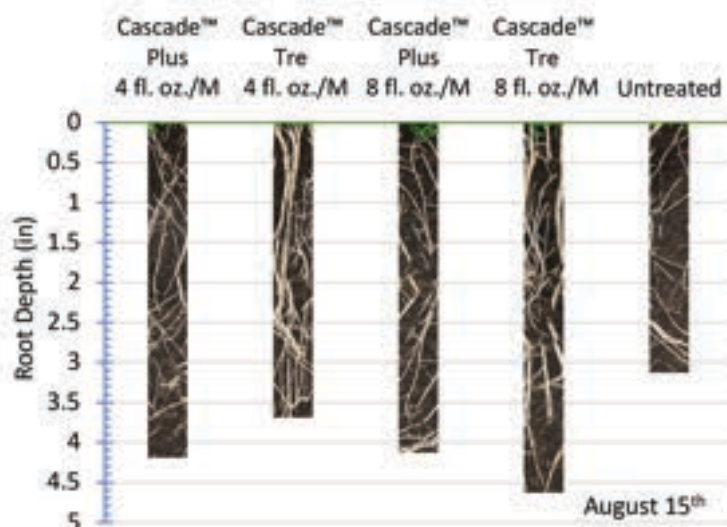
CASCADE™ TRE

INCREASED ROOTING IN DROUGHT CONDITIONS

Water limitations and drought conditions are on the rise, leading to water stressed turfgrass across the country. Turfgrasses respond to this stress by growing deeper roots in search of water.

Texas A&M and Precision Labs conducted a simulated dry down experiment under drought conditions on a zoysia putting green to assess the improvement in rooting depth after using **Cascade™ Tre** and **Cascade™ Plus**.

From reducing irrigation by 40% in August, to maintaining typical irrigation throughout the fall (October), **Cascade™ Tre** treated turf had from 0.5" to 1.5" greater root length, depending on the rate compared to original **Cascade™ Plus** and no wetting agent at all. During drought conditions, **Cascade™ Tre** increased soil water holding capacity deeper in the rootzone, that led to increased root growth.




Deeper roots with Cascade™ Tre ...

- Helps turfgrass access more water and nutrients deeper in the rootzone.
- Improves turfgrass resistance to stress, such as drought, heat, and other abiotic stressors.
- Anchors the turfgrass for a firmer and faster playing surface.
- Enhances soil structure.

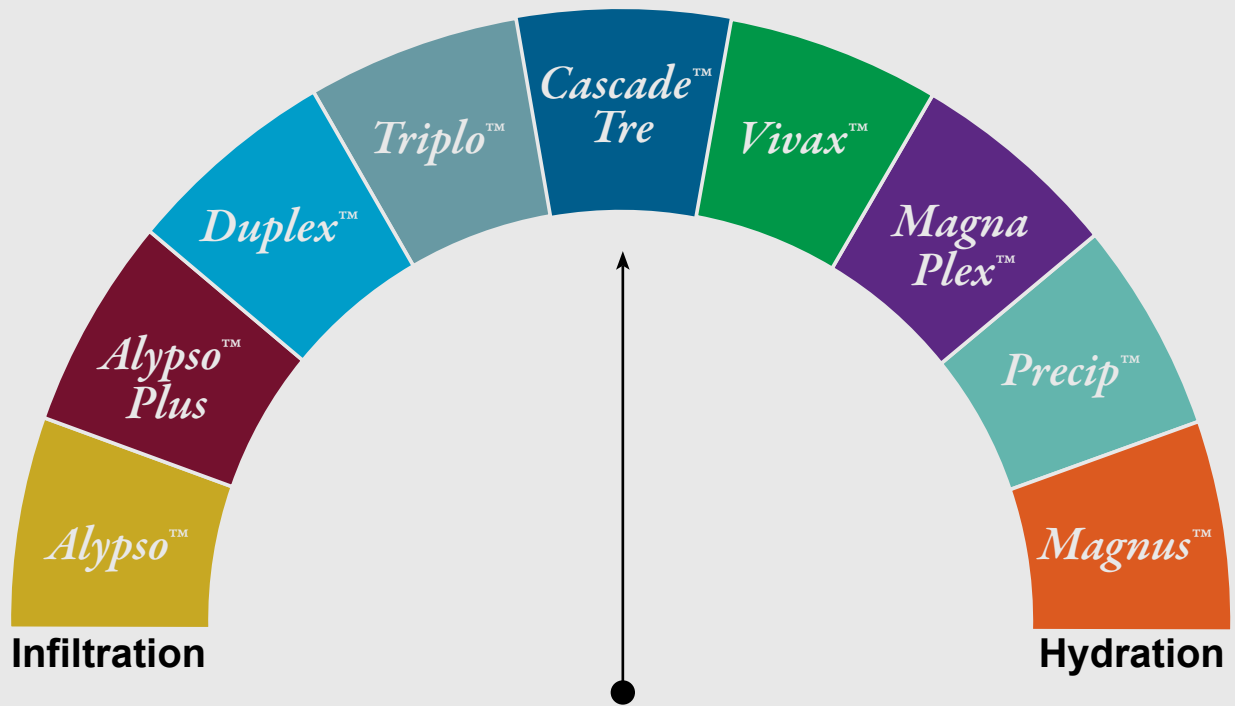
PROVE™ Trial Results from Texas A&M **PROVE**

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PRECISION
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DIAL IN YOUR WATER MANAGEMENT PROGRAM



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CASCADE™ TRE

Hydration & Infiltration

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PRINCIPAL FUNCTIONING AGENTS

NONPLANT FOOD INGREDIENTS

ACTIVE INGREDIENTS:

87.50% Ethylene oxide-propylene oxide copolymer

INERT INGREDIENTS:

12.50% Ethoxylated Fatty Ester Derivatives

100.00% TOTAL

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

If medical advice is needed, have product container or label at hand. Read label before use.

PERSONAL PROTECTIVE EQUIPMENT (PPE)



Applicators or other handlers of this product should wear: long-sleeved shirt, long pants, socks, shoes, protective eyewear, and chemically impervious gloves. Consult the SDS for further information.

FIRST AID

If In Eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

If On Skin:

Wash affected area with plenty of soap and water. Cold water may be used. If skin irritation occurs: Get medical advice or attention.

If Inhaled:

Move person to fresh air and keep comfortable for breathing. If person is having difficulty breathing, give oxygen. If not breathing, give artificial respiration.

If Swallowed:

Rinse mouth. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give any fluids to an unconscious person.

GENERAL INFORMATION

Cascade Tre is formulated to improve the uniformity of water infiltration and hydration of the soil matrix, resulting in enhanced retention of volumetric moisture for extended periods of time within the soil profile.

CASCADE TRE IS SUITABLE FOR USE ON GOLF COURSES, ATHLETIC FIELDS AND RESIDENTIAL OR COMMERCIAL TURF, UNDER THE SUPERVISION OF GOLF COURSE SUPERINTENDENTS, SPORTS TURF MANAGERS OR PROFESSIONAL LANDSCAPE CONTRACTORS.

DIRECTIONS FOR USE

Always mix and apply Cascade Tre in accordance with label instructions. Follow the application and mixing guidelines provided in this label.

APPLICATION TECHNIQUES

Apply Cascade Tre prior to the onset of conditions that promote soil hydrophobicity or turf stress. Watering after the application will improve results by moving the product through

the existing thatch layer into the root zone. In situations where tank mix partners achieve maximum efficacy by remaining on the leaf blade, irrigation may be delayed as specified on the tank mix partner's label. During periods of high temperature, all soil surfactants should be watered in to increase performance and safety.

USE RATES

2-8 fluid ounces (per 1,000 square feet)

Apply Cascade Tre at the rate of 4 fluid ounces (148 mL) in a minimum of 1 gallon (3.79 L) of water per 1,000 square feet (92.9 m²) of turfgrass for 1 month of water management performance.

Reduced rates of 2 – 3 fluid ounces (74 – 111 mL) in a minimum of 1 gallon (3.79) of water per 1,000 square feet (92.9 m²) can be applied at closer intervals.

Apply Cascade Tre at the rate of 8 ounces (296 ml) in a minimum of 1 gallon (3.79 L) of water per 1,000 square feet (92.9 m²) of turfgrass for greater than 1 month of water management performance.

STORAGE AND DISPOSAL

Protect product from freezing. If product freezes, warm to room temperature before use. Store in original container only and do not reuse empty container. Triple rinse (or equivalent) during mixing and loading. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org. Decontaminated containers and materials must be disposed of in a manner allowed by local, state and federal laws and regulations.

Information regarding the contents and levels of metals in this product is available on the internet at <http://www.aapfco.org/metals.htm>

CONDITIONS OF SALE

Note: Read the information contained herein before buying or using this product. If the stated terms are not acceptable, return the product at once, unopened. It is critical that this product be used and mixed only as specified on this label. Neither the manufacturer nor the seller makes any representation or warranty, expressed or implied, with respect to the results from the use of this material. Buyer and user assume all risks of use and/or handling. Precision Laboratories, LLC warrants that this material is reasonably fit for use as specified on this label. No agent or representative is authorized to make any other representations concerning this material. Unforeseen factors beyond Precision's control prevent elimination of risks in connection with the use of its chemicals. Such risks include, but are not limited to, damage to plants and/or crops to which the material is applied, or lack of complete control and damage caused by drift to other plants or crops. Such risks may occur even though the product is reasonably fit for use as stated herein and even though label directions are followed. Follow directions carefully. Timing, mixture, method of application, weather and other conditions are influencing factors in the use of this product and are beyond the control of the seller. Except to the extent prohibited by applicable law, the exclusive remedy of the user or buyer and the limit of liability of the company or any other seller for any and all losses, personal injuries or damages resulting from the use of this product, shall be the purchase price paid by the user or buyer for the quantity of product involved.

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