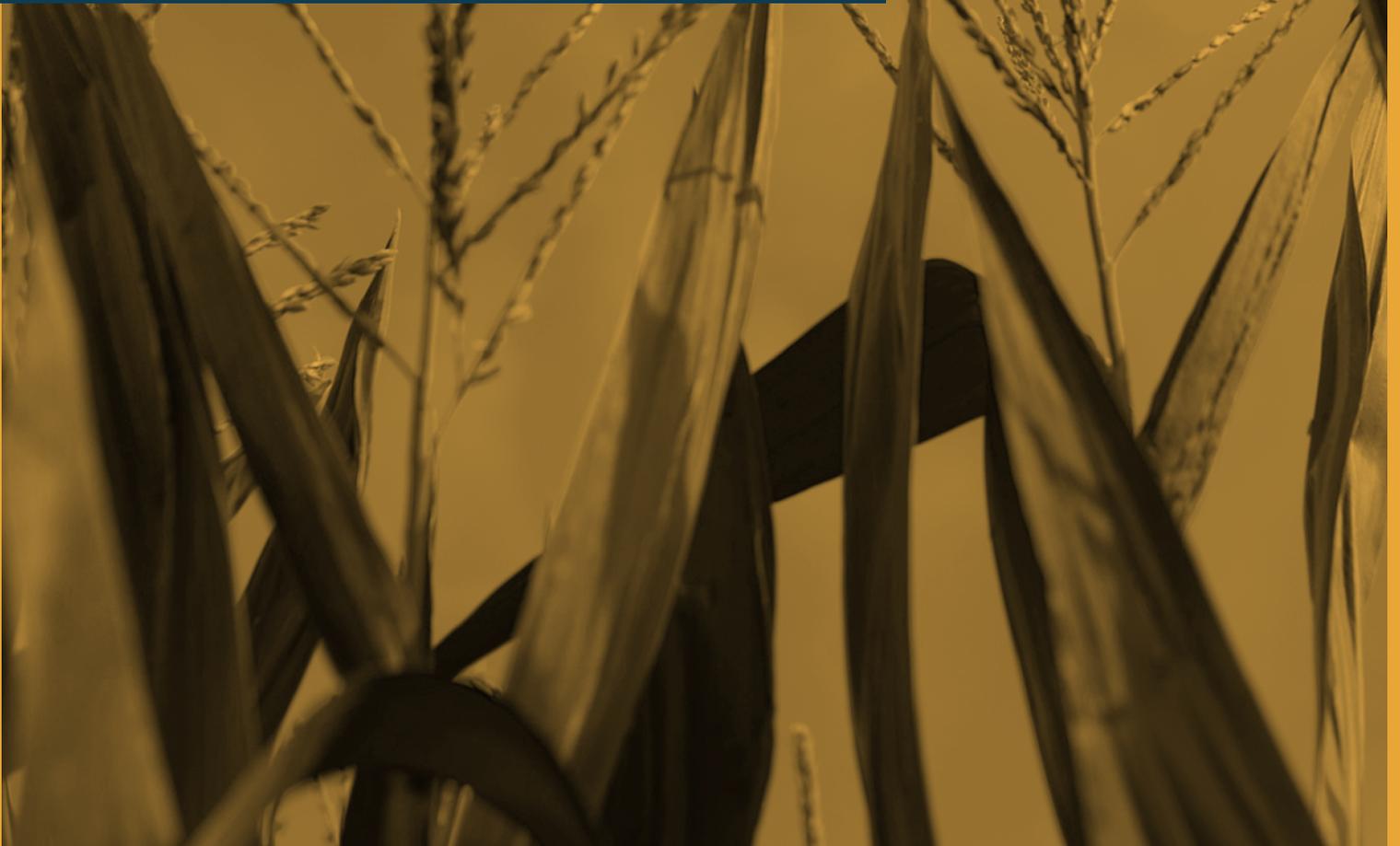


**WINFIELD®  
UNITED**

# **BIOLOGICAL PRODUCT DIRECTORY**

A guide of biologicals  
from WinField United





# PRODUCTS TO MEET THE TOTAL ACRE

Today's retail operations require custom-fit solutions tailored to the unique conditions of every acre. To meet those needs, WinField® United offers a variety of biological product options within our comprehensive portfolio of other crop input offerings.

In retail, there's no such thing as one-size-fits-all. That's why our offerings cover a wide range of needs, so you can find the right fit for your customer's operation. With options varying in value, service, and agronomic performance, this Biological Product directory will help you browse and identify the best products for each segment of your customers.

# BIOLOGICAL PORTFOLIO OVERVIEW

## WinField United Biological Portfolio Framework

Category	Sub-Category	WinField United Portfolio	Manufacturer
<b>Biologicals</b> (living)	Microbials	Stryke Brands	New Life Biosciences
	Nitrogen Fixation	Envita Utrisha-N	Azotic Corteva
	Fungicide	Zironar	FMC
	Fungicide/Insecticide	Ethos	FMC
	Inoculants	Preside Ultra Primo R1 Vault IP Plus Vault SP	Verdesian Verdesian BASF BASF
<b>Biochemicals, Biostimulants, Biocontrol</b> (non-living)	Plant Growth Regulators	Ascend <sup>2</sup> Ascend SL Ascend Pro	WinField United WinField United WinField United
	Amino Acids	Voyagro	WinField United
	Organic Acids	CHB Brands HumiZen Brands	Bio Gro Black Earth
	Seaweed/Plant Extract	Yield ON Crop Plus Raze Take Off LS Toggle	Valagro Verdesian UPL Verdesian Acadian
	Enzymes	Zume	Brandt
	Seed Treatments	Ceramax Cover 2 VPH Heads Up Seed+ Graphite	Ceradis WinField United Heads Up Plant Protection Verdesian
	Fungicides	Fungi-Phite Kocide Oxidate	Verdesian Certis USA BioSafe Systems



# BIOLOGICAL PRODUCTS

**MICROBIAL ORGANISMS:** such as bacteria, fungi, and algae that interact with plants, animals, and soil.

**NITROGEN FIXATION:** a product that claims to help improve the efficiency of the plant's nitrogen use.

**FUNGICIDE:** living organisms that are used to control the activity of plant pathogenic fungi and bacteria.

**INSECTICIDE:** living organisms that are used to control insects.

**INOCULANTS:** beneficiary microorganisms applied to either the soil or the plant in order to improve productivity and crop health.

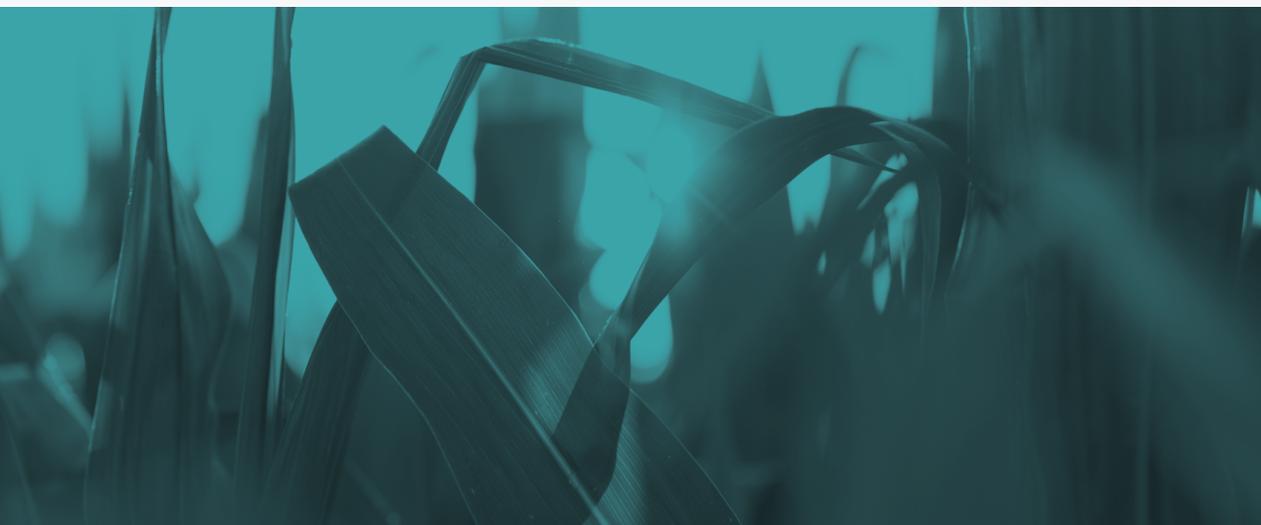
Product	Sub-Category	Description	Timing Recommendations	Use Rate/Ac
<b>Stryke Brands</b>	Microbials	A full line of specialty microbial bacteria that were custom blended to work in synergy from pre-plant to canopy giving plant protection and enhancing nitrogen utilization.	<b>Corn:</b> In-furrow, foliar, and soil-applied	0.5#/40ac
<b>Envita</b>	Nitrogen Fixation	Envita nitrogen fixation forms a symbiotic relationship with the host plant and provides nitrogen to cells throughout the plant, both above and below ground, all season long.	<b>Corn:</b> V2-V6 <b>Soybean:</b> V2-V4 <b>Cotton:</b> 3-6 leaf	3.2oz
<b>Utrisha-N</b>	Nitrogen Fixation	This biological product naturally improves plant vitality for a healthy harvest by fixing nitrogen from the atmosphere and converting it to ammonium.	<b>Corn:</b> V4-V8 <b>Soybean:</b> V4-V8 <b>Cotton:</b> 3 leaf to early branching	5oz
<b>Zironar</b>	Fungicide	A root-colonizing biological used at planting that provides season-long protection against critical fungal diseases and soil nematodes.	<b>Corn:</b> In-furrow <b>Soybean:</b> In-furrow	6-12oz
<b>Ethos</b>	Insecticide/ Fungicide	An in-furrow solution that partners bifenthrin insecticide with a biological that protects seedlings from pests and disease for fuller, deeper root systems.	<b>Corn:</b> In-furrow <b>Soybean:</b> In-furrow	6.8-17oz
<b>Preside Ultra</b>	Inoculants	Preside Ultra soybean inoculant uses Take Off technology to accelerate nutrient acquisition and utilization into the plant. It offers up to two times more rhizobia ( <i>Bradyrhizobium japonicum</i> ) with multiple strains for more consistency.	Before Planting	1.5 fl oz/cwt or 0.75 fl oz/ 140K seeds
<b>Primo R1</b>	Inoculants	Primo R1 is a super concentrated soybean inoculant that helps provide soybean plants with the levels of rhizobia required to produce the nitrogen it needs.	Before Planting	1.25 fl oz/cwt or 0.625 fl oz/ 140K seeds
<b>Vault IP Plus</b>	Inoculants	3 active ingredients/MOA - Superior rhizobia strain for maximum N fixation; EPA registered <i>B. amyloliquifaciens</i> for extended disease control and <i>B. subtilis</i> for plant health and nutrient acquisition.	Before Planting	1.1 fl oz/cwt or 0.51 fl oz/ 140K seeds
<b>Vault NP for Soybeans</b>	Inoculants	Concentrated single strain of rhizobia to improve nodulator and yield potential.	Before Planting	1.96 fl oz/ 140K seeds

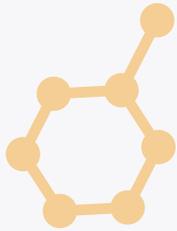


# BIOCHEMICAL PRODUCTS

**PLANT GROWTH REGULATORS:** products used to affect major physiological functions of plants.

Product	Sub-Category	Description	Timing Recommendations	Use Rate/Ac
 <b>Ascend<sup>2</sup></b>	Plant Growth Regulators	This is an auxin-dominant unique blend of three PGRs that no other product on the market can imitate. Specifically designed for in-furrow use on corn that leads to larger root mass and quicker emergence but may be also used foliar to enhance vegetative growth (data to com in 2022). PGR ratio and formulation are Patent Pending.	<b>Corn:</b> In-furrow and foliar <b>Soybean:</b> R1-R3 <b>Cotton:</b> Match head square through boll	<b>Corn:</b> 4.7-6.3oz INF 6.7-10.8oz foliar <b>Soybeans:</b> 3.4-6.8oz <b>Cotton:</b> 3.4-5oz
 <b>Ascend SL</b>	Plant Growth Regulators	Can be used in-furrow or foliar to enhance vegetative growth. When used foliar on soybeans, petiole length and trifoliolate size are increased as well as an increase and flowering and pod retention into reproduction stages.	<b>Corn:</b> In-furrow and foliar <b>Soybean:</b> R1-R3 <b>Cotton:</b> Match head square through boll	<b>Corn:</b> 4.7-6.3oz INF 6.7-10.8oz foliar <b>Soybean:</b> 3.4-6.8oz <b>Cotton:</b> 3.4-5oz
 <b>Ascend Pro</b>	Plant Growth Regulators	This is blend of three PGRs + amino acid derivative that no other product can imitate. Designed for in-furrow use on corn that can lead to larger root mass and quicker emergence.	<b>Corn:</b> In-furrow	<b>Corn:</b> 4.7-6.3oz INF





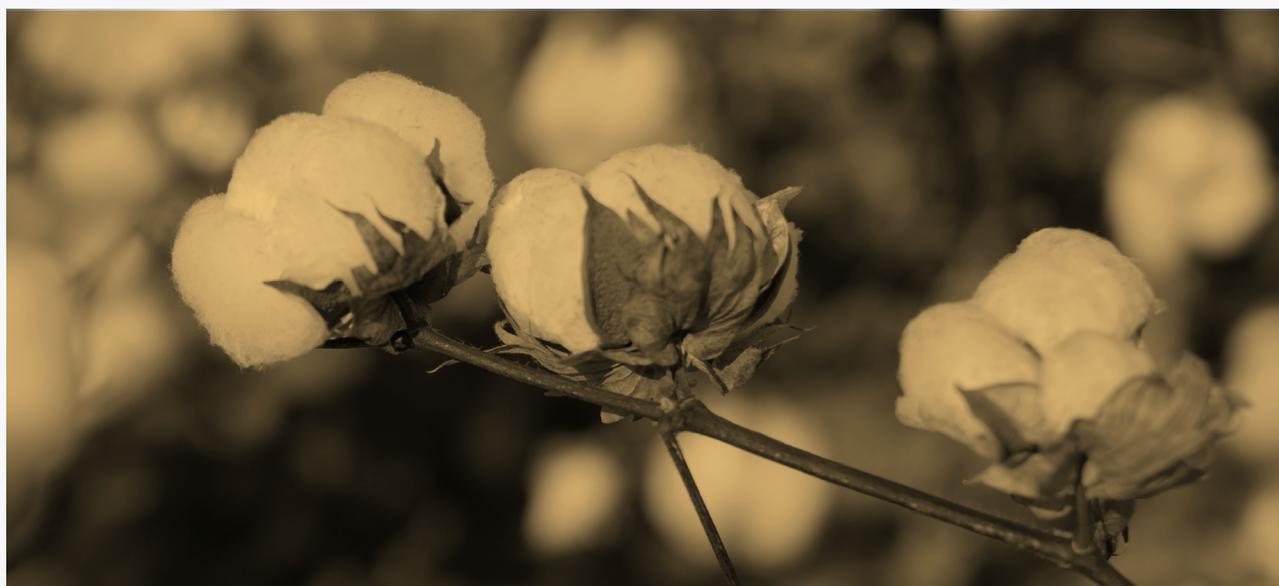
# BIOSTIMULANT PRODUCTS

Biostimulants are substances or microorganisms that, when applied to seeds, plants, or on the rhizosphere, stimulate natural processes to enhance or benefit nutrient uptake, nutrient use efficiency, tolerance to abiotic stress, or crop quality and yield.

**AMINO ACIDS:** Give plants a boost by allowing them to immediately process amino acid sequences, saving energy for other metabolic processes, and increasing production.

**ORGANIC ACIDS:** Can improve soil fertility and mimic the effects of natural humus. By doing this they can increase water holding capacity, improve soil structure and increase CEC.

Product	Sub-Category	Description	Timing Recommendations	Use Rate/Ac
 <b>Voyagro®</b>	Amino Acids	A powerful amino acid that works well on highly managed corn acres where there is moisture stress prior to application or where stress is anticipated	<b>Corn:</b> V8-V11 +/-or V15-VT <b>Soybeans:</b> R1-R3 <b>Cotton:</b> Early Bloom	4-16oz
<b>CHB Brands</b>	Organic Acids	Custom Humic Blends (CHB): Clean Application, Highly Compatible, Clear Growth Results	Varies based on product	Varies
<b>HumiZen Brands</b>	Organic Acids	A broad portfolio of humic and fulvic organic acid products to fit a wide variety of applications and needs. HumiZen is a high value line of humalite products that delivers convenience and compatibility	Varies based on product	Varies



**SEAWEED/PLANT EXTRACTS:** Uses naturally occurring nutrition of other organic matter to prevent pests and/or promote growth.

**ENZYME:** A catalyst that accelerates the chemical reaction that unblocks the nutrients present in the soil and makes it available to plant roots.

Product	Sub-Category	Description	Timing Recommendations	Use Rate/Ac
<b>Yield On</b>	Seaweed/ Plant Extracts	An organic biostimulant for late-season foliar application to corn and soybeans that improves the transport of sugars and other nutrients	<b>Corn:</b> V10-R2 <b>Soybeans:</b> R1-R3	1.5pt
<b>Crop Plus</b>	Seaweed/ Plant Extracts	Nutritional product designed to support plant tolerance to abiotic stress, improve yield, and quality of crops.	<b>Corn:</b> V6-V8 <b>Soybeans:</b> V6-R4 <b>Cotton:</b> 3-4 leaf and pinhead square	8oz
<b>Raze</b>	Seaweed/ Plant Extracts	A highly advanced, highly concentrated foliar nutrition product for corn, with proprietary RAZE Nutrient Formulation Technology that's been globally researched and proven to optimize plant nutrient utilization efficiency for enhanced plant development and higher yields.	<b>Corn:</b> V3-V8	8 oz/A
<b>Take Off LS</b>	Seaweed/ Plant Extracts	Allows plants to more efficiently assimilate carbon and utilize nitrogen and other nutrients for enhanced efficiency, leading to more bushels per acre per amount of nutrients applied.	<b>Corn:</b> V4-V5 or late fungicide timing <b>Soybean:</b> V3-V5 or R1-R3	1-2pt
<b>Toggle</b>	Seaweed/ Plant Extracts	Derived from marine plant extract and specially developed for row crops, helping crops with early significant root and plant growth to improve yield potential, especially in times of heat and drought.	<b>Corn:</b> V5-V6 or Vt-R1 <b>Soybeans:</b> R1-R3	40oz
<b>Zume</b>	Enzyme	For use in-furrow to help enhance nutrient availability and uptake at the rootzone during early growth and development.	<b>Corn:</b> In-Furrow	1qt



# BIOCONTROL PRODUCTS

**SEED TREATMENTS:** living or non-living organisms applied to seed that are used to control the activity of plant pathogenic fungi and bacteria, control insects and/or improve plant health.

**FUNGICIDES:** non-living organisms that are used to control the activity of plant pathogenic fungi and bacteria.

Product	Sub-Category	Description	Timing Recommendations	Use Rate/Ac
<b>Ceramax</b>	Seed Treatment	A prevention of soilborne fungal diseases including Rhizoctonia and Sudden Death Syndrome	<b>Soybeans:</b> Seed Treatment	1.23 oz/cwt
<b>W</b> <b>Cover 2 VPH</b>	Seed Treatment	Combination of three unique components: Heads Up®, VPH 100 BioST® and Thiabendazole fungicide help to aid in the control of SDS and White Mold in soybeans	<b>Soybeans:</b> Seed Treatment	1.6oz/cwt
<b>Heads Up</b>	Seed Treatment	Can be used as a preventative measure to help manage several devastating disease such as Pythium, White Mold and Sudden Death Syndrome	<b>Soybeans:</b> Seed Treatment	0.16oz/cwt
<b>Seed+ Graphite</b>	Seed Treatment	A nutritional seed treatment that improves germination, crop emergence, seedling vigor, and plant tolerance under abiotic stress, leading to higher yield	<b>Soybeans:</b> Seed Treatment <b>Corn:</b> Seed Treatment	<b>Soybeans:</b> 4oz <b>Corn:</b> 8oz
<b>Fungi-Phite</b>	Fungicide	A fast-acting phosphite fungicide proven to help take down diseases before they take hold of crops	Begin application after plant establishment and favorable disease conditions.	1-2qt
<b>Kocide</b>	Fungicide/ Bactericide	Copper hydroxide that acts as a protectant when applied prior to significant disease infestation.	<b>Corn:</b> first appearance of disease and every 7-14 days <b>Soybeans:</b> 6" then every 7-14 days	<b>Corn:</b> 0.5-1.75# <b>Soybeans:</b> 0.75-1.5#
<b>Oxidate</b>	Fungicide	Kills bacterial and fungal pathogens, offering superior protection for your organic or conventional field and row crops.	<b>Corn and Soybeans:</b> small plants then every 5 days <b>Cotton:</b> first disease and then every 7 days	<b>Corn and Soybean:</b> 9.6-32oz Cotton: 32-128oz



# BIOLOGICAL PRODUCT DIRECTORY

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