

### Environmental Stress Benefits

<b>ACC</b> BL	Support abiotic stress tolerance by degrading ACC, a precursor to ethylene formation
<b>Acetoin</b> BS, BA	Secretes acetoin which triggers induced systemic resistance (ISR), mediating stress
<b>Auxin</b> BL	Critical for cell division, plant growth and enhance plant's tolerance to abiotic stress
<b>Catalase</b> BL	An antioxidant enzyme that protects plant cells from abiotic stress damage
<b>Cytokinin</b> AB	Secretes cytokinin, a biochemical messenger supporting plants under stress
<b>Exopolysaccharides</b> BS, BL	Secretes EPS which forms a biofilm layer on roots mitigating damage from abiotic stress
<b>Gibberellic Acid</b> AB	Secretes GA which plays a central role in the plant's response to abiotic stress
<b>IAA</b> PP, RP, AB	Secretes IAA, a common auxin that enables cell division and movement of photosynthates
<b>PAL</b> BS, BA	Secretes PAL, a key enzyme that supports systemic resistance against abiotic stress

Microbial Species	Abbreviation	Microbial Species	Abbreviation
Azospirillum brasilense	AB	Cellulomonas cellasea	CC
Bacillus amyloliquefaciens	BA	Pseudomonas fluorescens	PF
Bacillus licheniformis	BL	Pseudomonas patida	PP
Bacillus subtilis	BS	Rhodopseudomonas palustris	RP



### Plant Nutrition Benefits

<b>Phosphorus</b> BS, BA, AB, RP, PF	Able to solubilize and make plant available insoluble forms of phosphate
<b>Nitrogen</b> AB, RP	Capable of fixing atmospheric nitrogen (N <sub>2</sub> ) into biologically useable and available ammonia
<b>Potassium</b> PP	Able to solubilize insoluble forms of potassium
<b>Zinc</b> PF	Able to solubilize insoluble forms of zinc
<b>Sulfur</b> BS	Able to convert (oxidize) insoluble sulfur into plant available sulfates
<b>Iron</b> BS, AB, PF	Able to convert insoluble forms of iron into iron-chelating siderophore compounds

### Biodegradation Benefits

<b>Amylase</b> BS, BA, BL	Secretes amylase, an enzyme that hydrolyzes starch and breaks it down into smaller sugars
<b>Cellulase</b> BS, BA, CC	Secretes cellulase, an enzyme that breaks down cellulose into its monosaccharide units
<b>Glucanase</b> BS, BA	Secretes glucanase, an enzyme that breaks down large polysaccharides like glucans
<b>Laccase</b> BS, BA	An enzyme that biodegrades lignin and can oxidize and degrade aromatic pollutants
<b>Lipase</b> BS, RP	Secretes lipase to help support the break down of fats, oils, and lipids
<b>Protease</b> BS, BA, BL	Secretes protease, an enzymes that break down proteins down into amino acids
<b>Urease</b> BA	Secretes urease, enzyme capable of breaking down urea into ammonia and CO <sub>2</sub>
<b>Xylanase</b> BS, BA	Secretes xylanase, an enzyme that breaks down hemicellulose in plant cell walls

## CanGrow UnLeash® - Biological Fertilizer & Residue Manager/Recycler

### Provide Maximum Biological Activity

CanGrow UnLeash® provides the best bio-fertility and residue manager all in one on the market. CanGrow UnLeash® offers the convenience of applying with an existing herbicide or fungicide pass and is compatible with most products.

The soil penetrating technologies provide sustained biostimulant capabilities and release carbon that feeds the entire microbial population. The diversity and amount of soil microbes you have correlates to the performance of your soil and your crop.

These microbes support:

- Nitrogen fixing
- Phosphorus solubilization
- Sulfur, Zinc, Iron, and other nutrient increased availability
- Production of environmental stress reducing factors such as catalase, EPS, and PAL
- Production of biodegradable enzymes such as cellulase, laccase, urease, and xylanase



UnLeash™

Untreated

### Application Rates

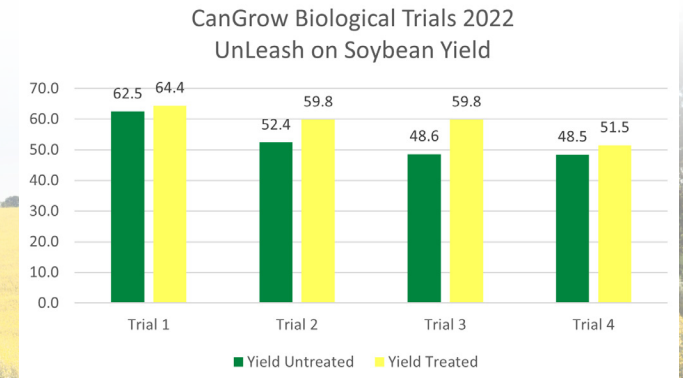
**Broadcast Application:** 1 L (34 oz) per acre

**Side Band:** 1 L (34 oz) per acre

CanGrow UnLeash® can be soil applied and added with crop protection products.

### 2022 Ontario Field Trials

Multiple trials were conducted within Ontario on soybeans with CanGrow UnLeash®. These trials consisted of 4 different growers on 12 different farms. The trials resulted in an average yield increase of 2.1 bushels/acre and an average return of investment (ROI) of \$19.42/acre.



# #BetterBiology