

# MICROSTART

## Nutrition

 **Timing:** Soil

 **Nutrient Type:** Micronutrients

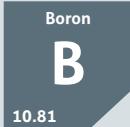
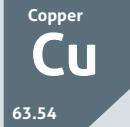
 **Formulation:** Granular



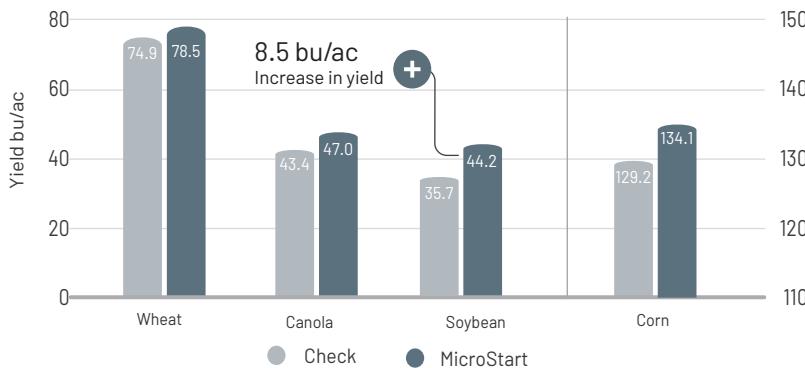
## The MicroStart Advantage - Proactively Address Micronutrient Deficiencies

The MicroStart line is a premium soil applied granular fertilizer, containing either a single or a combination of multiple micronutrients designed for a wide range of crops. Zinc, Boron, Copper and Manganese are the 4 micronutrients targeted within the MicroStart product line to feed the crop from planting to harvest.

- **Balanced Nutrient Formulation** designed with your crop in mind, delivering the most critical micronutrients to meet the crops requirements.
- **Matches particle size and bulk density** of most dry fertilizers for more uniform distribution and no blend segregation.
- **Available throughout the growing season** - with the formulation containing a balance of sulphate and oxy sulphate sources of zinc and copper.
- **Seedling safe** - the boron source (Ulexite) provides a balance between seedling safety combined with both immediate and season long nutrient supply.

Nutrient	Role of Nutrient	Deficiency Symptom
<b>Zinc</b>  65.39	<ul style="list-style-type: none"><li>• Aids plant growth hormones and enzyme systems.</li><li>• Helps in pollination and seed formation.</li><li>• Necessary for protein synthesis and membrane function.</li><li>• Influences plant hormone proteins, for example, auxin development, especially IAA.</li><li>• Active in chlorophyll synthesis and manufacturing of carbohydrates.</li><li>• Causes healthy root growth, leading to enhanced grain yield.</li><li>• Important for cellular defense systems against toxic free radicals (SOD).</li></ul>	
<b>Boron</b>  10.81	<ul style="list-style-type: none"><li>• Essential for elongation of pollen tubes.</li><li>• Regulates metabolism of carbohydrates.</li><li>• Maintains cell wall integrity of roots to reduce beneficial root exudates.</li><li>• Aids production of sugar and carbohydrates, and is essential for seed and fruit development.</li><li>• Enhances uptake of Calcium, Magnesium, and Potassium; enables sugar translocation.</li></ul>	
<b>Copper</b>  63.54	<ul style="list-style-type: none"><li>• Stimulates protein formulation.</li><li>• Enhances Nitrogen utilization.</li><li>• Activates several enzymes.</li><li>• Copper assists in the binding (detoxification) of free oxygen radicals.</li><li>• Important for lignification of cell walls.</li><li>• Important for rhizobia production associated with legumes.</li></ul>	
<b>Manganese</b>  54.934	<ul style="list-style-type: none"><li>• Regulates the splitting of water molecules during photosynthesis.</li><li>• Accelerates germination and early season seed development.</li><li>• Activates several enzymes.</li><li>• Increases the availability of Phosphorus and Calcium.</li><li>• Aids in chlorophyll synthesis.</li><li>• Heightens the concentration of valuable ingredients such as citric acid and vitamin C.</li><li>• Similar to Copper and Zinc, Manganese is important for the mobilization of free oxygen radicals.</li></ul>	

## Proven Agronomic Performance



The application of MicroStart showed an average yield increase of 3.6 bu/ac in both Wheat and Canola, a 8.5 bu/ac yield increase in Soybean, and a 4.9 bu/ac yield increase in Corn.

*MicroStart Complete applied at 10 lb of product / acre.  
MicroStart Complete applied in furrow.*

**Soil applied micronutrients are the optimal way to start your crop nutrition program built from strong soil diagnostic data. When used in conjunction with timely in-crop nutrition applications can drive the plant to ensure the crop meets its genetic potential.**

## Product Recommendation

- Apply MicroStart Complete either in furrow or as a side band at the time of planting.
- It can be blended with NPK fertilizers or applied alone.
- It is not recommended to broadcast the product.
- Please conduct a soil sample to determine if your soil will be responsive to a granular micronutrient application.
- To view the SDS and product label, please visit [atpag.com](http://atpag.com).

Product	Analysis	Lbs of Nutrient/Acre	Application rate (lbs/ac)	SGN	Bulk Density	Salt Index (Estimated)
Granular Boron 10%	10B	1-2	10-20	280	56-60	4
Granular Boron 15%	15B	1-2	7-13	280	56-60	4
Zinc Sulphate	35.5Zn-17.5S	1-2	3-6	275	95-100	80
Manganese Sulphate	32Mn-15S	1-2	3-6	275	80-85	15
Copper 12	12Cu-6Zn	1-2	17-33	250-260	75	20
EZ20	20Zn-14S	1-2	5-10	250-260	75	20
Zinc 20%	20Zn-3S	1-2	5-10	250-260	75	20

\* Applied to Zinc



At ATP, we believe a proactive, science-based approach to restore the balance between plant and soil health is the single most effective way to deliver the genetic potential of the crop. We challenge the status quo by utilizing agtech to monitor and drive productivity.

[info@atpag.com](mailto:info@atpag.com) | 1.877.538.5511 | [www.atpag.com](http://www.atpag.com)