NuRelease®

The Breakthrough Biocatalyst for Phosphorus...

...and a Whole Lot More

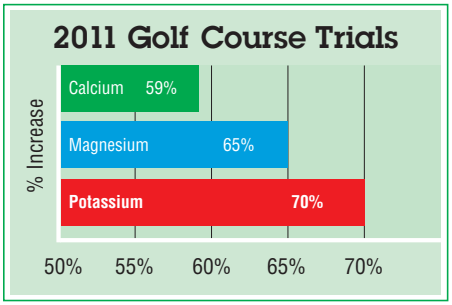
Phosphorus — Essential for energy transformation and conversion of carbohydrate starch to sugar.

Phosphorus absorption through roots declines as root growth declines. NuRelease® makes more Phosphorus and divalent cations, like Ca, Fe, Mg, Mn, and Zn, available to the plant.

NuRelease® is an innovative nutrient release soil treatment and performance enhancing fertilizer additive. It's formulated to maximize nutrient release, bioavailability and uptake efficiency in the rootzone. When added to fertilizers, NuRelease® maintains nutrient solubility, facilitates plant nutrient uptake and increases foliar absorption.

2011 Testing — Excellent Results on Golf Courses in the Midwest

In field tests on several golf courses in summer 2011, application of NuRelease® made Nitrogen, Phosphate, Potassium, Calcium, Magnesium, and Iron more available to turf. At some sites, bioavailable forms of Ca increased by as much as 59%; Mg by 65%; and K by 70%.



14 Reasons to Add NuRelease® to Your Program

1. **It will help you do more with less.** You can apply 20-40% less Phosphorus with no compromise in turf quality, color or density. Better for your budget, better for the environment.
2. **It will help you improve the performance of the rootzones, rhizospheres and soils you manage.** It will help you "mine" the reservoir of unavailable, soil-bound P and make it available for root uptake.
3. **In the process it will also release Phosphorus-bound divalent cations like Ca, Fe, Mg, Mn and Zn**…making them more bioavailable.
4. **It works in cool soils so it will help more desirable turfgrasses like bentgrasses out-compete poa annua in spring and fall when cooler soil temperatures favor poa.** NuRelease® puts bents on a "more even playing field."
5. **Also great for repairing winter damage; and better spring seeding, sodding and sprigging.** Superior to seed and soil inoculants, especially in cooler soils.
6. **It will help you maximize photosynthetic capacity and efficiency, respiratory efficiency, and stress tolerance in the turfgrasses you manage.**
7. **The bottom line is:** NuRelease® will help you get significantly more of the genetic potential out of your turf—and the more intense the stress, the more important that benefit becomes.
8. **It's effective across a broad range of soils and conditions, from soils with either high or low phosphate levels to those with high or low pH's.** NuRelease®'s extraordinary versatility is perhaps its most unique characteristic. It's like a very complete biofertility toolbox.
9. **It's fast-acting.** It starts working as soon as it's applied, or when it's tank-mixed with fertilizers and other foliar materials, or as soon as it's watered in when applied as a soil treatment.
10. **It's compatible with virtually everything you apply.**
11. **NuRelease® is often used as a tank mix additive to improve stability** as well as uptake of nutrients, biostimulants, PGRs and other plant protection materials.
12. **It delivers results that are not only visible but also measurable.** Soil tests comparing nutrient availability between treated and untreated areas consistently show significant nutrient release improvements.
13. **It's sustainable.** It helps you lower phosphorus inputs and reduce risk of groundwater contamination without lowering turf quality.
14. **It's affordable and budget friendly.**

NuRelease's extraordinary versatility is perhaps its most unique characteristic. It's like a very complete biofertility toolbox.

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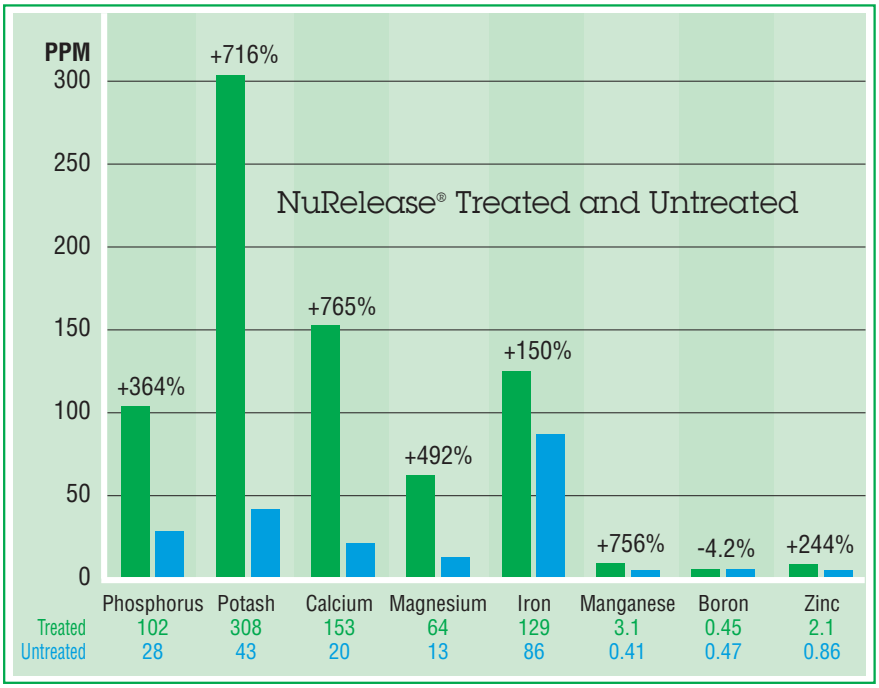
Independent Testing Confirms NuRelease's Efficacy

NuRelease® increases the solubility and availability of soil-bound Phosphorous, Calcium, Magnesium, Zinc, and Iron, and releases bound Sodium.



South Carolina Soil Sample

…and Significant Nutrient Releases

NuRelease® compared to Control	Control	NuRelease®	NuRelease® Difference (%)
P_2O_5 available (lb/A)	21	33	+57
K, H_2O extract, ppm	95	111	+16.8
Ca, H_2O extract, meq/L	468	851	+81.8
Mg, H_2O extract, meq/L	65	133	+104
Zn, DTPA extract, ppm	5.27	7.29	+38
Fe, DTPA extract, ppm	5.87	7.29	+24
P_2O_5, Total (lb/A)	329	329	*
Na, H_2O extract, ppm	87	664	+663

Soil Test Report performed in W. Texas on arid soil with pH between 7.5 and 8.5.

* No Phosphorus added, just made available. See first line.

In other tests, 16 oz NuRelease®/acre outperformed 60 lbs/acre Triple Super Phosphate (TSP)

- Adding 8 oz NuRelease® allowed P inputs to be reduced by 50%. Eight ounces of NuRelease® plus 30 lbs of TSP out-produced 60 lbs. of TSP alone.
- **More For Less!**

How Large an Area Can You Treat With a 5 Gallon Case of NuRelease®?

A 5 gallon case contains 640 ounces.
At a 16 oz per acre rate, 5 gallons will treat:

40 acres once, or
20 acres twice, or
10 acres four times, or
5 acres eight times

For example, if you have 20 acres of fairways and you want them in peak condition for the invitational in June and the club championship in July, a case of NuRelease® would cover your needs for those 2 applications.

A little NuRelease® goes a long way and delivers a host of benefits cost-effectively.

***NuRelease®* is a proprietary formulation of specific, naturally occurring organic acids. Independent research has confirmed that NuRelease® not only makes soil-bound Phosphorus available, but also makes other phosphate-bound essential nutrients like Calcium, Iron, Magnesium, Manganese and Zinc bioavailable.**

Ocean Organics®

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