



# BATTALION™

8-2-1; 0.04% B, 0.1% Cu, 0.1% Mn, 0.1% Mo, 0.1% Zn

## PRODUCT DESCRIPTION

Hydro Bullet™ Battalion™ is an amino acid-based liquid fertilizer that reduces the negative effects of abiotic stress. Each stress or delay in plant growth can negatively affect crop yield and quality; Battalion is a research-proven tool to combat these stresses. Containing key amino acids and a complete nutritional package, Battalion promotes root growth, photosynthesis and water flow during stress.

Battalion has been successfully used on millions of acres during the past 10 years and is backed by field data across two continents.

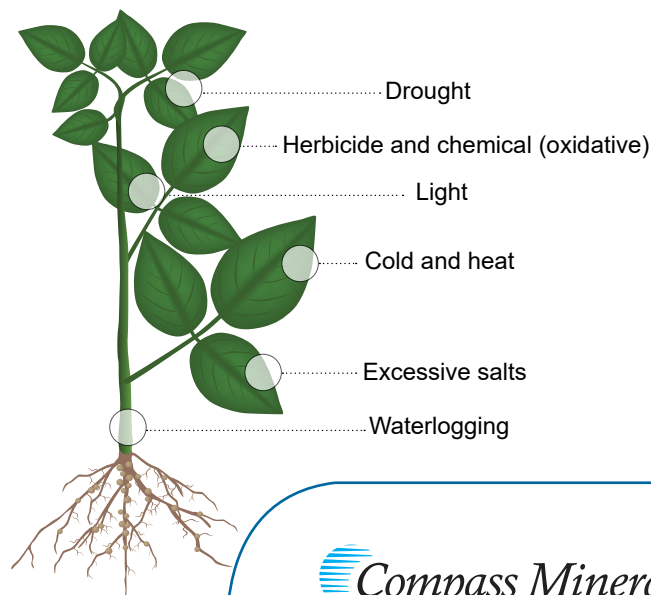
Guaranteed Analysis	
Total Nitrogen (N)	8.00%
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	2.00%
Soluble Potash (K <sub>2</sub> O)	1.00%
Boron (B)	0.04%
Copper (Cu)	0.10%
Manganese (Mn)	0.10%
Molybdenum (Mo)	0.10%
Zinc (Zn)	0.10%

Derived from: Urea, Phosphoric Acid, Potassium Chloride, Boric Acid, Copper Sulfate, Manganese Sulfate, Sodium Molybdate, Zinc Sulfate  
Also contains non-plant food ingredients: Amino Acids (listed on back page)

## PRODUCT BENEFITS

- Reduces the negative effects of abiotic stress
- Directly improves crop growth, photosynthesis and nitrogen utilization
- Compatible with most crop protection and fertilizer chemistries
- Unique nutritional package acts as a catalyst to the plant's defense and growth systems

**Battalion is designed to reduce the negative effects of the following stresses:**





# Hydro Bullet™

## BATTALION™

Application Rates	
All non-tree crops	Apply foliar at 1-2 pt/ac during vegetative or reproductive stages to manage stress and improve growth
All tree crops	Apply foliar at 1-4 pt/ac and/or through fertigation at 2-4 qt/ac
Soil application on all crops	Apply in-furrow at 2 pt/ac and through fertigation at 2-4 qt/ac

Physical and Chemical Parameters	
SPECIFICATION	AMOUNT
Density	10.2 lb/gal
pH	4.75
Appearance	Brown liquid solution

Note: Shake well and agitate when adding to the spray tank.

TYPICAL AMINO ACID PROFILE (all are in the L-form, the form assimilated by plants)		
Amino Acid	Content (ppm)	Select Functions
Glutamic Acid	42,200	Anti-stress, growth stimulation, chlorophyll development <sup>(1, 2, 3)</sup>
Aspartic Acid	5,500	Fruit and grain quality <sup>(4)</sup>
Threonine	1,100	Stress signal molecule <sup>(5)</sup>
Serine	1,600	Cell division <sup>(6)</sup>
Proline	1,400	Anti-stress, pollen fertility <sup>(2, 7)</sup>
Glycine	2,600	Anti-stress <sup>(8)</sup>
Alanine	2,900	Cold weather resistance <sup>(9)</sup>
Cystine	300	Chelating agent <sup>(10)</sup>
Valine	2,400	Citric acid cycle for energy <sup>(11)</sup>
Methionine	800	Precursor to growth factors <sup>(12)</sup>
Isoleucine	1,800	Protein synthesis <sup>(13)</sup>
Tyrosine	1,200	Lignin formation <sup>(14)</sup>
Lysine	2,200	Protein synthesis, growth <sup>(15)</sup>
Histidine	1,100	Seed development <sup>(16)</sup>
Arginine	2,200	Cold weather resistance, cell division <sup>(9)</sup>
Tryptophan	500	Hormone precursor, cell division <sup>(11)</sup>



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Plant Nutrition