



Huma® Fertilizer Program Improves Potato Yield by 5%, With 200% ROI

Research Report

Conducted by: SGS North America, Inc., South Dakota
 Huma® Products: Breakout®, Calcium, Golden Pro®, Jackpot®, Vitol®, Zap®

Background

Huma® liquid fertilizer programs with Micro Carbon Technology® provide growers with efficient crop nutrients via foliar spray or irrigation at the exact time crops need them. Precision timing of efficient nutrition provides better crop yield and quality.

Objective

The focus of this study was to assess how the efficient Huma® nutritional products affect potato yield and return on investment (ROI) when applied at specific growth stages.

Materials & Methods

The trial was conducted as a randomized complete design block with four replications at the research facility of SGS in Aurora, S. Dak. All the plots received a grower standard (GS) fertilizer program based on the region's normal practices (Table 1). Nitrogen from urea, phosphorus from mono-ammonium phosphate (MAP), and potassium from potash were applied. In addition to the GS program, the Huma® products with identified purposes were applied at crop specific stages (Table 1). The potatoes were planted on May 24 and harvested on September 1.

Table 1. Grower standard and Huma® product applications

Treatment	Products	Amount	Method	Timing
Grower Standard (GS)	Nitrogen	150 lb	Broadcast/Incorporation	1 wk Prior to Planting
	Phosphorus	15 lb		
	Potassium	15 lb		
GS + Huma® Program	GS (All products Above)			
	Zap®	2 qt	Broadcast/Incorporation	1 wk Prior to Planting
	Breakout®	1 qt	Foliar	Vegetation, 4 Leaf
	Vitol®	1 qt	Foliar	Pre-tuber Initiation
	Golden Pro®	1 qt	Foliar	Pre-tuber Filling
	Jackpot®	1 qt	Foliar	Pre-defoliation
	Calcium	1 pt	Foliar	Pre-defoliation

Results

Application of Huma® products in addition to the GS products improved the potato yield by 5% (Fig. 1). However, the results were not statistically significant.

Conclusions

The Huma® nutrient program translated into a higher net gain of \$89 per acre when compared with the GS program alone. This gave a 200% return on investment (ROI).

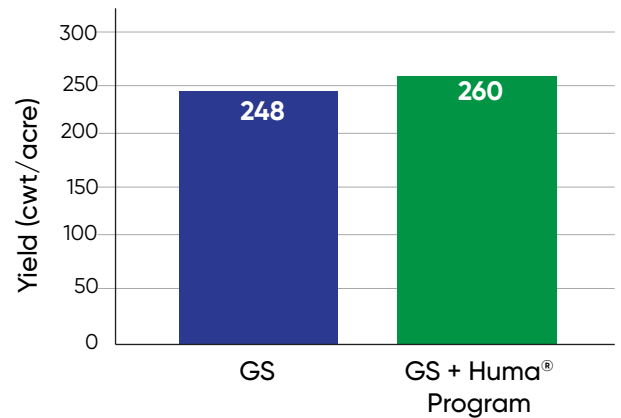


Figure 1. Potato Yields Compared With Grower Standard vs. Grower Standard + Huma® Program

Product Summary



Breakout® is designed to feed the natural metabolic process within the plant for enhanced bud initiation, flowering, and fruit set.

Calcium ensures maximum calcium uptake and translocation within the plant for cellular strength and growth, plant health, and fruit development.



Golden Pro® is a unique formulation that provides plants with the nutrients to feed the metabolic processes necessary for fruit sizing and improved quality and yield.

Jackpot® is a concentrated formulation of potassium and boron that feeds the metabolic processes necessary for uniform fruit maturity and improved shelf life, resulting in higher quality fruit.



Vitol® feeds natural metabolic processes for vegetative development and fruit sizing. It increases nutrient uptake and smoothly transitions the plant through its growth stages. It also improves plant recovery from environmental stresses during peak crop demand periods.

Zap® is a formulation of nutrients for feeding the native beneficial soil microbial balance. It feeds a strong, vigorous soil biology, which indirectly results in the natural improvement of soil health.

