

Huma Gro® Super Phos® on Corn 15x More Efficient than Conventional Phosphorus (10-34-0)

Field Trial

Location: Corn Field in Marshall, Minnesota

Objective

This field trial assessed the Phosphorus (P) efficacy of Huma Gro® Super Phos® on corn yield in comparison with the standard 10-34-0.

Materials and Methods

The corn field was located in Marshall, Minn.; the soil was a clay loam with 3.8% organic matter and a pH equal to 7.6. The design was a randomized complete block with two replicates per treatment. Each plot size was 4 rows x 60 feet. The treatment included (1) 100% P supplied with 1.225 GPA Super Phos®, (2) 100% P supplied by 18.38 GPA 10-34-0, and (3) 50% P supplied by 0.613 GPA Super Phos® plus 50% P supplied by 9.19 GPA 10-34-0. The fertilizers were broadcasted using a tractor-mounted plot sprayer.

Results

Table 1. Applications, Yield, and Cost

Treatment	Replicate #1 Yield (bpa)	Replicate #2 Yield (bpa)	Average Yield (bpa)	Dealer Cost per acre
100% Super Phos®	302.09	261.41	281.75	\$33.44
50% Super Phos®, 50% 10-34-0	266.02	257.56	261.79	\$44.80
100% 10-34-0	204.11	161.08	182.6	\$56.16

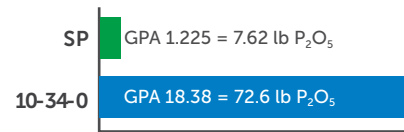


Figure 1. Application Rates Per Acre, Super Phos® vs. 10-34-0

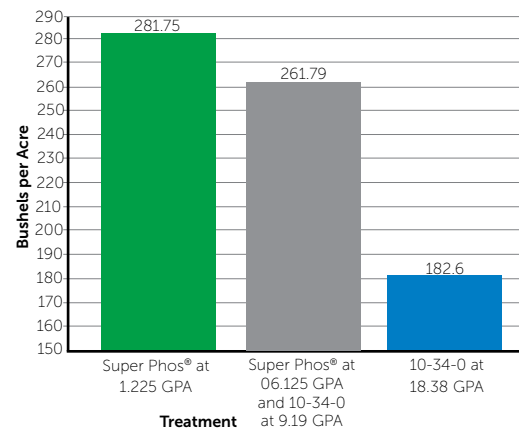


Figure 2. Corn Yield Assessment in Bushels Per Acre

Conclusions

Huma Gro® Super Phos® at 1.225 GPA **increased corn yield by 99.15 bu/ac** in comparison with 10-34-0 at 18.38 GPA. This demonstrates Super Phos® to be **15 times** more efficient than 10-34-0 at delivering phosphorus to corn and, at MSRP at the time of the trial, represented a **40% savings** on fertilizer cost.

Achieving higher yield while using much less product (7.62 lb of P₂O₅ for Super Phos®, vs. 72.6 lb of P₂O₅ from the 10-34-0) has the added benefit of presenting much less opportunity for phosphorus soil-leaching and runoff into nearby water, thereby protecting the environment. It also facilitates sustainable agriculture through adherence to **4 R Nutrient Stewardship** by applying the right source of plant nutrients at the right rate, at the right time, and in the right place.

