



OBJECTIVE

To assess the yield response of adding Duo Maxx fertilizer additive with liquid fertilizer injected throughout the growing season for field tomato.

SITE LOCATION

Thonotosassa, FL

RESEARCHER

Florida Ag Research
Contract Research Organization

STUDY INFORMATION

Transplant Date	11-Sept-2020
Harvest Dates	18-Nov-2020, 24-Nov-2020, 8-Dec-2020
Variety	Charger
Population	4,585

KEY FINDINGS

Increased Lbs of Marketable Tomato by

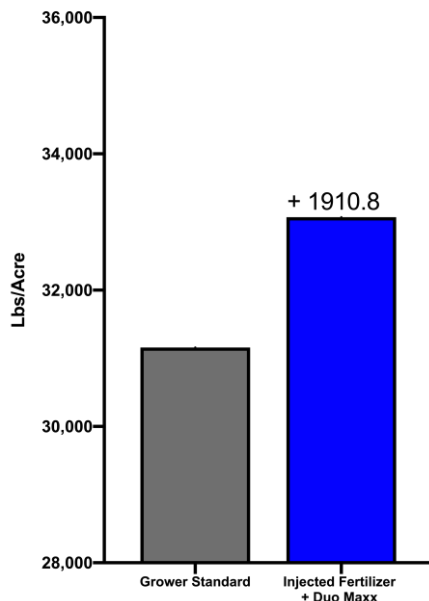
1910.8 lbs/a

Duo Maxx treatment of injected fertilizer during the season generated an ROI of

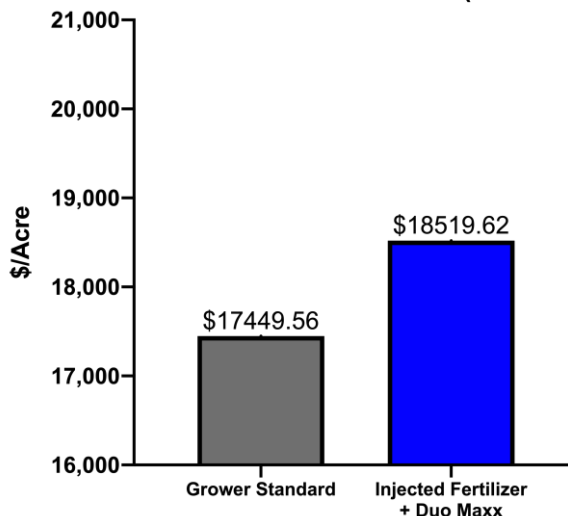
\$1046.88/a

Cost of Duo Maxx to treat 84.37 gal= \$23.19/A
Marketable Tomatoes priced at \$14/box for 25 lbs

Total Marketable Yield of Tomato
(Thonotosassa, FL)



Gross Revenue Generated from
Marketable Tomato Yield (\$14/box)



APPLICATION

Treatment	Application Rate
Grower Standard Liquid Fertilizer	4-2-9 (84.37 gal/ac total during season)
Grower Standard Liquid Fertilizer + Duo Maxx	4-2-9 (84.37 gal/ac total during season) + 2 Qt/Ton

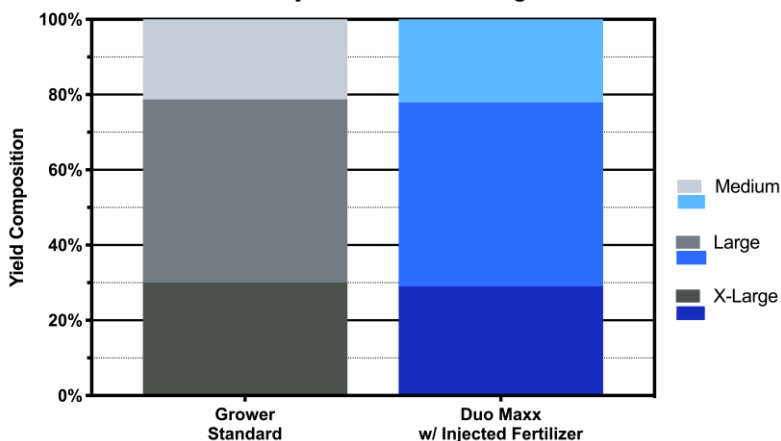
MATERIALS AND METHODS

This study was conducted in a research farm field with conventional growing practices on a soil comprised of 92.8% sand, 4.4% silt and 2.8% clay. Fertilizer practices followed University of Florida guidelines for up-front N & K (21-0-21, 95 lbs/a) banded in close proximity to the transplant zone. The design of the study was randomized complete block with 7 replications for the treatment. Plots consisted of four 25' x 6" long with plants spaced 19" apart to simulate an acre population of 4,585 plants. 'Charger' variety tomato was used for the trial and transplanted on September 11. A consistent irrigation/fertigation strategy was followed weekly with injections of 4-2-9 liquid fertilizer until harvest with a total volume of 84.37 gallons/acre of liquid fertilizer used through the growing season. All IPM measures were uniformly taken across the control and the treatment plots. For the treatment, Duo Maxx was injected with each liquid fertilizer application during the season at a rate of 2 qts/ton of liquid fertilizer. Plots were allowed to mature and harvested on three separate dates (November 18, November 24, December 8). Total weight, count and sizing category of tomatoes from each replicate was tallied to calculate yield on a per acre basis and size distribution.

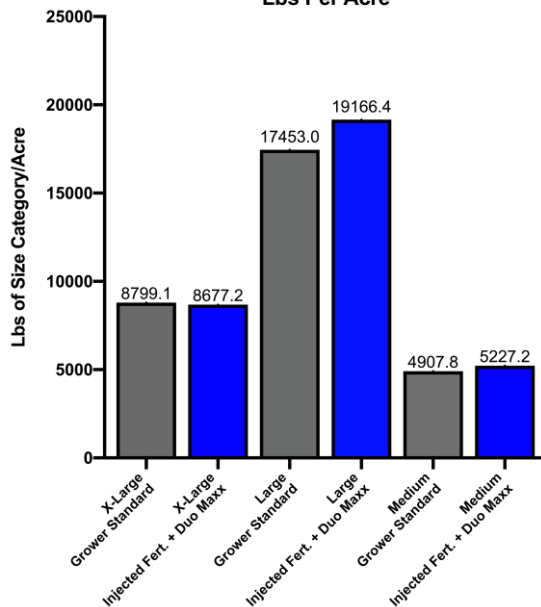
RESULTS AND CONCLUSIONS

Injected fertilizer treated with Duo Maxx improved marketable tomato yield over the same rate of liquid fertilizer without the Duo Maxx additive by 1910.8 lbs/acre. Return on investment was calculated at retail cost of Duo Maxx of \$100/gallon and marketable tomato boxes of 25-lbs at \$14/box. This resulted in an ROI from treating the injected fertilizer with Duo Maxx of \$1046.88/acre.

Yield Composition for Fruit with Duo Maxx Treatment on Injected Fertilizer During Season



Treatment Impact on Tomato Size Lbs Per Acre



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