

# OM 3-2-4 and OM Micros Liquid Fertilizers Increase Organic Cantaloupe Yield 120%

Research Report

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 Huma® Products: OM 3-2-4 and OM Micros

## Summary

In this study of Huma® organic macronutrient (OM 3-2-4) and micronutrient (OM Micros) liquid products compared with a grower’s standard treatment on organic cantaloupes applied under field conditions in Arizona, the Huma® organic treatments powered by a proprietary Micro Carbon Technology® resulted in a 120% yield increase with a 3-to-1 return on investment (ROI).

## Objective

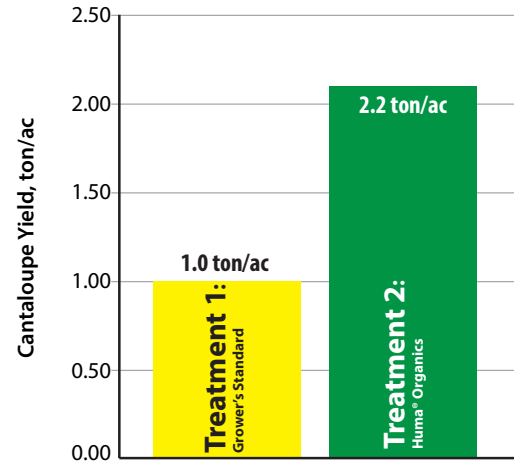
The objective of this study was to evaluate the yield and net gain of cantaloupe crop production using organic fertilizers under field conditions.

## Materials & Methods

The study was conducted by Helena Agri-Enterprises at The University of Arizona Yuma Agricultural Center, in Yuma, Arizona, which has Holtville clay soil. The trial was conducted as a randomized complete block design with five replications. Each replication consisted of 30 feet long by 80 inches wide beds. Treatments were applied to cantaloupe (*Cucumis melo cantaloupensis*) cultivar ‘Caribbean gold’ that was planted on August 17 and harvested at two different dates of November 6 and 12. The plants were watered by furrow irrigation method. Table 1 outlines the grower standard and the organic fertilizers from Huma® (OM 3-2-4 and OM Micros).

**Table 1.** Treatment Description for Organic Production of Cantaloupe

Treatment	Products	Amount	Rate Unit	Timing	Placement
1	Grower Standard Macro Nutrition- H2H 3-2-1	10	gal/A	Early in season	Soil
	Grower Standard -Liquid Onyx 0-0-1	2	gal/A	Early in season	Soil
	Grower Standard -Liquid Westbridge Biolink 3-3-3 Plus Micronutrients	1	qt/A	5-6 True leaves	Foliar
	Grower Standard Macro Nutrition- H2H 3-2-1	20	gal/A	At Flowering	Soil
	Grower Standard Macro Nutrition- H2H 3-2-1	20	gal/A	Fruit set	Soil
	Grower Standard -Liquid Westbridge Biolink 3-3-3 Plus Micronutrients	1	qt/A	Mid bulking	Foliar
	Grower Standard -Liquid Westbridge Biolink Cal-N 5%	1	qt/A	Mid bulking	Foliar
	Grower Standard -Liquid Westbridge Biolink 0-0-6	1	qt/A	Mid bulking	Foliar
	Grower Standard -Liquid Westbridge Biolink Cal-N 5%	2	qt/A	Late bulking	Foliar
	Grower Standard -Liquid Westbridge Biolink 0-0-6	1	qt/A	Late bulking	Foliar
2	Grower Standard Macro Nutrition- H2H 3-2-1	10	gal/A	Early in season	Soil
	Grower Standard -Liquid Onyx 0-0-1	2	gal/A	Early in season	Soil
	Huma® 3-2-4	2.5	gal/A	5-6 True leaves	Foliar
	Huma® Micros	1	qt/A	5-6 True leaves	Foliar
	Grower Standard Macro Nutrition- H2H 3-2-1	20	gal/A	At Flowering	Soil
	Grower Standard Macro Nutrition- H2H 3-2-1	20	gal/A	Fruit set	Soil
	Huma® 3-2-4	2.5	gal/A	Mid bulking	Foliar
	Huma® Micros	1	qt/A	Mid bulking	Foliar
	Huma® 3-2-4	2.5	gal/A	Late bulking	Foliar
	Huma® Micros	1	qt/A	Late bulking	Foliar



**Figure 1.** Cantaloupe Yield, Grower Standard vs. Huma® Organics

## Results

Huma® organic fertilizers increased cantaloupe yield from 1 ton/acre to 2.2 ton/acre when compared with the grower’s standard program (Figure 1). This yield result reflects combined November 6 and 9 harvests. The first harvest for the grower’s standard was at 0.9 ton/acre, while the first harvest for the Huma® organic treatment yielded 1.8 ton/acre. The melon sizes for both treatments at both harvests were 9 and 12. The Brix values did not differ between these two treatments, which averaged at about 10.

## Conclusions

**The yield difference was much higher for the Huma® organic treatment, by about 120%.** The return on investment was at 3 to 1 (input costs for Huma® organic fertilizers were about 6% higher than the Grower’s Standard).

Organic cantaloupe growers can rely on Huma® organic fertilizers for a large net gain in production.