



OBJECTIVE

To assess the yield response of adding Duo Maxx fertilizer additive at a rate of 1 quart/acre with liquid fertilizer injected throughout the growing season for bell pepper.

SITE LOCATION

Thonotosassa, FL

RESEARCHER

Florida Ag Research
Contract Research Organization

STUDY INFORMATION

Transplant Date	11-Sept-2020
Harvest Dates	5-Nov-2020, 11-Nov-2020, 23-Nov-2020
Variety	Aristotle
Population	13,403

KEY FINDINGS

Increased Lbs of Marketable Bell Peppers by

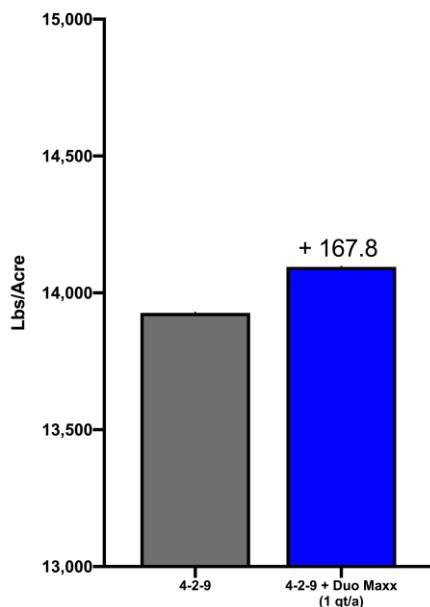
167.8 lbs/a

Duo Maxx treatment of injected fertilizer generated an ROI of

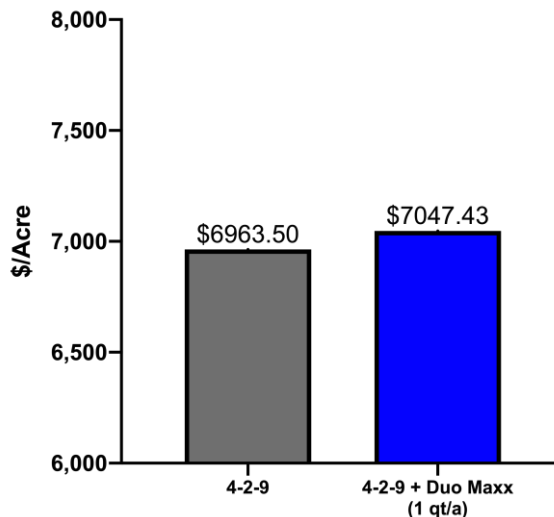
\$58.92/a

*Cost of Duo Maxx to treat fertilizer = \$25.00/A
Marketable Peppers priced at \$14/carton for 28 lbs*

Total Marketable Yield of Bell Pepper
(Thonotosassa, FL)



Gross Revenue Generated from Marketable Bell Pepper Yield (\$14/carton)



APPLICATION

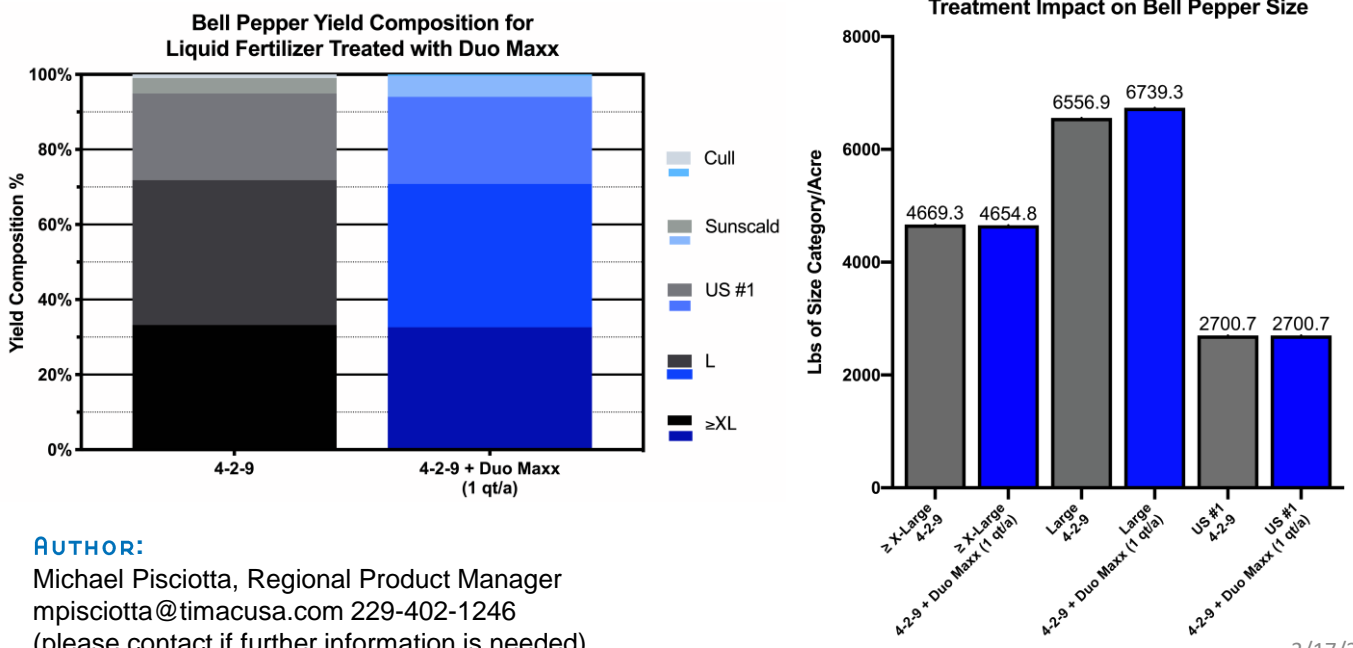
Treatment	Application Rate
Grower Standard Liquid Fertilizer	4-2-9 (84.37 gal/ac total throughout season)
Grower Standard Liquid Fertilizer + Duo Maxx	4-2-9 (84.37 gal/ac total throughout season) + 1 Qt/A

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. Fields where the study was conducted utilized existing plastic bedding, and soil levels were analyzed for macronutrient content to ensure even and adequate pre-plant nutrient loads. The study design was randomized complete block with 7 replications for the treatment. Plots consisted of four 25' x 6" long with plants spaced 13" apart to simulate an acre population of 13,403 plants. 'Aristotle' variety bell pepper 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 liquid fertilizer during the growing season to achieve a total application rate of 1 quart per acre. Plots were allowed to mature and harvested on three separate dates (November 5, November 11, November 24). Total weight, count and sizing category of bell pepper from each replicate was tallied to calculate yield on a per acre basis and size distribution. Sunscald and cull bell peppers were also harvested at the same intervals and used to factor into the 'yield composition' measurement.

RESULTS AND CONCLUSIONS

Liquid fertilizer treated with Duo Maxx (1 qt/a) improved marketable bell pepper yield over the same rate of liquid fertilizer without the Duo Maxx additive by 167.8 lbs/acre. Return on investment was calculated at retail cost of Duo Maxx of \$100/gallon and marketable bell pepper cartons of 28-lbs at \$14/carton. This resulted in an ROI from treating liquid fertilizer with Duo Maxx of \$58.92/acre.



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