

Biostimulants

FEATURES & BENEFITS

- 1.** Biostimulant products are substances that speed up natural plant physiological processes and biological processes in soils and growing plants. Often soil, weather and water conditions inhibit plant growth, reducing healthy growth and successful harvest. Biostimulants are designed to help plants overcome some of these natural limitations, releasing them to achieve their full potential... A successful harvest.
- 2.** Biostimulant formulas may include amino acids, enzymes, organic complexing agents and/or natural plant extracts, including:
 - a) amino acids - nitrogenous organic acid which is the building block of all protein matter.
 - b) protein - important complex organic compound made of long chain amino acids. Protein acts as the structure and connective tissue for cells.
 - c) enzyme - a type of protein which acts as a catalyst for reactions that occur within the cells.
 - d) organic complexing agent - natural compounds which function similar to chelating agents, binding metal nutrient ions in water solutions.
 - e) natural plant extracts - substances obtained from plants through one or more processes such as chemical, biological or mechanical.
- 3.** Biostimulants are very effective in permeating the leaf, increasing nutrient uptake and foliar penetration. When combined with major or minor elements, these formulations can deliver a higher degree of plant nutrition.
- 4.** Biostimulants are produced by the development of bacterial cultures that produce specific enzymes and amino acids which in turn, stimulate the bio-systems of plants.
- 5.** Specific bacterial strains are grown through a process of fermentation. The cell walls then rupture and release the biostimulants into a concentrated heavy liquid solution, much like the Bt's. To this solution, natural plant extracts or nutrients may be added for specific purpose or benefit.



**Helping Crops Reach
THEIR FULL POTENTIAL**

X-Tra Line

**5X5 X-TRA • ALL-GRO X-TRA • BIO-ZINC BORON X-TRA • CAL-B X-TRA • CALCIUM X-TRA • COPPER X-TRA • CROP MIX X-TRA
CROP MIX X-TRA • IRON X-TRA • MG X-TRA • MN X-TRA • MN-ZN X-TRA • ZINC X-TRA**

Rush Line

CAL RUSH • IRON RUSH • ZINC RUSH