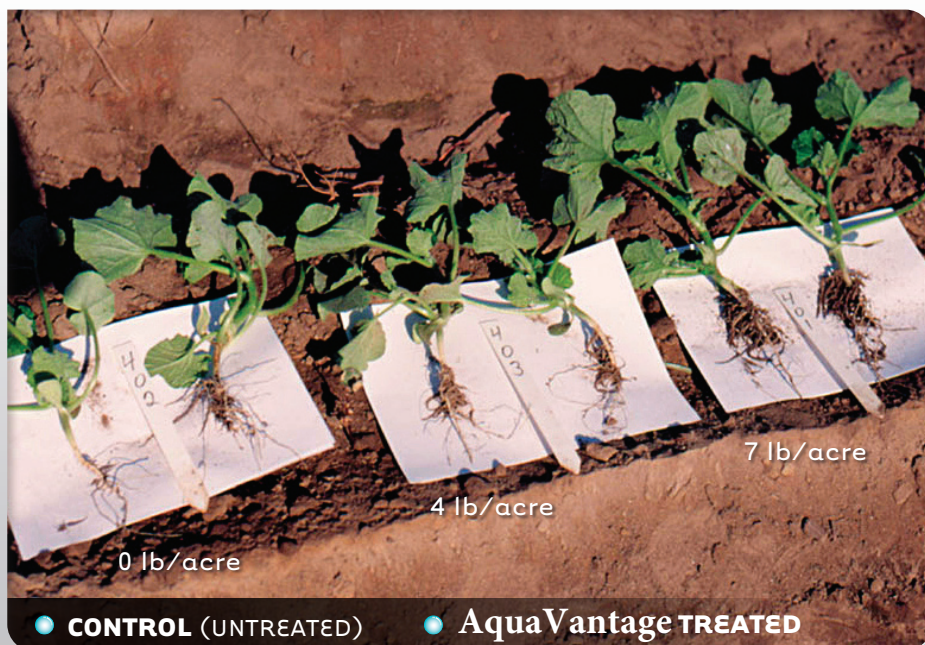




CASE STUDY

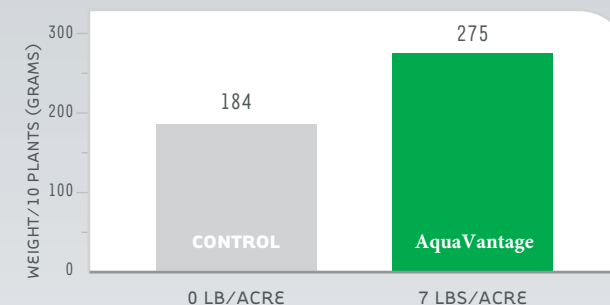
Cantaloupe



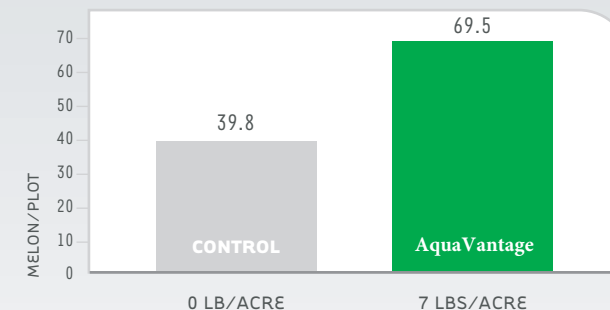
Research compared Control and AquaVantage-treated cantaloupe in a stressed condition, with both plants receiving 50% of typical irrigation. Test bed was pre-irrigated and AquaVantage applied with seeds using a microband, ground-drive granule applicator. AquaVantage-treated cantaloupe bloomed three days earlier; developed significantly greater plant weight after 18 days; and greater root and plant weight, stem diameter and plant height after 25 days. Greater leaf water potential beyond 49-day evaluation and reduced time to harvest.

Melon Plant Weight* (Day 25)

* WEIGHT OF 10 PLANTS CUT OFF AT SOIL LEVEL



Melon Count (Day 75)



TRACS

Visalia, California

Technical Research and Consulting Service (TRACS) provides extensive professional consulting and contract services for plant and chemical research under the direction of Ron Kukas.

CANTALOUPE MOISTURE STRESS TRIAL • TRACS



GENERAL TRIAL INFORMATION

Investigator: RD Kukas

TRIAL LOCATION

City: Visalia

State/Prov: California, USA

CROP DESCRIPTION

Variety: Hale's Best Jumbo

Study Design: RCB

Planting Date: 19-June-1997

Emergence Date: 26-June-1997

Tillage Type: Conventional

Replications: 4

Grow Stage: In fur

Field Preparation/Plot Maintenance:

Disc, Furrow, Pre-irrigate

MOISTURE CONDITIONS

Date	Amount (in)	Type
09-Jun-1997	4.0	furrow irr
10-Jul-1997	3.0	furrow irr
31-Jul-1997	3.0	furrow irr
15-Aug-1997	3.0	furrow irr

RESEARCHER'S SUMMARY

The trial area was pre-irrigated and the cantaloupe seed was planted to moisture. AquaVantage treatments were applied in-furrow with the seed using

a microband ground driven granule applicator. Evaluations made 11 days after planting show no significant differences in stand or plant growth.

At 18 days after planting there was a significant increase in the weight of the plants in the 7 lb/a rate of AquaVantage when compared to the untreated check. The leaf water potential in the AquaVantage treatments showed a 3 bar improvement over the check at 18 days after planting. Although not always a significant difference, the plants in the 7 lb/a rate had a greater root and plant weight, stem diameter and plant height when evaluated at 25 days after planting. The 7 lb/a rate continued to show less stress and had a greater leaf water potential reading when evaluated at 49 days after planting.

It was also observed that the plants in the high rate started blooming 3 days before the other treatments and the crown set was also greater.

Due to the stress, the harvest data reveals considerably more melons were harvested earlier and the weight of the melons was greater in the AquaVantage treatment at 7 lbs/a when compared to the 4 lb/a rate and the check.

The trial area received approximately half the water that would have been used to grow a normal crop.

TREATMENT NAME		AquaVantage		CONTROL
Application Rate AquaVantage AV 16-30		7 lbs/ac	4 lbs/Ac	-
01-July-1997 11 days**	Number of plants per 10ft of row	59.90 a	66.63 a	66.45 a
	Weight (g) of 10 plants cut off at soil level	6.45 a	6.25 a	6.10 a
	Average height (in) per plant	0.773 a	0.820 a	0.853 a
08-July-1997 18 days **	Weight (g) of 10 plants cut off at soil level	39.68 a	31.27 a	28.53 a
	Leaf water potential (bars)	8.3 a	8.3 a	11.5 a
08-July-1997 18 days **	Weight (g) of 10 plants cut off at soil level	34.70 a	28.60 a	26.07 a
	Weight of tops (g) from 10 plants	275.13 a	197.40 ab	184.60 b
	Average stem diameter (32nds) per stem	9.25 a	8.52 b	8.40 b
	Average height (in) per plant	6.18 a	6.10 a	5.30 a
23-July-1997 33 days **	Leaf water potential (bars)	3.0 a	3.0 a	3.8 a
30-July-1997 40 days **	Leaf water potential (bars)	11.8 a	12.8 a	13.5 a
	Stress rating (0-10)	1.3 b	2.3 ab	2.8 a
14-August-1997 54 days **	Leaf water potential (bars)	14.8 a	15.0 a	14.5 a
	Stress rating (0-10)	2.3 a	2.8 a	2.8 a
28-August-1997 68 days **	Number of melons harvested per plot	30.5 a	11.0 ab	4.3 b
	Weight (lbs) of melons harvested	56.50 a	14.58 a	5.95 a
	Average weight per melon	1.75 a	1.17 a	1.55 a
05-Sep-1997 75 days **	Number of melons harvested per plot	69.5 a	46.8 b	39.8 b
	Weight (lbs) of melons harvested	88.35 a	49.45 ab	42.78 b
	Average weight per melon	1.25 a	1.00 a	0.98 a

Desert King Cantaloupe



● AquaVantage TREATED ON LEFT



GENERAL TRIAL INFORMATION

Grower: Johnson Plants

Location: Immokalee, FL

Crop: Desert King Cantaloupe

Planting Date: 12/20/06

Evaluation Date: 2/6/07

Rate AV 16-30: 1 lb per cubic yard

Soil Mix: Heco Soil Mix

Application: Soil mix preplant

Average Plant Height 5 plants per rep			
Rep	Treated	Untreated	Increase
1	5.45 in	4.10 in	32.9%
2	5.45 in	4.40 in	23.9%
3	4.85 in	4.45 in	9%
4	5.20 in	4.0 in	30%
Avg.	5.24 in	4.24 in	23.6%

Average Plant Weight with Soil 4 plants per rep			
Rep	Treated	Untreated	Increase
1	90 g	68 g	32.4%
2	81 g	60 g	35%
3	75 g	72 g	4.2%
4	81 g	64 g	26.6%
Avg.	82 g	66 g	24.2%

Average Plant Weight without Soil 4 plants		
Treated	Untreated	Increase
18 g	13 g	38.5%