

FIELD TRIAL RESULTS

SUMMER 2017 LETTUCE TRIAL WITH PACIFIC AG RESEARCH

TRIAL DESIGN

- Trial performed in seeded head lettuce (*Lactuca sativa*) to evaluate the efficacy of Concentric's IN-M1* to mitigate the reduction of nitrogen inputs. Trial performed at the Pacific Ag. Research site in Salinas, California, as a randomized complete block with six replications.
- Experimental plots were 3.33ft wide x 40ft long consisting of 70 plants each.
- Treatments involved a step-wise reduction in nitrogen along with a program of IN-M1 applications across treatments. Two control treatments were used that did not contain IN-M1. All treatments were as follows:
 - 1) Commercial standard fertility program
 - 2) Standard program + 3 gal/acre IN-M1
 - 3) 10% N reduction in standard program + 3 gal/acre IN-M1

- 4) 20% N reduction in standard program + 3 gal/acre IN-M1
- 5) 30% N reduction in standard program
- 6) 30% N reduction in standard program + 3 gal/acre IN-M1
- 7) 40% N reduction in standard program + 3 gal/acre IN-M1
- Treatments with IN-M1 involved five applications: one gal/acre pre-plant and four applications of 0.5 gal/acre to the soil once per month, providing a total of 3 gal/acre of IN-M1 throughout the trial. All treatments received a standard commercial fungicide and insecticide program.



FIGURE 1: Researchers at a Pacific Ag research site in Salinas, California, harvest lettuce in Summer 2017.



*IN-M1 is currently labeled as INOCUCOR GARDEN SOLUTION® in the United States and INOCUCOR IN-M1 (0-0-0.2) SYNERGRO® in Canada.



30.000 LBS/ACRE 5,000 ٢ 0 0 Ŷ CONTROL CONTROL 30% N REDUCTION 10% N 20% N 30% N REDUCTION REDUCTION REDUCTION CONCENTRIC CONCENTRIC CONCENTRIC CONCENTRIC

LETTUCE MARKET WEIGHT / ACRE

YIELD BY LETTUCE HEAD SIZE



STUDY RESULTS

YIELD

- The addition of IN-M1 to the grower standard fertility program resulted in a 4.5% increase in yield with a 24% reduction in cull weight, achieving an additional 1,226 lbs/acre for the grower.
- Using USDA's average \$/CWT price for California head lettuce at \$23.80/CWT, this translates into an additional \$291.79/acre in revenue.

NITROGEN REDUCTION

- Applications of IN-M1 significantly mitigated yield decreases from nitrogen reduction.
- Lettuce with 30% N reduction yielded +31.3% higher with IN-M1 than without.
- Yields were comparable between lettuce grown with grower standard control and those grown with 10% N reduction plus IN-M1.
- The results show the potential for maintaining yields while reducing nitrogen leaching and runoff through the use of IN-M1.

IN-M1 (currently labeled as INOCUCOR GARDEN SOLUTION® in the U.S. and Inocucor IN-M1 (0-0-0.2) SYNERGRO® in Canada) is a microbial technology for growers that helps sustain robust plant growth, impart vigor and enhance yield. It is designed to be active across a diverse range of specialty produce, geographies and for all types of modern growing systems from field to greenhouse to hydroponics, for both organic and conventional growers. More robust plants can better deal with the challenges of production agriculture, including transplantation of seedlings, poor soil, extreme weather and other biotic and abiotic stresses.

WWW.CONCENTRICAG.COM



TO LEARN MORE ABOUT IN-M1, CONTACT:

RON RESTUM

VICE PRESIDENT, SALES & COMMERCIAL DEVELOPMENT

M: 316-744-5260 RRESTUM@CONCENTRICAG.COM