



Maximizing Earth's Potential

PROVEN

BECK'S

Fixes Atmospheric Nitrogen  
Stimulates Root Growth  
Compatible with Most Starters  
Promotes Better Stand  
Increases Drought Tolerance

## MicroAZ-IF Liquid™

### IN-FURROW TREATMENT FOR CORN



MicroAZ-IF is an in-furrow inoculant for corn that contains the stabilized bacteria *Azospirillum*. It's easy to use and can be tank mixed with starter fertilizers.

The *Azospirillum* in MicroAZ-IF harvests and fixes atmospheric nitrogen so that it can be used by the plant; it also exudes plantlike compounds that stimulate root development for improved nutrient uptake and increased yields. Once the planted seed germinates and the roots start to develop, the bacteria attach to the roots and begin to work.

The root stimulation effects by *Azospirillum* create even more attachment sites and an environment that allows the bacteria to thrive. The nitrogen fixing capability of the bacteria allow the plant to use nitrogen from sources other than the applied nitrogen. These functions allow the plant to better utilize the available soil nutrients.

#### Guaranteed Minimum Analysis:

$2 \times 10^4$  *Azospirillum* per ml

#### Application Rate:

12.8 ounces per acre

2.5 gallons treats 25 acres

2 Year Shelf Life



# STARTER ADDITIVE STUDY

## IN-FURROW TREATMENT FOR CORN

### PURPOSE

To evaluate various starter additive products, applied in-furrow, and their effects on yield and profitability.

### 2018 RESULTS

IN-FURROW TREATMENTS	EMERGED POPULATION	POPULATION DIFFERENCE	BU./A.	BU./A. DIFFERENCE	RETURN ON INVESTMENT
Control Starter:	32,165	--	222.3	--	--
Starter + 1 pt. NanoZyme 2.0	31,599	-566	226.8	+4.5	+\$13.89
Starter + 1 qt. MicroCarb ZMB™	32,366	+201	226.7	+4.4	+\$12.83
Starter + 12.8 oz. <b>MicroAZ-IF Liquid™</b>	32,020	-145	225.3	+3.0	+\$5.76
Starter + 1 pt. Environoc® 401	32,553	+388	223.5	+1.2	-\$3.30
Corn \$3.92/Bu. Environoc® 401 \$64.00/gal. <b>MicroAZ-IF Liquid™</b> \$60.00/gal. NanoZyme 2.0 \$30.00/gal. MicroCarb ZMB™ 17.63/gal. These results are based on the disclosed study parameters and participating sites.					

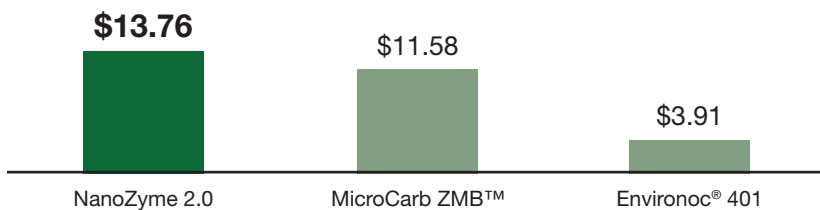
### PARTICIPATING SITES

IN	KY	C.IL	S.IL	OH	IA
MN	WI	MO	S.KY	TN	

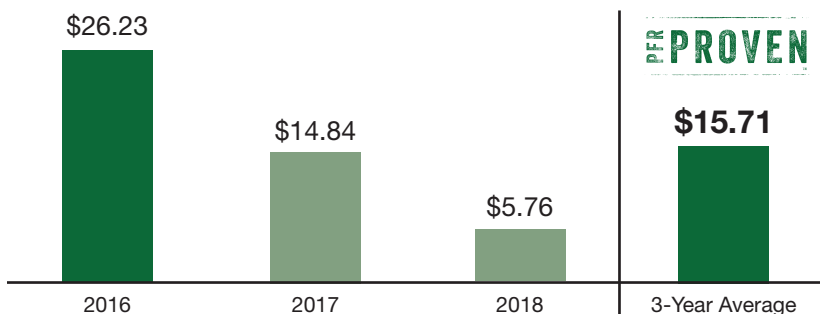
### OBSERVATION

Beck's PFR started looking at starter additive products in corn to determine if they could help increase yield. All four of the products tested this year are different in their own way, yet they are all designed to do one thing; maximize early-season vigor and nutrient uptake. While some of these products do add some nutritional benefit, they are all focused on microbes. Microbes are living organisms in the soil that include bacteria and fungi that play a crucial role in corn crops. Nutrient availability is highly dependent on soil microbes because they feed on soil organic matter and release the necessary nutrients for plant growth.

### 2-YEAR MULTI-LOCATION STARTER ADDITIVE ROI



### 3-YEAR MULTI-LOCATION MICROAZ-IF LIQUID™ ROI



Alex Long  
Field Agronomist