

# Strategic Stress Management Program for Alleviating Summer Stress

**Strategic Stress Management for intensively maintained turfgrasses starts with building the strongest stand of turf possible.** Ocean Organics products and programs help you:

- Build more stress tolerant turf, with superior quality, plant density, and root growth
- Maximize your turf's physiological performance even under high heat and UV exposures
- Help your turf survive under a wider variety of predictable and unpredictable stress conditions, including salinity, sodicity and drought.

## SCIENCE-BASED SUMMER STRESS PROTECTION... INDEPENDENTLY TESTED AND PROVEN

Summer stress decline in cool season grasses is a major challenge for most superintendents most years. It almost always involves high temperatures and UV overexposure, and often includes drought, salinity and sodicity.

For 6 years beginning in 2008, Ocean Organics developed, tested and refined a program using 5 products to produce significant improvements in tolerance to summer stress and other serious abiotic sources of stress. Research was conducted at Rutgers University; Virginia Tech; University of California, Riverside; and with independent researchers and consulting agronomists.

**The Ocean Organics Strategic Stress Management Program showed superiority under high heat and prolonged UV exposure in trials at Virginia Tech.**

### #1

**The Ocean Organics Program – #1 at Rutgers Summer Bentgrass Decline Trials, 2012 and 2013.**



## WHAT DOES THE RESEARCH SHOW?

Ocean Organics products showed **improved turf quality, root viability, and recovery** under a variety of stresses:

- Heat
- Prolonged UV exposure
- Drought
- Salinity
- Sodicity

*“Ocean Organics’ treatments clearly offered the most notable results during both the spring and summer... products promoted **significantly higher turf quality, green leaf biomass, and plant density** compared to the control during most of the experimental periods.”<sup>1</sup>*

## THE STRATEGIC SUMMER STRESS MANAGEMENT PROGRAM FOR C-3 GREENS

Our objective is to help you improve the physiological fitness of the turfgrasses you manage in order to maximize both performance and survival potential under the widest variety of stress conditions.

	Spring	Summer	Fall
<b>SeaBlend®</b> Granular Greens Fertilizer	Two 1/2 lb. N apps per 1000 sq. ft. two weeks apart		Two 1/2 lb. N apps per 1000 sq. ft. two weeks apart
<b>Guarantee®</b> Liquid Kelp Extract	3-6 oz. per 1000 sq. ft. every 2 weeks		3-6 oz. per 1000 sq. ft. every 2 weeks
<b>NuRelease®</b> Liquid Soil Additive		3/4 oz. per 1000 sq. ft. every 2 weeks	
<b>Stress Rx®</b> Foliar Fertilizer		3-6 oz. per 1000 sq. ft. every 2 weeks	
<b>XP Micro®</b> Foliar Fertilizer		3-6 oz. per 1000 sq. ft. every 2 weeks	3-6 oz. per 1000 sq. ft. every 2 weeks

1. Pitting PGRS and Biostimulants Against Summer Bentgrass Decline...Rutgers researchers Seek Practical Measures for Alleviating SBD on Creeping Bentgrass Greens. Foundation News, Tri-State Turf Research Foundation. Fall 2013. Vol 16. No 1. Research by Dr. Bingru Huang and David Jespersen).

# Strategic Stress Management Program for Alleviating Salinity & Sodicity Stress

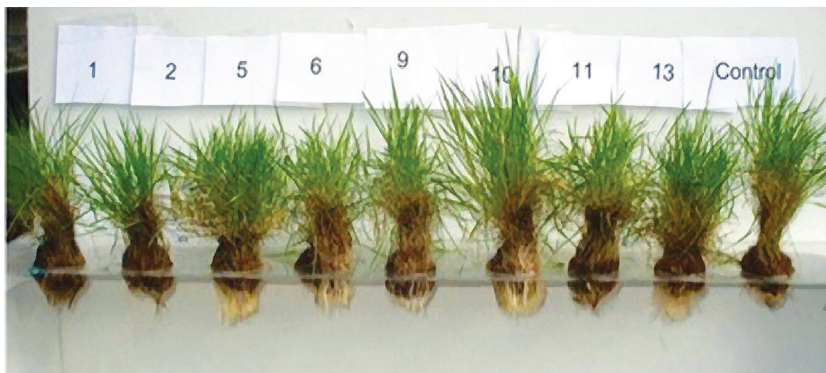
Some abiotic stresses like salinity, sodicity and drought seem to be getting worse and becoming more widespread. These are no longer just “sunbelt” issues that impact turf professionals managing warm season turfgrasses. Salinity, sodicity and drought challenge superintendents who manage both warm and cool season turfgrasses. For nearly a decade, Ocean Organics has been involved in researching and developing solutions to these increasingly serious problems.

**2014** Ocean Organics #1 out of 30 programs tested at University of California- Riverside, Dr. James Baird. *Bermudagrass*.

**2013** Ocean Organics #1 out of 20 programs tested at University of California -Riverside, Dr. James Baird. *Bermudagrass*.

**2008** Ocean Organics #1 out of 9 programs tested. GCSAA Hi-Lo Desert Chapter, Indio, CA. Research conducted by Mark Mahady & Assoc., Carmel, CA. *Bermuda Grass greens*.

**2006** Ocean Organics #1 out of 7 programs tested. GCSAA Northern CA Chapter, Monterey, CA. Research conducted by Mark Mahady & Assoc., Carmel, CA. *Poa Annuu greens*.



Dr. Erik Ervin's work at Virginia Tech showed that even 28 days after the end of the stress period, turf treated with Stress Rx (#10) and the product that would evolve into XP Micro (#5) had roots that were longer and healthier than the controls.

#1

Ocean Organics –  
#1 Top Performing  
Products and Programs For  
Alleviating Salinity &  
Sodicity Stress In  
Warm & Cool Season  
Turfgrasses

## PROGRAM RECOMMENDATIONS FOR GOLF COURSE GREENS

To alleviate salinity, sodicity and drought stresses, use the Ocean Organics 3-pronged strategy – **DeSal**, **Stress Rx** and **XP Micro** applied every two weeks April through October.

- Treat the symptoms
- Repair the damage
- Correct the causes

Apply Ocean Organics products as follows:

<b>DeSal®</b> Liquid Soil Additive	0.75 oz. per 1000 sq. ft. every 2 weeks
<b>Stress Rx®</b> (6-0-2) Foliar Fertilizer	6 oz. per 1000 sq. ft. every 2 weeks
<b>XP Micro®</b> (5-0-0) Foliar Fertilizer	6 oz. per 1000 sq. ft. every 2 weeks

**Ocean Organics' proactive programs deliver scientifically proven protection against the widest variety of abiotic turfgrass stressors. Call today to get started.**

Ocean Organics is a manufacturer of high performance, scientifically proven seaplant-extract based biostimulants, plant growth materials and granular fertilizers. Our state-of-the-art products contain unique and proprietary constituents. Founded in 1977, we are the developers and manufacturers of the Emerald Isle foliar fertilizers and biostimulants, now owned and distributed to professional turf and ornamental markets by Lebanon Turf Products. Our materials have been tested in over 25 universities and independent laboratories.



**Ocean Organics®**

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