# Improve nearly any fertilizer for less than 1¢ per gallon.

# WHAT IS PHOSZYME?

PhosZyme is a performance-enhancing biostimulant containing mannanase and phosphatase enzymes with monoammonium phosphate.

Mannanase enhances water activity and uptake. As the plant rhizosphere naturally exudes starches to drive water into the xylem, mannanase breaks down these starches, increasing the osmotic potential and enhancing water uptake. As more sugars are released back to the plant, this increases root growth and boosts microbial activity.

**Phosphatase frees up phosphorus** that is bound to cations in the substrate. When applied to the substrate, it weakens the bonds between phosphorus and its companion ions, rendering previously inaccessible fertilizer immediately plant bio-available. **This increases uptake and availability of phosphorus.** 

Targeted application of monoammonium phosphate **boosts amino acids** within tissues and **increases growth rates.** Nitrogen is essential for production of amino acids and ammonium delivers the most active form of nitrogen while optimizing for amino acid production. Elevated levels of amino acids **enhance yield, potency, and aromatic attributes.** In combination, nitrogen and amino acids lead to **increased growth rates**.

# **USAGE INSTRUCTIONS**



#### STOCK CONCENTRATE

- PhosZyme can be injected alone or added to Front Row Part B and many other compatible fertilizer concentrates (see Compatibility Chart).
- When injected alone, use 160 grams per gallon injected at 0.25% rate.
- When added to other fertilizer stock concentrates, use 80 grams per gallon (assumes ~0.55% injection rate).
- For best results make stock concentrate with source water with less than 40 ppm.



#### **DIRECT TO RESERVOIR**

- Add PhosZyme at 0.4 grams per gallon after Front Row Part B.
- PhosZyme can be used to improve nearly all fertilizers and nutrient programs.
- Prior to adding PhosZyme, add all products containing ammonium, urea, copper, silicates, and/or oxidizers and allow ample mixing time.
- Concentrated pH adjusters should be diluted prior to use with PhosZyme.

Usage Type/Injector	Direct to Res (g/gal)	Dedicated Injector 0.03% to 2%	W/ Part B Injector 0.2-2%
Stock Concentrate (g/gal)		160	80
Usage Rate	0.4	0.25%	0.50%
EC Contributed in feed	0.09	0.09	0.09

- PhosZyme rate recommendations add about 0.10 EC to ready-to-use (RTU) solutions.
  - PhosZyme contributes 0.22 EC per gram per gallon.
- Whether RTU or stock concentrate, it is recommended source water contains 1 3 ppm Chlorine from Calcium Hypochlorite.

# **PHOSZYME**

## STOCK CONCENTRATE COMPATIBILITY

PhosZyme can be combined with the following products in concentrate, without the need of an additional injector.

- (X) Advanced Nutrients Sensi Bloom A
- Advanced Nutrients Sensi Bloom B
- X Advanced Nutrients Sensi Grow A
- Advanced Nutrients Sensi Grow B
- (X) Ambrosia Cropz Vegetative
- ( Ambrosia Cropz Cal
- X Ambrosia Cropz Fruit & Flower
- ( ) Ambrosia Cropz Mag

- ( Athena Bloom
- (X) Athena Core
- ( Athena Grow
- (X) Front Row Part A
- (/) Front Row Part B
- ( Front Row Bloom
- ( ) Gen Hydro Flora Pro Grow
- ( ) Gen Hydro Flora Pro Bloom

- (X) Gen Hydro Flora Pro Cal+Micro
- (/) Haifa MKP 0-52-34
- ✓ HGV (All Prodcuts)
- ✓ Jack's 15-0-0
- Morr JR CropTech 7-14-23
- Morr JR CropTech 0-21-26
- Morr JR CropTech 9-17-28
- ( Yara Calcium Nitrate

#### **DIRECT TO RESERVOIR**



# WATER Fill RTU

Fill RTU batch tank to final target volume



# 2

# ADD FRONT ROW

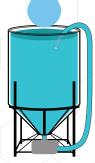
while agitating. Wait 3-5 minutes between each component addition





#### MIX

Continue agitation, adjust pH and check solution after 5 - 10 minutes

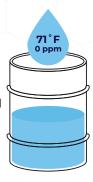


# **STOCK CONCENTRATE**



## ADD R.O. WATER

Fill stock tank to 50% of final volume





# 4

# ADD FRONT ROW & MIX

Start agitation, add total LBS/GAL for final volume, mix for 5 minutes



3

#### FILL

Continue agitation while filling to final volume, mix for 10 more minutes



#### ORDER OF PRODUCTS



PART A

PART B

3 PHOSZYME





Use only **ONE** injector - combine Part B and PhosZyme in one stock concentrate.

\* Only use Front Row Si in irrigation solution if used 100% with 48-hours.

\*\* Clean Up is intended for use with RO water only.