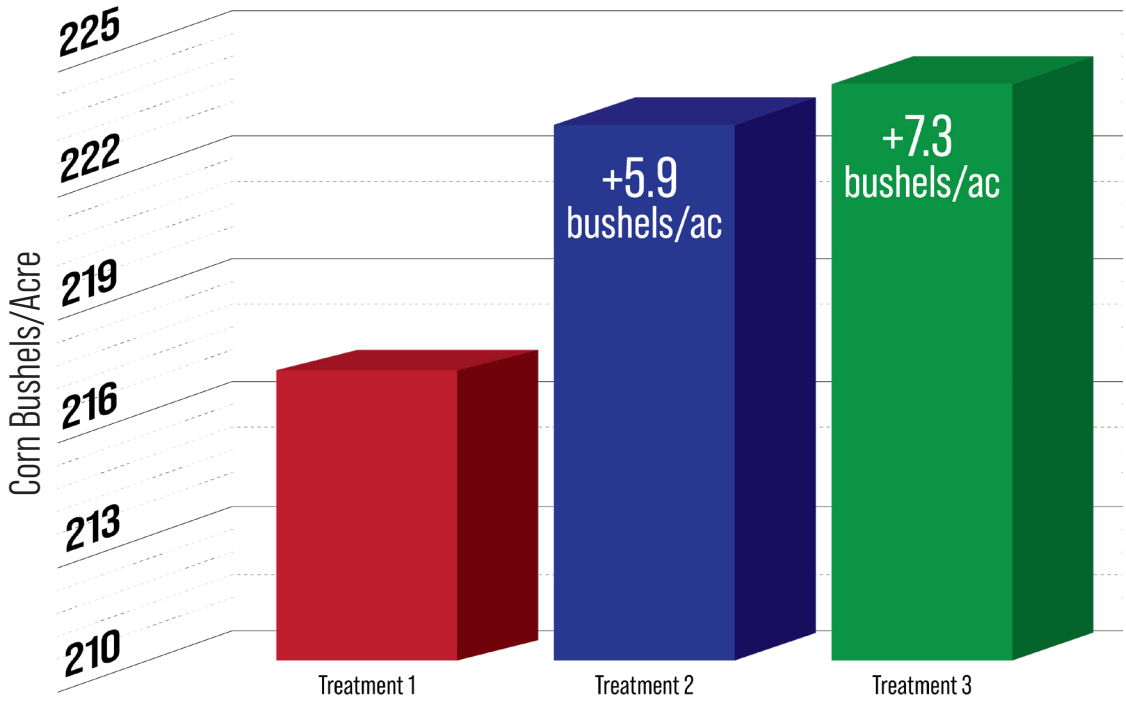
IN-FURROW BIOLOGICAL STUDY
HERITAGE AG RESEARCH
FAIRBANK, IA

SUMMARY

A randomized replicated corn trial was established in Fairbank, Iowa at the Heritage Ag Research facility in 2022. There have been numerous dialogues and trial data over the past few years with companies claiming that they have products that can fix atmospheric nitrogen in corn. To brand these products, certain soil bacteria [naturally occurring or genetically modified] need to be existent along with adequate food sources for the soil microbes to feed upon. QLF tested one of the commercially available products, Envita [Azotic]. Two main in-furrow products were used to test with Envita, L-CBF 7-21-3MKP and 10-34-0 [APP]. The treatments that had Envita, did demonstrate greater SPAD readings at V12, (measurement of leaf chlorophyll concentrations) Yield and Return on Investment (ROI) would need a quality carbon-based starter with higher nitrogen supply (in-furrow) along with a high plant sugar source, thus allowing for a symbiotic relationship between the soil bacteria and plant up to maturation.

Plant Date: 05-16-2022 **Harvest Date:** 11-12-2022

CORN YIELD



Treatment No.	Treatment Name	Placement	Rate/Acre
1	10-34-0	In-Furrow	5 Gallons
2	10-34-0 + Envita	In-Furrow	5 Gallons + 3.2 fl. oz.
3	7-21-3MKP + Envita	In-Furrow	5 Gallons + 3.2 fl. oz.

ROI is based on fertilizer input cost, grain corn yield, and corn price [$6.80 Bu/Ac]