

Redox Bio-Nutrients RDX-N™ CAB Nitrogen Management Study

Objective: To evaluate the effect on yield and economics using Redox Bio-Nutrients RDX-N™ (Figure 1.) in a corn after soybean rotation. It is a plant-active botanical extract designed to elevate nitrogen use efficiency by enhancing the plant's natural metabolism. RDX-N is the first and only bio-stimulant of its kind, as it is not a microbe nor a chemical delay. It works by activating metabolic pathways that support sufficient nitrogen uptake, assimilation, and utilization all season long.

For this study, nitrogen rate is evaluated at 100% full rates (200#N), N reductions of 50#/A. (-25%), with and without RDX-N in an at-plant FurrowJet® application (Figure 2).

Results: Table 1. illustrates 100% nitrogen rates (200#N) resulted in yields of 281.5 Bu/A.

Reducing nitrogen by 50# resulted in losses of **-16.2Bu/A.** and **-\$37.91/A.**

Adding RDX-N to the reduced N rate brought overall yield up to +1.3 Bu/A. of the control and proved positive net returns of +\$22.27/A. Adding RDX -N to 100% N rate, resulted in no additional yield gain, thus economic losses of **-\$16.23/A.**

In summary Redox Bio-Nutrients RDX-N™ treatments did in fact offer the ability to reduce nitrogen rate without sacrificing economic losses.

Figure 1. RDX-N Active Ingredients

| GUARANTEED ANALYSIS (0-0-3) | |
|---|-------------------------|
| Potassium (K) | 3% |
| Calcium (Ca) | 0.15% |
| Derived from potassium hydroxide, calcium chloride. | |
| ALSO CONTAINS NON-PLANT FOOD INGREDIENT(S) | |
| GUARANTEED ANALYSIS - SOIL AMENDING INGREDIENT(S): | |
| 1% | Humic Acid |
| 2% | Fulvic Acid |
| 97% | Total Other Ingredients |

Figure 2. Furrow Jet® 3-Way Placement

