

Huma Gro® Program Increases Strawberry Yields 14%, With an ROI > \$2,500/acre

Field Trial

Conducted by: Holden Research and Consulting
 Huma Gro® Products: Promax®, Zap®, Vitol®, Breakout®, Calcium, Lucky 7®

Objective

This field trial assessed the effects of PROMAX® and ZAP® on top of fumigation—plus additional foliar applications of 4 Huma Gro® fertilizer products—on the yield of Portola strawberries when compared with the grower’s standard crop nutrition program.

Materials & Methods

This trial was set up in a complete randomized-block design conducted during the growing season of October 9, 2017, through June 18, 2018, in Ventura County, Calif. Three treatment programs were compared: Treatment 1 was the grower’s standard fumigation and nutrition program of controlled-release fertilizer applied at planting and in-season applications of N-P-K; Treatment 2 was the grower’s standard plus PROMAX® (biopesticide) applied at 2 gal/acre at preplant then 1 gal/acre monthly thereafter, and ZAP® (for feeding the native beneficial soil microbial balance) applied at 1 gal/acre preplant and at 1/gal/acre every 10–14 days after each PROMAX® application; and Treatment 3 was Treatment 2 plus foliar applications of 1 pint/acre each of Huma Gro® Vitol®, Breakout®, Calcium, and Lucky 7® every 2 weeks during the growing season for a total of 12 applications of each product.

Treatment Summary:

- Treatment 1:* Fumigation plus Grower’s Standard Fertilizer
- Treatment 2:* Treatment 1 plus Huma Gro® Promax® and Zap®
- Treatment 3:* Treatment 2 plus 4 Huma Gro® Foliar Nutrients

The strawberries were picked 16 times during the growing season, and measurements were made at each picking with results calculated cumulatively of trays picked per acre, marketable utilization of berries, yield (by weight), and price paid per yield.

Results

As can be seen in **Figure 1**, Treatment 3 (Huma Gro®) produced the most trays of picked strawberries (10 lb equivalent), with a cumulative total of 3,030 trays per acre equivalent, compared with Treatment 1 (Grower’s Standard) of 2,651 trays per acre, a 14% yield increase for Huma Gro®.

Figure 2 shows the daily market utilization for the berries picked during the season (the percentage of marketable berries from the total weight of berries picked), with Treatment 3 (Huma Gro®) resulting in 95.5% utilization and Treatment 1 (Grower’s Standard) reaching only 88%. This represents over 561 additional pounds of berries per acre that can be sold due to Treatment 3 (Huma Gro®).

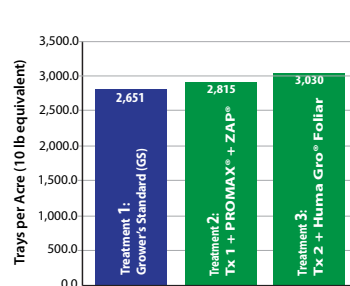


Figure 1. Total Strawberry Trays Yield per Acre, Treatment 1 vs. Treatment 2 vs. Treatment 3

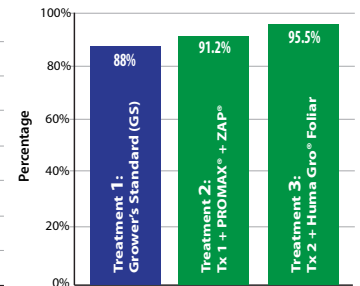


Figure 2. Percentage Strawberry Yield Marketable Utilization, Treatment 1 vs. Treatment 2 vs. Treatment 3

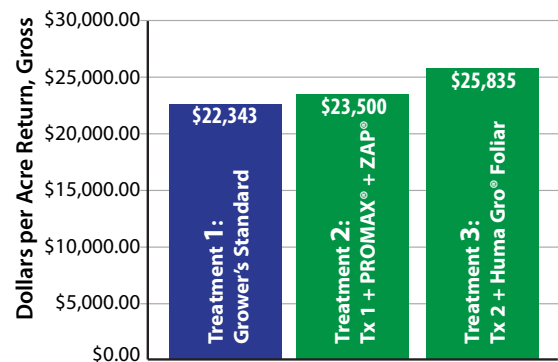


Figure 3. Total Strawberry Yield Gross Return (\$/Acre), Treatment 1 vs. Treatment 2 vs. Treatment 3

In addition, Treatment 3 strawberries individually weighed, on average, 5% more than Treatment 1 strawberries. No problems with phytotoxicity (leaf burn) were noted with the use of any of the foliar-applied Huma Gro® products.

Conclusion

Based on the data collected in this trial, the 2 Huma Gro® treatment programs resulted in both higher yields and a higher percentage of marketable yield. Treatment 3 resulted in an overall **yield increase of 14%** over the Grower Standard. This yield increase for Treatment 3 resulted in a return-to-the-farm increase of almost **\$3,500 more per acre**, a **15% increase in dollars back** to the farm (see **Figure 3**). Factoring in the cost of the additional Huma Gro® products applied to achieve this yield increase, the return on investment (ROI) was calculated to be over \$2,500/acre (**289%**).