

AGRI-GRO ULTRA #2

2016

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INTRODUCTION/OBJECTIVES:

To evaluate the Agri-Gro program of applying Ultra on tomato.

METHODS AND MATERIALS:

The 'at transplanting' application was sided dressed in a trench alongside the tomato plants at a depth of 3-4 inches. All other treatments were applied by back pack sprayer.

TREATMENTS:

1. Untreated control
2. 16 oz/ac of ULTRA in-furrow at planting
16 oz/ac of ULTRA at 3-4 true leaves
16 oz/ac of ULTRA at first bloom
16 oz/ac of ULTRA at first fruit set.

Site Location: Field DF-8, San Juan Ranch, Dos Palos, CA

Host Crop Variety: Heinz 4707

Plot Description and Size: five sixty inch beds by 50 feet long, replicated six times

Experimental Design: Randomized Complete Block

Application Conditions:

FIRST APPLICATION – (in furrow)

Date: May 7, 2016

Time: 12:00 noon

Wind: Light from W

Sky: Drizzling rain

Temperature: 71 F



SECOND APPLICATION (3-4 trifoliate leaves)

Date: May 16, 2016
Time: 3:00 p.m.
Wind: Light NW
Sky: High cirrus clouds
Temperature: 80 F



THIRD APPLICATION (first bloom)

Date: May 26, 2016
Time: 10:00 a.m.
Wind: Calm
Sky: Clear
Temperature: 82 F



FOURTH APPLICATION: (First fruit)

Date: June 8, 2016
Time: 11:00 a.m.
Wind: Light W
Sky: Clear
Temperature: 88 F



RESULTS:

Table 1 shows the field weights of tomatoes in each treatment of each replication, and their conversion to tons per acre. Treatment values within each replication were close to one another indicating a good test with minimum variation.

The average weight of the untreated check was 46.95 tons/acre while the average of the six Ultra treated plots was 55.40 tons/acre.

Table 1 – Individual plots weights of two treatments replicated six times

REP	TREATMENT	WEIGHT (lbs.)	TONS/ACRE
1	1	89.6	44.8
1	2	105.4	52.71
2	1	79.94	39.97
2	2	102.9	51.45
3	1	98.72	49.11
3	2	114.94	57.47
4	1	75.96	37.98
4	2	101.26	50.63
5	1	110.88	55.44
5	2	134.62	67.31
6	1	108.80	54.40
6	2	105.64	52.82



May 7, 2016 – date of transplanting and in furrow application



May 30, 2016 – date of 3-4 trifoliate leaf stage and second application



May 26, 2016 – Date of first bloom application and third application



June 8, 2016 – Date of first small fruits and fourth application



July 18, 2016 – Test in progress



Sept 7, 2016 – Hand harvesting tomato plots



Sept 7, 2016 – Commercial harvesting in the plot field

