

“If you are soil testing, it should be known that the amount of P or K extracted by the soil test is only a small fraction of the total amount of each nutrient in the soil.”

Kaiser, D. (2022). 5 Things to Know About Removal-Based P+K Strategies. *University of Minnesota*.
blog-crop-news.extension.umn.edu/2022/11/5-things-to-know-about-removal-based-p.html

CystNema Plus

CystNema Plus contains dormant organisms that become active when applied as a soil conditioner, designed to tackle soil-related issues through powerful strains of Trichoderma species. This innovative formula helps create a supportive root environment, improves soil health, and promotes sustainable crop productivity. With three targeted modes of action, CystNema Plus actively occupies, protects and controls the plant's root system, reducing the need for chemical inputs.

- ✓ Stimulates beneficial biological growth around the plant's root zone
- ✓ Expands and strengthens root systems
- ✓ Suppresses common health problems
- ✓ Increases plant resistance to stress

NutriRelease Plus

NutriRelease Plus is a powerful live biological used as a soil conditioner and water stress reliever, designed with a specialized blend of Bacillus species to improve soil fertility and plant resilience. This unique formulation enhances Phosphorus availability, supports root expansion, and promotes sustainable nutrient release from organic matter, even in high-pH soils. By improving root health and nutrient accessibility, NutriRelease Plus optimizes soil and plant performance for more robust growth.

- ✓ Solubilizes Phosphorus and releases nutrients from organic matter
- ✓ Boosts root strength and overall plant growth
- ✓ Mitigates water stress impacts on crops
- ✓ Ideal for high-pH soils

12% Humic Acid

Boost soil health and fertilizer efficiency with 12% Humic Acid that feeds the live organisms. This advanced blend increases nutrient availability and plant uptake, supports robust soil biochemistry, and improves overall crop performance. Its compatibility with a range of fertilizers—including polyphosphate, orthophosphate, and UAN—ensures seamless integration into various irrigation system.

- ✓ Enhances nutrient availability and plant uptake
- ✓ Compatible with polyphosphate, orthophosphate, UAN, and most liquid fertilizers
- ✓ Suitable for various irrigation systems
- ✓ Improves soil profile and biological activity

HOW TO APPLY ON CORN & SOYBEANS **USE ALL THREE PRODUCTS TOGETHER FOR OPTIMAL RESULTS**

APPLYING CYSTNEMA PLUS

APPLICATION TIMING	RECOMMENDED RATE
Pre-Emergence (Recommended)	3 oz/acre
Early Post-Emergence	3 oz/acre

APPLYING NUTRIRELEASE PLUS

APPLICATION TIMING	RECOMMENDED RATE
Pre-Emergence (Recommended)	3 oz/acre
Early Post-Emergence	3 oz/acre

APPLYING 12% HUMIC ACID

APPLICATION TIMING	RECOMMENDED RATE
Pre-Emergence (Recommended)	64 oz/acre
Early Post-Emergence	64 oz/acre

**DO NOT mix with Glyphosate (Roundup).*

***DO NOT let these products freeze. Store in a cool, dry place out of direct sunlight. Jar test before tank mixing.*

VALIDATING PERFORMANCE

2024 CORN TRIAL

In 2024 near Buffalo Center, IA, we applied CystNema Plus, NutriRelease Plus, and 12% Humic Acid to eight rows of corn with pre-emergence chemicals. Compared to the control strip, these treated rows showed an impressive yield increase of **+16.37 bushels per acre**, translating to an **additional profit of +\$70.55 per acre**.

For full trial details, please refer to the table below:

Planted: 5/19/24 Harvested: 10/14/24 Location: Buffalo Center, Iowa					
APPLICATION	MOISTURE	FINAL YIELD	PRODUCT PRICE PER ACRE	DRYING COSTS PER ACRE <small>(Moisture % -15) x 0.03 x Yield</small>	NET RETURN <small>(Yield x \$4.50/bu - Cost of Product - Drying Cost - Seed Cost \$160/Bag)</small>
CYSTNEMA PLUS + NUTRIRELEASE PLUS + 12% HUMIC ACID	21.4%	222.19	\$15.00	\$42.33	\$887.96
CONTROL	21.35%	205.82	\$0.00	\$39.21	\$817.41

PRIOR YEAR TRIALS

In side-by-side trials done on corn and soybean fields, we have seen increases in bushels per acre across the board.

CORN TRIALS		
APPLICATION	TRIAL 1 <small>(Tiptonka, Iowa)</small>	TRIAL 2 <small>(Bancroft, Iowa)</small>
PRE-APPLICATION OF CYSTNEMA PLUS + NUTRIRELEASE PLUS	214	230
CONTROL	198	217

SOYBEAN TRIALS		
APPLICATION	TRIAL 1 <small>(Tiptonka, Iowa)</small>	TRIAL 2 <small>(Bancroft, Iowa)</small>
PRE-APPLICATION OF CYSTNEMA PLUS + NUTRIRELEASE PLUS	72	78
CONTROL	54	72