TurfCare Supply, LLC

AMP-XC™ Technology Efficacy Studies

AMP-XC™ Technology and it's Components are Backed by 600+ Efficacy Studies Across the United States and Abroad

While many of AMP-XC™'s base components were conceived in the crop sciences, this master formulation has been reengineered and perfected for turf, ornamentals and seeding.

From the purified and highly soluble humic substances and EDTA iron, to the hundreds of uniquely beneficial microbial metabolites and compounds that comprise this formula, AMP-XC™ has been thoroughly researched and tested to ensure maximum performance on any turf in any growing environment.

Research studies conducted by the following institutions +

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University of Arkansas
University of Missouri
Auburn University
University of Nebraska
University of Tennessee
South Dakota State
Kansas State
Mississippi State
Oklahoma State
Michigan State
North Carolina State
Ohio State
Purdue University
University of Minnesota
University of Illionois
Cornell University
University of Florida
University of Georgia
University of California
University of Wisconsin
Washington State University
Texas A&M
Penn State University
Rutgers
University of Kentucky
University of North Texas
Ole Miss University
University of South Florida
University of Texas, Arlington
University of Alabama
Lancaster University

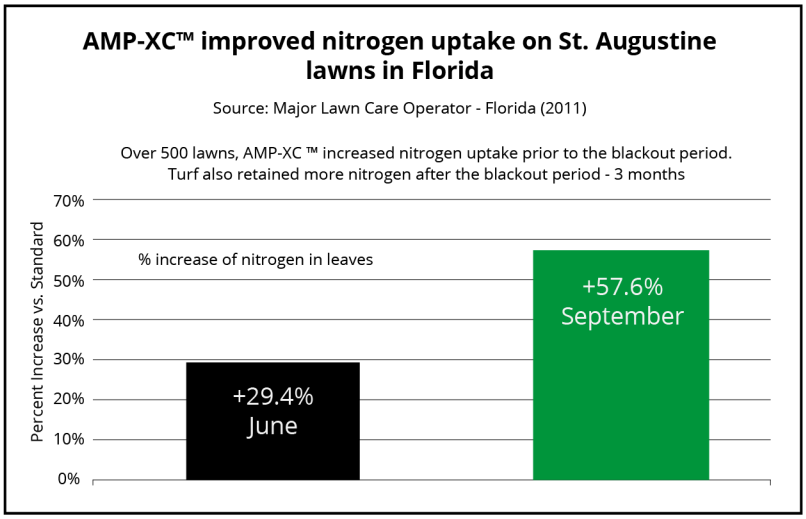
AMP-XC™ Efficacy Studies Table of Contents:

1. AMP-XC™ Improves Nitrogen Uptake in Plants, Reducing Losses to Volatilization and Leaching

STUDY FINDINGS:

- Studies have demonstrated that AMP-XC™ significantly increases Nitrogen uptake efficiency in turf.
- Some states and municipalities enforce blackout periods which restrict the amount of Nitrogen that may be applied to the soil throughout the year. AMP-XC™ may still be applied* during this restriction period, helping to maximize nutrient uptake.

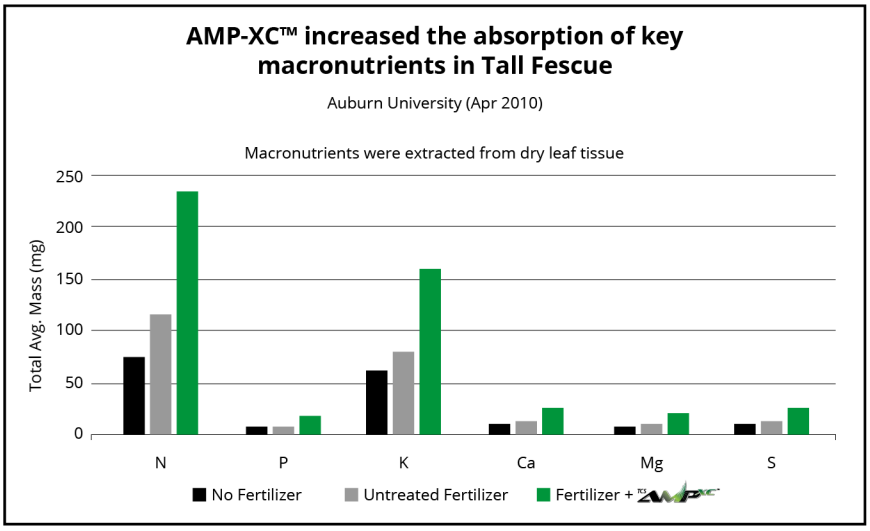
*Check your state and municipality for specific application restrictions.



2. AMP-XC™ Maximizes the Absorption of Macronutrients Already in the Soil

STUDY FINDINGS:

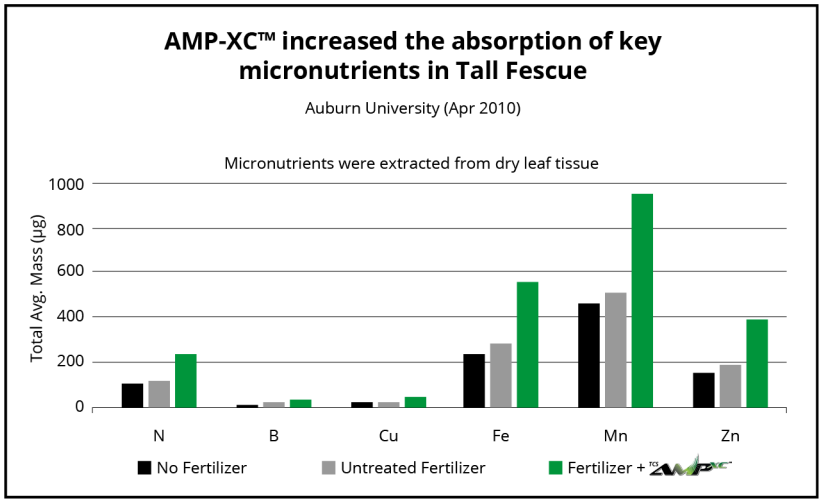
- In all trials, AMP-XC™ approximately doubled the concentration of macronutrients extracted from dry leaf tissue.
- Plant macronutrients are essential for tissue growth, energy transfer, and fluid regulation. Plants suffering from macronutrient deficiencies (N-P-K) often experience stunted growth, curling leaves, and chlorosis (yellowing leaves).



3. AMP-XC™ Maximizes the Absorption of Micronutrients Already in the Soil

STUDY FINDINGS:

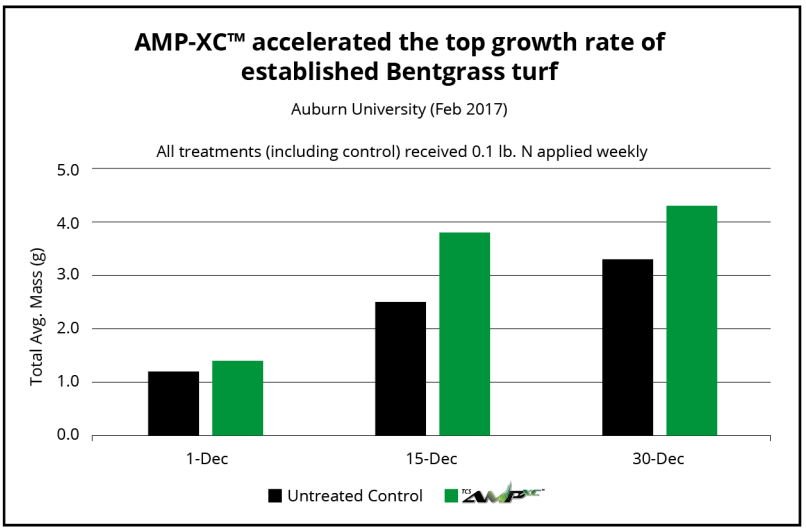
- In all trials, AMP-XC™ approximately doubled the concentration of micronutrients extracted from dry leaf tissue.
- Plant micronutrients are essential for respiration, photosynthesis, and amino acid synthesis. Plants suffering from micronutrient deficiencies often become chlorotic.
- AMP-XC™ helps turf avoid chlorosis by stimulating root systems to mine micronutrients from the soil with maximum efficiency.



4. AMP-XC™ Promotes Healthy Top-Growth in Turf, Not Excessive Top-Growth

STUDY FINDINGS:

- Bentgrass treated with AMP-XC™ produced clippings with more mass than untreated controls.
- Turf with under-developed root systems becomes stressed when fed heavy loads of nitrogen or supplemented with plant growth regulators (PGRs).
- AMP-XC™ promotes the development of healthy root systems which in turn support a healthy rate of accelerated top growth.



5. AMP-XC™ Helps Turf Maintain a Rich, Deep Green Color, Even When Nitrogen Inputs are Significantly Reduced

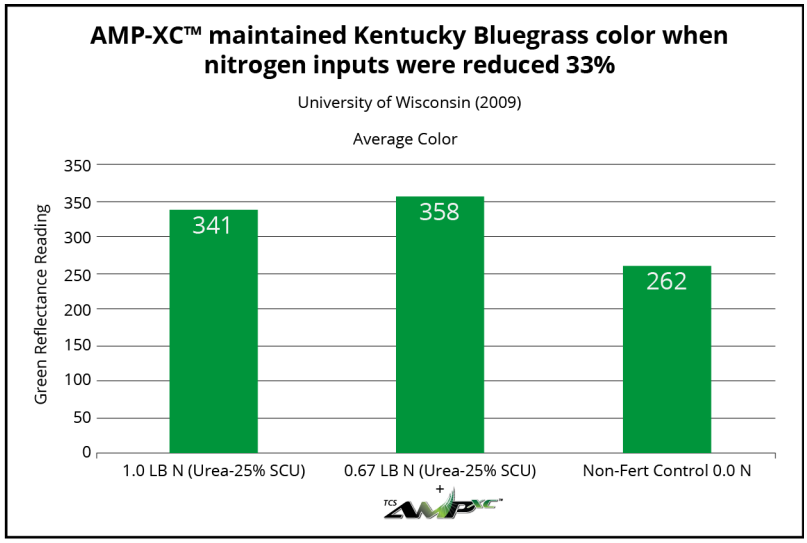
STUDY FINDINGS:

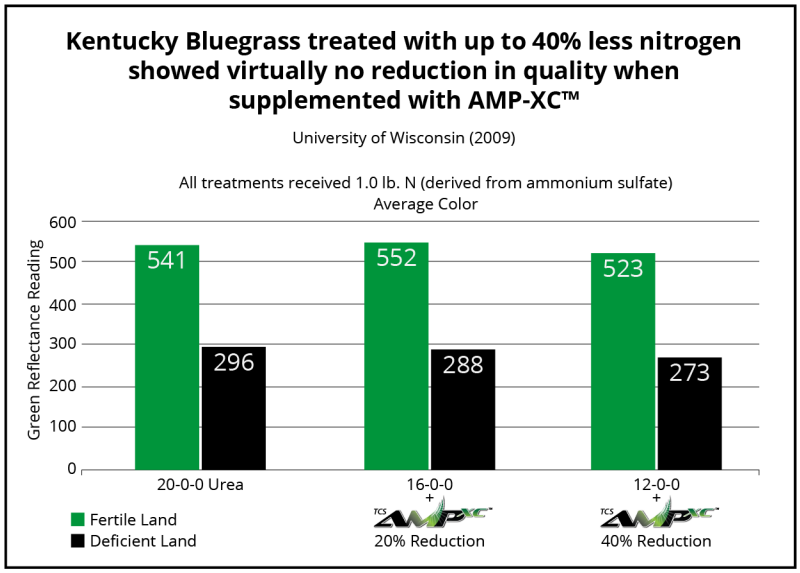
- Turf color in Kentucky Bluegrass was qualitatively assessed by measuring "green reflectance" using a CM1000 meter from Spectrum Technologies.

  Note: Higher values indicate a deeper green color.

- Regardless of the relative nutrient fertility of the soil prior to treatment with fertilizer and AMP-XC™, turf treated with up to 40% less nitrogen in combination with an AMP-XC™ application showed virtually no reduction in color quality. (Both 20% and 40% N-reduction treatments were not statistically significantly different from the 20-0-0 urea control.)
- For golf superintendents, lawn care operators, and homeowners who must comply with nitrogen application restrictions, AMP-XC™ helps turf maintain its vibrant green sheen throughout the growing season by maximizing nitrogen uptake throughout the year.
- When used as recommended, AMP-XC™ with Iron* delivers a steady supply of EDTA iron throughout the growing season. When other lawns begin to yellow with increasing summer heat and drought, turf treated with AMP-XC™ stays greener, longer.

*Statement pertains to AMP-XC™ products that include iron.





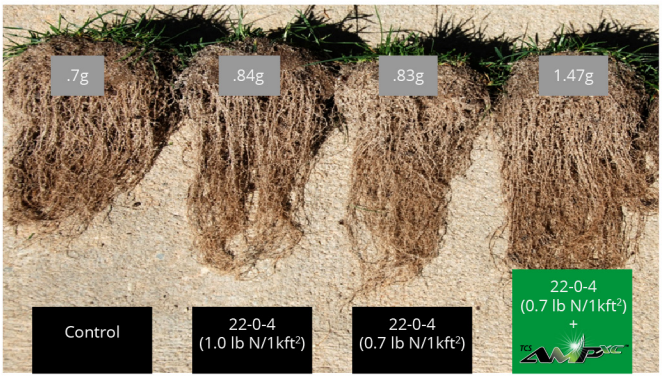
6. AMP-XC™ Promotes Vigorous Root Growth and Healthy Root Systems, Even when Nitrogen Inputs are Significantly Reduced

STUDY FINDINGS:

- Studies have shown that turf treated with AMP-XC™ at only 0.7lbs N per 1000ft^2 develop significantly larger root systems than controls treated with 1.0lbs N per 1000ft^2 alone.
- Healthier, more well-developed root systems help turf defend against numerous biotic and abiotic stresses, including drought and herbivory from common pests.

AMP-XC™ promoted more root mass under 30% less nitrogen than positive and negative controls in Tall Fescue

Auburn University (Feb 2010)



7. AMP-XC™ Promotes More Root Cores and More Lateral Root Hairs when used in Conjunction with an Appropriate Fertilizer Application

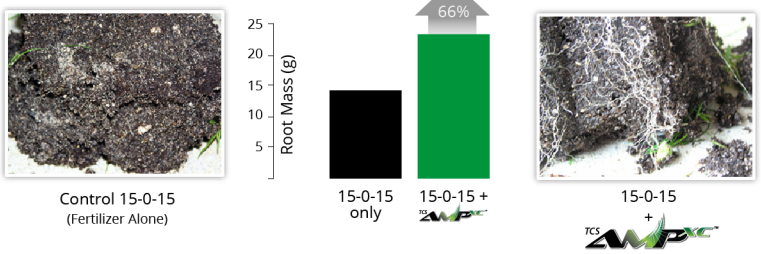
STUDY FINDINGS:

- Studies have shown that turf treated with fertilizer and AMP-XC™ regularly produce root systems with roughly 2/3 more mass than turf treated with fertilizer alone.
- More root cores and lateral root hairs translate to greater access to key micro and macronutrients, and beneficial soil microbes.

When supplemented with fertilizer, AMP-XC™ significantly improved root growth in Ryegrass

Auburn University (April 2003)

Pictures taken 41 days after seeding



8. AMP-XC™ Creates A Nutrient-Rich Growing Environment For Newly Germinating Seeds

STUDY FINDINGS:

- In identical soil media, germinating seeds treated with AMP-XC™ grow more than twice as fast, have larger tillers, develop larger root systems, and produce greener blades than germinating seeds that have received water only.
- Whether starting from seed, or transplanting sod, AMP-XC™ bolsters new turf to take root into its new environment.
- By adding micronutrients, microbial metabolites and humic substances to the soil, turf becomes “AMP’d Up” to thrive in most environments.

AMP-XC™ dramatically increased root and shoot growth Ryegrass in greenhouse slant tube tests

Turfcare Supply Co. (2017)