

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 x 10<sup>4</sup> Azospirillum per ml

## **Application Rate:**

12.8 ounces per acre

2.5 gallons treats 25 acres

2 Year Shelf Life



### **PURPOSE**

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

### 2018 RESULTS

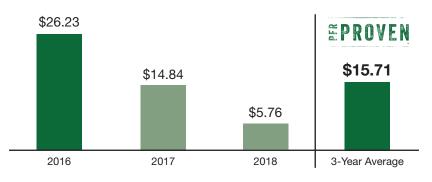
IN-FURROW TREATMENTS	EMERGED POPULATION	POPULATION DIFFERENCE	BU./A.	BU./A. Difference	RETURN ON Investment
Control Starter:	32,165		222.3		
Starter + 1 pt. NanoZyme 2.0	31,599	-566	226.8	+4.5	+\$13.89
Starter + 1 qt. MicroCarb ZMB™	32,366	+201	226.7	+4.4	+\$12.83
Starter + 12.8 oz. <b>MicroAZ-IF Liquid</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. **MicroAZ-IF Liquid™** \$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.

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



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



### PARTICIPATING SITES



# **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.

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