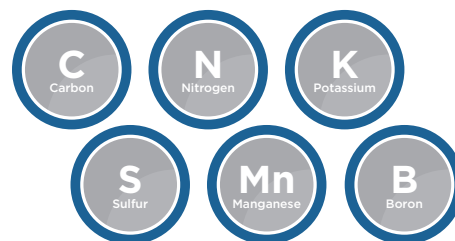


# UltraMate<sup>®</sup> MnB

UltraMate MnB is a sulfonated potassium humate liquid with the additional benefits of manganese and boron. It completely mixes when added directly to liquid fertilizer, micronutrient, or pesticide formulations over a wide range of pH values. UltraMate MnB allows plants to utilize N, K, Mn, B, and other micronutrients more efficiently, reducing leaching and improving soil structure.



## FEATURES & BENEFITS

- Improves nitrogen availability, reducing volatility while increasing utilization of nutrients it is tank-mixed with
- Promotes phosphorus utilization and decreases leaching
- Provides manganese and boron to growing plants
- Provides up-front availability of humic and fulvic acids

## FREQUENTLY ASKED QUESTIONS

**Q: On what crops can UltraMate MnB liquid humate be used?**

A: UltraMate MnB liquid humate can be applied to all crops including row crops, fruits, vegetables, trees, vines, flowers, ornamentals, turf (including lawns, sod farms, commercial properties, athletic fields, golf greens, tees, and fairways), greenhouse plants, and other indoor crops.

**Q: What is the analysis of UltraMate MnB?**

A: The analysis of UltraMate MnB is 1-0-2 + 1.0 S, 2.0 Mn, and 0.5 B containing 12% humic acid. The humic acid is a sulfonated potassium humate derived from Leonardite.

**Q: When should UltraMate MnB liquid humate be applied?**

A: UltraMate MnB is recommended for sidedress application, and may also be used with 2x2 placed starter fertilizer or with weed and feed applications.

**Q: What is the role of manganese and boron in UltraMate MnB?**

A: Manganese and boron are essential micronutrients responsible for a variety of functions within the plant. Manganese aids in chlorophyll synthesis, a vital component of photosynthesis. Boron supports reproductive growth and plays a key role in flowering, pollination, and growth in corn tassels and ears. Boron is immobile in plants, meaning small applications throughout the season are most beneficial to the crop.

**Q: What is the role of carbon in UltraMate MnB?**

A: Carbon is an essential element that stimulates beneficial microbes in soils. As a liquid humic, this solution improves the efficiency of applied macro- and micronutrients in the plant, and its humic acid can help reduce soil salinity.

**Q: How does UltraMate MnB liquid humate differ from other humic acid products?**

A: UltraMate MnB incorporates the benefits of high-quality humic acid, manganese, and boron. The sulfonation of the humic allows for easy tank mixing, increased activity in low pH soils, and stability in storage when mixed. UltraMate MnB also delivers manganese and boron, which are essential for many critical plant functions.

**Q: How does UltraMate MnB help deduce nitrogen loss from volatilization?**

A: Volatilization is the loss of nitrogen to the atmosphere as ammonia gas (NH<sub>3</sub>). It occurs when urea nitrogen is converted to ammonia by the urease enzyme. UltraMate MnB sequesters the metal nickel, a key component needed by the urease enzyme in the conversion process.

### GUARANTEED ANALYSIS

Nitrogen (N).....	1.0%
1.0%...Other Soluble Nitrogen	
Soluble Potash (K <sub>2</sub> O).....	2.0%
Sulfur (S) .....	1.0%
1.0%...Water Soluble Sulfur	
Manganese (Mn).....	2.0%
Boron (B).....	0.5%

Derived from: boric acid, manganese EDTA, and potassium humate

### NON-PLANT FOOD INGREDIENTS

Active Ingredients	
Humic Acid* .....	12.0%
Total Other Ingredients.....	88.0%

\*Derived from Leonardite

### PHYSICAL PROPERTIES

pH.....	7.5
Specific Gravity.....	1.214 @ 68°F
Density.....	10.1 lbs/gallon
Salt Out.....	29°F

### APPLICATION

Crop	Application	Use Rate (per acre)
Row Crops	Pre-plant broadcast, 2x2, sidedress, weed & feed	1-3 gallons

UltraMate MnB application rates and frequency are dependent on soil and climate conditions. The typical application rates for corn are:

- **2x2 placed starter:** 10-15 gallons of UAN/10-34-0/ATS with 1.0-1.5 gallons UltraMate MnB/acre
- **Sidedress:** 20-50 gallons of UAN with 1.0-3.0 gallons UltraMate MnB/acre
- **Weed & Feed application:** UAN with 1.0-2.0 gallons UltraMate MnB/acre
- **Wheat topdress application:** 1-2 gal/ac added to the UAN solution



#### FOR MORE INFORMATION

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