

STRESS TOLERANCE AND RECOVERY™

BROAD SPECTRUM SUMMER STRESS PROTECTION

FOR INTENSIVELY MAINTAINED TURFGRASSES

Scientifically-Proven Stress Management

Ocean Organics' STAR™ Program delivers scientifically-proven stress management:

- Enhanced heat tolerance
- Increased drought tolerance
- Superior salinity and sodicity stress tolerance

It features two unique products – **NuRelease®** and **Stress Rx™** that together can help you deliver superior turf quality over a wider range of demanding conditions.

High temperatures cause major problems for intensively-maintained turfgrasses. Photosynthesis becomes less efficient and produces fewer carbohydrates leading to carbohydrate depletion. Heat stress releases destructive free radicals, decreases amino acid production, shortens roots and compromises nutrient uptake.

Turf under high temperature stress is also less able to produce plant-protective compounds like cytokinins, osmoprotectants and antioxidants just when it needs them the most.

And more and more turf managers are dealing with added issues like drought, salinity and sodicity. Together,

**SUPERIOR
PLANT HARDINESS
DROUGHT TOLERANCE
HEAT TOLERANCE
SALINITY TOLERANCE
SODICITY TOLERANCE**

The STAR™ Program

NuRelease® & Stress Rx™

A Two Product, Two Pronged Approach Targeting:

- **Deficiencies in the Rootzone**
- **Weaknesses in the Plant**

NuRelease and **Stress Rx** provide powerful stress tolerance tools to help your turf (and you) under the most difficult conditions.

NuRelease®

Your "GET OUT OF JAIL FREE" Card

NuRelease – the key to releasing the nutrients locked up in your root zones. Not just P, but also K, Ca, Fe, Mg, Mn and Zn.

- NuRelease is a proprietary combination of carboxylic acids that not only releases insoluble phosphorus, but also releases P-bound cations, including K, Ca, Fe, Mg, Mn, and Zn.
- Phosphorus is necessary to make ATP, the chemical "currency" that allows photosynthesis to drive carbohydrate production.
- NuRelease allows you to "mine" phosphorus that's already in your rootzone but "locked-up" and unavailable — so it's exceptionally cost effective.
- NuRelease technology was the top performer in decreasing soluble salts in two field trials in California, outperforming *seven* competitive products on both warm and cool season grasses.

EFFECTIVE. AFFORDABLE. SUSTAINABLE.

STAR™
is a proactive program
that will help you increase
your turf's ability
to withstand extreme
stresses from
multiple sources.

Stress Rx™

The most diversified combination of stress tolerance and plant strengthening constituents available to help intensively-maintained turfgrass plants better tolerate the physiological effects of heat, drought, salinity and sodicity.

Stress Rx Contains:

- The most diverse and complete combination of biorational compounds available in a single foliar-applied product. It includes a proprietary **seaweed extract** and an array of other plant beneficial botanical extracts.
- Unique **osmoprotectants**, like glycinebetaines, the compounds that allow seaplants to adjust and survive in salt water.
- **PRO-AMINO™ TECHNOLOGY** — Ocean Organic's unique formulation: 18 of 20 proteinogenic amino acids from three plant-derived sources for stress reduction, osmotic balance and micronutrient chelation.

Independently Tested Over a 5-year Period

University research (Rutgers, Virginia Tech) has shown the technology in **Stress Rx** results in statistically-improved turf quality under drought, salt, heat and UV stress (improved quality, relative water content, roots, recovery; less membrane leakage and leaf senescence).

- **Powerful pigments** like xanthophyll that stabilize photosynthetic membranes and act as effective antioxidants to scavenge plant damaging free radicals.

NuRelease + Stress Rx A Powerful One-Two Punch

Field trials on both cool and warm season grasses on golf course turf under play have proven the stress-relieving benefits of both **NuRelease** and **Stress Rx**. When used as directed in a program, these materials will help you increase your turf's:

- Heat stress tolerance and survival potential
- Drought stress tolerance and recovery
- Salinity and sodicity stress tolerance thresholds
- Ability to withstand higher levels of U.V.- triggered oxidative stress and related free radical damage
- Recovery capability following extended periods of stress



At the end of the day, it comes down to doing everything you can to build the strongest, healthiest, turfgrass stand possible. **NuRelease** and **Stress Rx** can help you do exactly that. Together they provide a diversified arsenal of materials to help you maximize the genetic potential, physiological fitness, and stress tolerance of the turfgrasses you manage.

Call us today, or ask your independent turfgrass distributor for more information on Ocean Organics' innovative and powerful Stress Tolerance And Recovery (STAR) program.

Founded in 1977, Ocean Organics is a manufacturer of high performance, sustainable, scientifically proven marine based biostimulants, plant growth materials and granular fertilizers. Our products contain unique and proprietary constituents including state-of-the-art extracts from seaplants and other renewable natural botanical resources. Our materials have been tested in over 25 universities and independent laboratories.



Ocean Organics®

Manufacturing

Waldoboro, Maine • 888-312-0106

Administration

Ann Arbor, Michigan • 800-628-GROW (4769)
oceanorganics.com