

DETONATION

Powered by The Sanctuary



*Unlocking Nutrient
Reserves and Exploding
Microbial Life*

Safe Any Time at Any Temperature for Any Application



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Sanctuary Detonation is a liquid microbial probiotic that includes a wide range of beneficial bacteria and fungi. These beneficial probiotics can be used on any soil type, any turf type or ornamental crop. This product reduces nutrient requirements and delivers outstanding results. This product is applied to traditional granular fertilizer, mixed into liquid fertilizer and added to granular calcium products. This product enhances overall nutrient efficiency and uptake.

THE BENEFITS

- **Promotes Nutrient Mineralization**
- **Enhances Soil Microbial Life**
- **Improves Nutrient Overall Efficiencies**



DRY & LIQUID FERTILIZER PRODUCTS

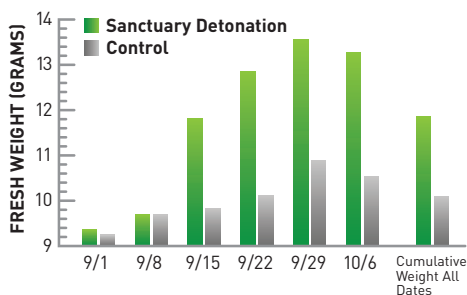
- **All Types of Fertilizer Blends**
- **Phosphate Sources (DAP, MAP, etc)**
- **Calcium Products (Carbonate, Gypsum, etc)**
- **All NPK Liquid Products**



RESEARCH PROTOCOL

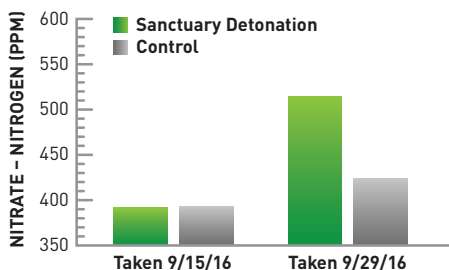
The purpose of this experiment is to quantify the effect of Detonation on the turf density & growth, turf color and the impact on the soil biology. These trial plots were repeated 3 times with a check plot. Per trials, each plot was applied the same 10-2-4 granular fertilizer. For the check plots, the rate was 1.0 lbs of N/M; and the Detonation plots were 0.8 lb of N/M.

BLUEGRASS TURF DENSITY & GROWTH



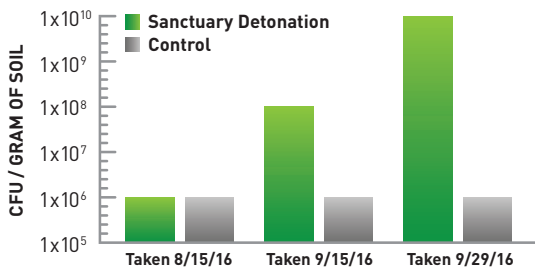
SUMMARY: The Detonation plots had increased growth & density over the period of the trial. This growth translated into 18%+ increased growth and density using 20% less fertilizer product. This was compared to the check plot.

BLUEGRASS COLOR & NUTRIENT UPTAKE



SUMMARY: The Detonation Tissue Analysis indicates a 32% increase in nutrient uptake. This was based on tissue nitrogen levels in the shoot. This nitrogen level translated to better overall turf color using 20% less fertilizer.

MICROBIAL POPULATION COUNTS



SUMMARY: The Detonation plots increased microbial levels by 10^4 or 4 logs. This is an increase of 10,000 times. Each soil microbe is a mini bag of fertilizer. As microbial levels increase, nutrient reserves increase promoting soil health and turf quality.

3RD PARTY R&D STUDY
Superintendent, Catiague Park • Hicksville, NY

CONCLUSION

The Sanctuary Detonation research shows the benefits of using Sanctuary Detonation to enhance traditional chemical fertilizer performance. These benefits include turf density & growth, turf color and increased nutrient reserves. As environmental regulations continue to place restriction on the amount and timing of fertilizer usage, the Sanctuary Detonation provides a means to reduce fertilizer amounts without jeopardizing the turf quality and soil health.

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ALSO CONTAINS NON-PLANT FOOD INGREDIENTS

ACTIVE INGREDIENTS

Paenibacillus polymyxa 100,000,000 CFU per ml
 Bacillus subtilis 75,000,000 cfu per ml
 Bacillus pumilus 75,000,000 cfu per ml
 Bacillus licheniformis 75,000,000 cfu per ml
 Bacillus amyloliquefaciens 75,000,000 cfu per ml
 Bacillus megaterium 75,000,000 cfu per ml

Pseudomonas putida 50,000,000 cfu per ml
 Pseudomonas fluorescens 50,000,000 cfu per ml
 Pseudomonas aureofaciens 50,000,000 cfu per ml
 Azospirillum amazonense 50,000,000 cfu per ml
 Azospirillum lipoferum 50,000,000 cfu per ml

99.5%.....Inert Ingredients
 (Exudates, Metabolites & Polysaccharides)

APPLICATION RATES

APPLICATION	AMOUNT	COVERAGE
Dry Fertilizer Impregnation	2 - 4 Quarts	Ton
Tank Mixing With Liquid Fertilizers	2 - 4 Quarts	Acre
Turf Starter - Stand Alone	1 - 2 Quarts	Acre
Vegetable Gardens	1.5 - 3.0 oz	1000 sq ft
Ornamental Installation - Transplant	1 - 2 oz	Gal Water
Ornamental Maintenance	1 - 2 Quarts	Acre
Ornamental Plants	2 - 4 Quarts	1000 sq ft
Tropical Plants	2.0 - 3.0 oz	1000 sq ft
Flower Gardens	1.5 - 3.0 oz	1000 sq ft
Bulbs	1 oz in 1 gal water	16 bulbs
Greens & Tees	4 - 8 Quarts	Acre
Fairways & Sports Turf	3 - 6 Quarts	Acre
Turf	2.0 - 4.0 oz	1000 sq ft
Greenhouse Injector @ 1 : 100	2 Quarts	10,000 sq ft
Irrigation Injection	2 - 4 Quarts	Acre

Utilize a sufficient volume of water to achieve desired coverage. Do not apply near water, storm drains, or drainage ditches. Do not apply if heavy rains are expected. Apply this product only to your growing area.



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