

The Complete BioFertilizer



**Terra[®]
Trove**

SP-1 Classic[™]

PRODUCT BRIEF



**REPLACES UP TO
50% OF STARTER
FERTILIZER**



**TANK MIX
FRIENDLY WITH
CROP PROTECTION
PRODUCTS**



**FLEXIBLE
APPLICATIONS -
IN-FURROW,
BROADCAST,
FOLIAR**



**ENHANCES
NUTRIENT UPTAKE
& AVAILABILITY**



**IMPROVES PLANT
ROOT VIGOR**

The Breakdown

Proprietary Plant-Based Humus Extract

Improves the soil ecosystem affecting water, nutrients and microbes, building a symbiotic environment that is conducive to the exchange of essential nutrients for uptake.

Plant Growth Promoting Rhizobacteria (PGPR)

Free-living bacteria that colonize the rhizosphere, breaking down organic matter, capturing nitrogen, solubilizing phosphorus and cycling nutrients to become more available for the plant.

Algae

Green manure which quickly breaks down and releases organic carbon into soil becoming a food source microbes as well as the plant.

Fermented Plant Extract

Diverse blend which impact microbial diversity and stabilize overall formulations.



Product Description

The complete biofertilizer comprised of a diverse community of microbes, plant-based humus extracts and algae, that work together to make existing nutrients available allowing growers to replace up to 50% of their starter fertilizer.

Features

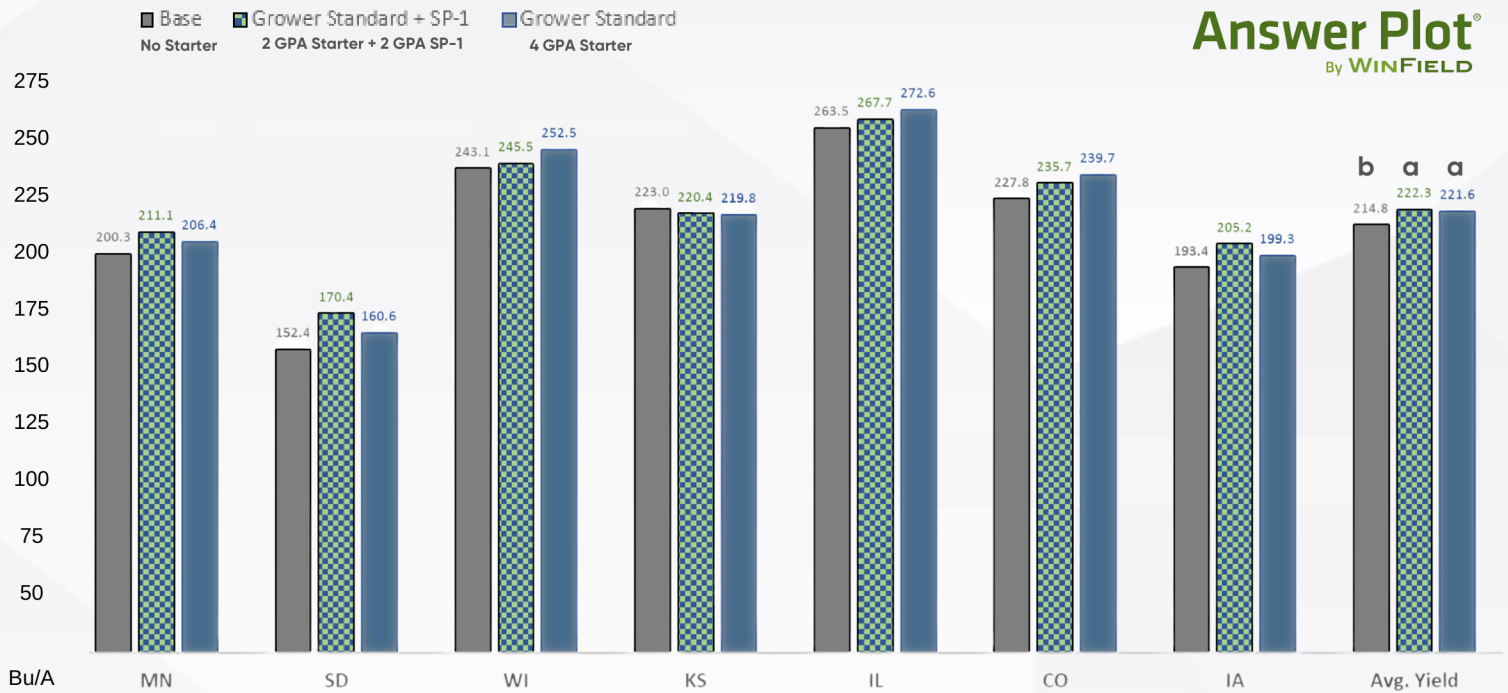
- Replace up to 50% of starter fertilizer when used in-furrow when planting.
- Easy-to-use liquid formulation seamlessly integrates into broad acre application practices, including broadcast, in-furrow, 2X2, drip, foliar and fertigation.
- Enhances microbial populations which break down organic matter, capture nitrogen, solubilizes phosphorus, & cycles nutrients - ultimately making nutrients more available to the plant.





Making Your Fertilizer Dollar Work - Replacement Trials

When TerraTrove SP-1 Classic is applied with starter fertilizer, growers have reliably replaced up to 50% of their starter fertilizer needs when planting, without sacrificing performance and in many cases improving crop yield and on-farm profitability. When combined with starter the products perform Better Together.

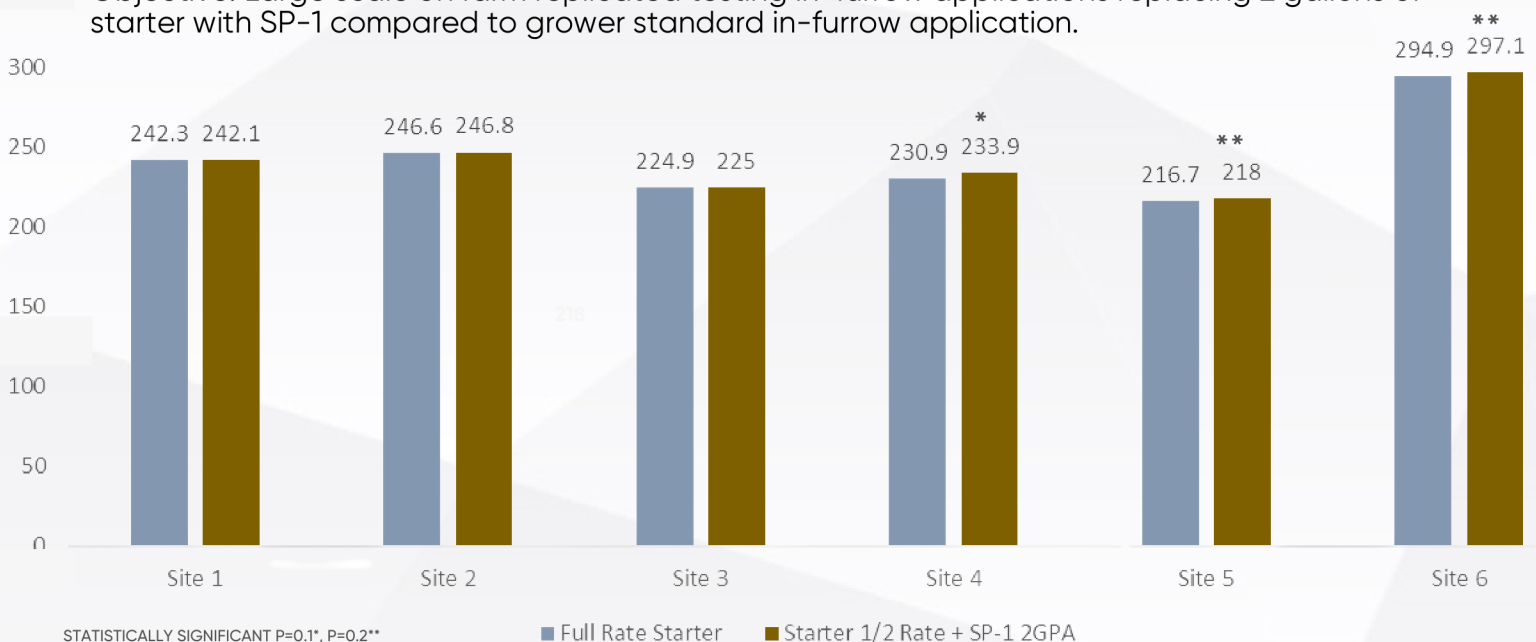


Answer Plot
By WINFIELD

- Across 7 locations, when Starter was replaced with 2G of SP-1, the combination of 2G Starter + 2G SP-1, while not individually statistically significant, 4 of those locations out yielded the growers standard practice of 4 GPA of starter.
- Average Yield for SP-1 Classic at 2 GPA + 2 GPA of Starter was 222.3 Bu/A va. 221.6 Bu/A for the grower standard of 4 GPA of starter.
- When analyzed across all locations, SP-1 and the Grower Standard where statistically different from the Base Treatment.

3rd Party SP-1 Classic - Starter Replacement Trials

Objective: Large scale on farm replicated testing in-furrow applications replacing 2 gallons of starter with SP-1 compared to grower standard in-furrow application.



STATISTICALLY SIGNIFICANT P=0.1*, P=0.2**

■ Full Rate Starter ■ Starter 1/2 Rate + SP-1 2GPA



- 4 modes of action that provide season long benefits.
- The most complete mix of biological additives in the market.
- Releases/Makes available Macro's, Secondary & Micro-Nutrients ensuring you get the most value from your fertilizer



SP-1 Classic Drives Vigor & Uniform Crop Establishment



Earlier and more uniform emergence and better stands = Greater Yield Potential

- First Day Emergence
- Second Day
- Third Day

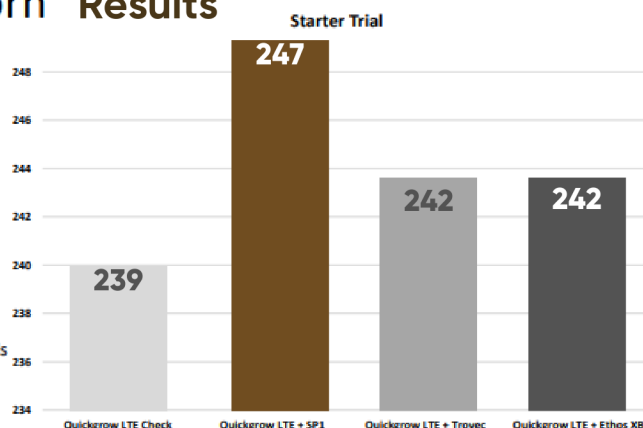
TerraTrove™ SP-1 Classic™ + Starter

Starter Only

Starter Trial Corn Results

Location: Strasburg Continued
Crop Specialist: Trevor Warner

Hybrid: DKC 63-90
Population: 35,000
Planted: 5/11/22
Harvested: 9/29/22
Check yield: 239.11 bushels
Advanced SP1 yield: 8.19 Bushels
Advanced Trovec yield: 3.31 bushels
Advanced Ethos XB yield: 3.25 bushels
ROI: \$ per acre



Cross Trial Summary Analysis of Plant Stand

Mean Stand Count

Grower Standard

32,289

SP-1 @ 2 GPA

33,215

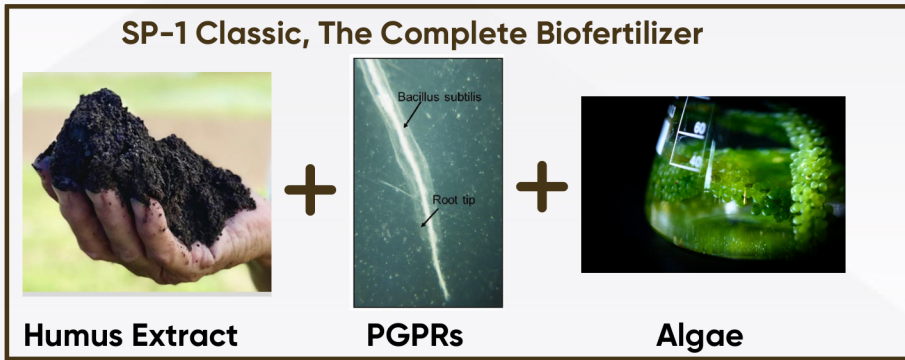
Across 9 locations, SP-1 Classic averaged over 900 more plants per acre



SP-1 Classic consistently delivers better stand counts and more uniform emergence and seedling establishment setting the foundation for successful crop establishment and more yield potential.

SP-1 Classic - Better Together

SP-1 Seamlessly Fits into your Operation & Pairs well with Fertilizers

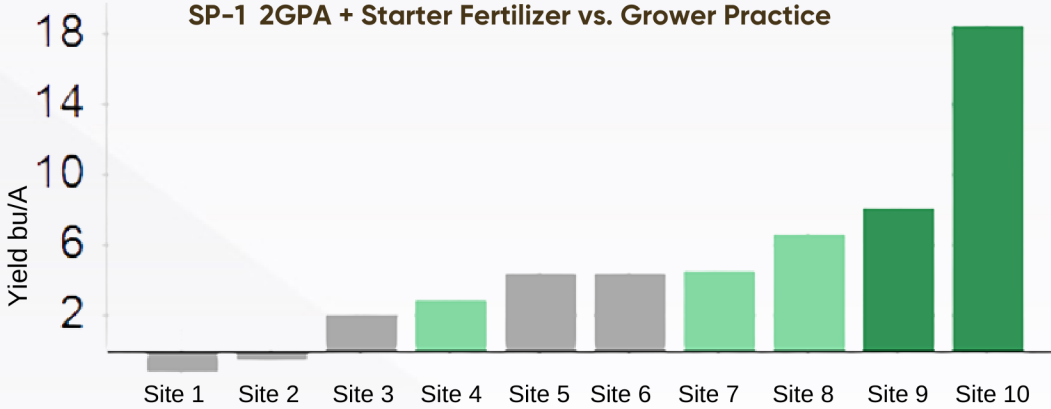


Starter

THE COMPLETE SOLUTION

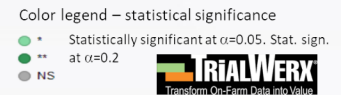
- The ingredients in SP-1 Classic make it a complete system designed to unlock nutrients in the soil. When paired with starter fertilizer the benefits of SP-1 grow exponentially.

10 Large Scale, Replicated Commercial Trials
SP-1 2GPA + Starter Fertilizer vs. Grower Practice



Mean yield response:

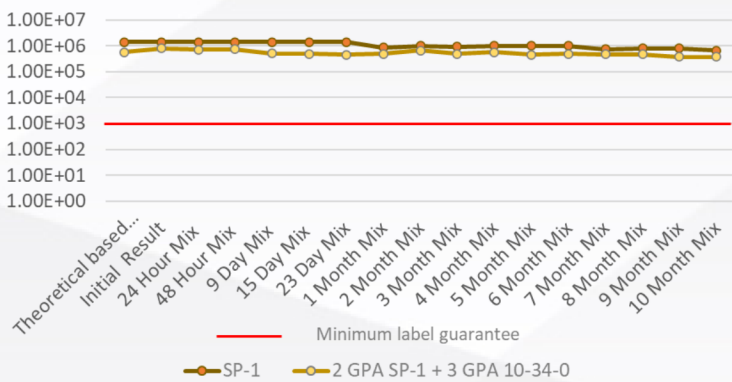
Across 10 large scale, replicated studies, SP-1 Classic had a 80% + win rate with responses of 5-20 bu/acre when paired with starter fertilizer against the farmer standard management and a mean absolute difference of 5.0 bu/acre



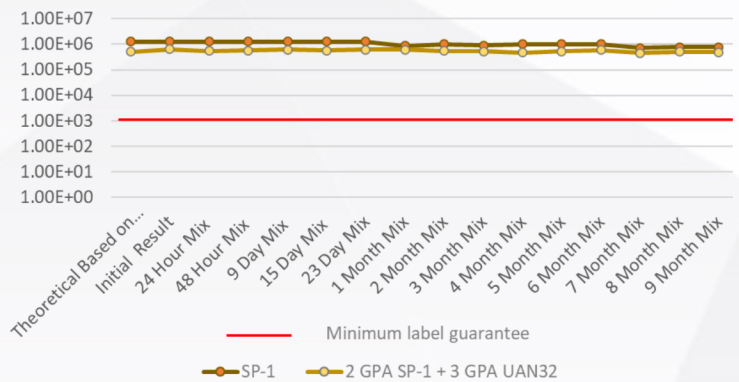
SP-1 CLASSIC IS COMPATIBLE WITH COMMON STARTERS AND FERTILIZERS. IF YOU CAN MIX FERTILIZER WITH WATER, YOU CAN MIX WITH SP-1.

SP1 Fertilizer Compatibility

SP-1 Classic Compatibility with 10-34-0



SP-1 Classic Compatibility with UAN32



(1.00E+06) = 1 MILLION SPORES PER GRAM OF PRODUCT

- After 10 months there was no change in the viability of the biology when mixed with fertilizer
- SP-1 as a standalone unmixed product is stable for up to 2 years



SP-1 Classic Foliar Applications

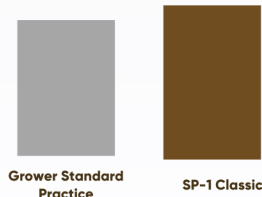
While SP-1 is not a PGR, the ingredients within SP-1 work together to produce Phytohormones such as Auxins, Gibberellins & Cytokinins that are known to:

- STIMULATES PLANT GROWTH
- LESSENS ABIOTIC STRESSES
- SUPPORTS REPRODUCTIVE PROCESSES

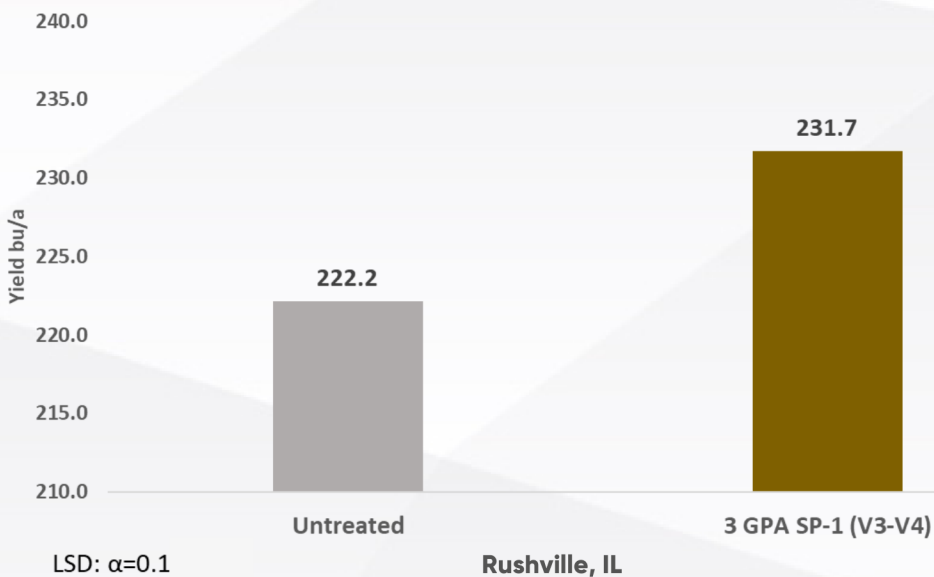
*Foliar Application at V5 with Ground Rig
+22 bushel response*



*Applied through Pivot at V5
+4 bushel response*



SP-1 Post-emergence foliar application vs Untreated



The Foliar treatment of SP-1 @ 3GPA showed a statistically significant increase in yield over the check



SP-1 Classic is well known for its work in the soil, but it is widely used as a foliar application. This versatile biofertilizer integrates seamlessly into your current operations whether it be broadcast, in-furrow, 2X2, foliar or fertigation!



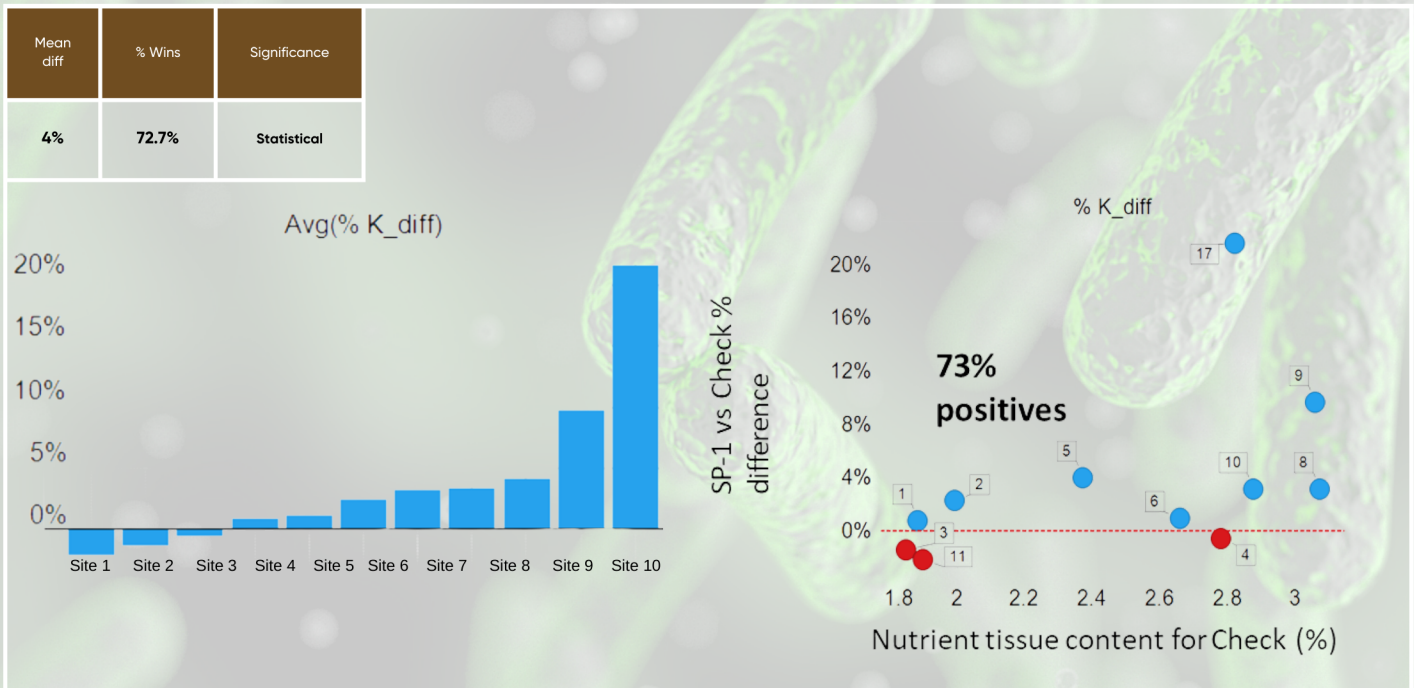


SP-1 Classic Microbiology Functionality

SP-1 Classic utilizes multiple microorganisms to support plant nutrition. This table outlines what percentage of organisms contribute to specific nutrient cycling.

Nutrient	% Functionality
N Release	75%
P Solubilization	36%
K Solubilization	36%
Fe	95%
Zinc	56%
Mn	94%
S	99%
Ca	64%
Mg	64%

LEAF TISSUE ANALYSIS



Significant increase in K leaf tissue, positive effects in 73% of sites.

SP-1 Classic Highlights



Replace up to 50% of starter fertilizer when use in-furrow at planting



Easy-to-use liquid formulation that can be easily integrated into broadcast applications. Including broadcast, in-furrow, drip and fertigation



Enhance microbial populations which breakdown organic matter, captures nitrogen, solubilizes phosphorus and cycles nutrients



**Terra
Trove™
SP-1 Classic™**