

# BHN World Conference 2018

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Doug Greer  
US Sales Director



# BHN World Conference 2018

Introducing Mike Bower  
Midwest U.S. Sales Manager/Agronomist





# BHN World Conference 2018

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Barrett Smith  
Eastern U.S. Sales Manager





# 2017 Premier Fertilizer Company – PROMAX<sup>®</sup>, VITOL<sup>®</sup>, BREAKOUT<sup>®</sup> on Squash



We replaced their fumigation with 1 gallon PROMAX<sup>®</sup> preplant, then another ½ gallon 14 days post planting. VITOL<sup>®</sup> was applied at 16 oz twice, at 7 and 14 days post-planting. BREAKOUT<sup>®</sup> was applied at 32oz 21 days after planting. (Biologicals were also applied.) Unfortunately, a white fly virus caused severe yield loss on all fields.

Growers standard yielded 1.5 bins/acre.  
Huma Gro yielded 3.85 bins/acre.

Fields are side by side.





# 2017 Premier Fertilizer Company – PROMAX® & ZAP® on Cucumbers



The farmer saw nematode damage and asked for help after planting. Applications of 1 gallon PROMAX® and then 1 gallon of ZAP were both applied mid-season.

Grower's standard yielded 12 bins/acre.

Huma Gro yielded 22 bins/acre.

Fields are side by side.

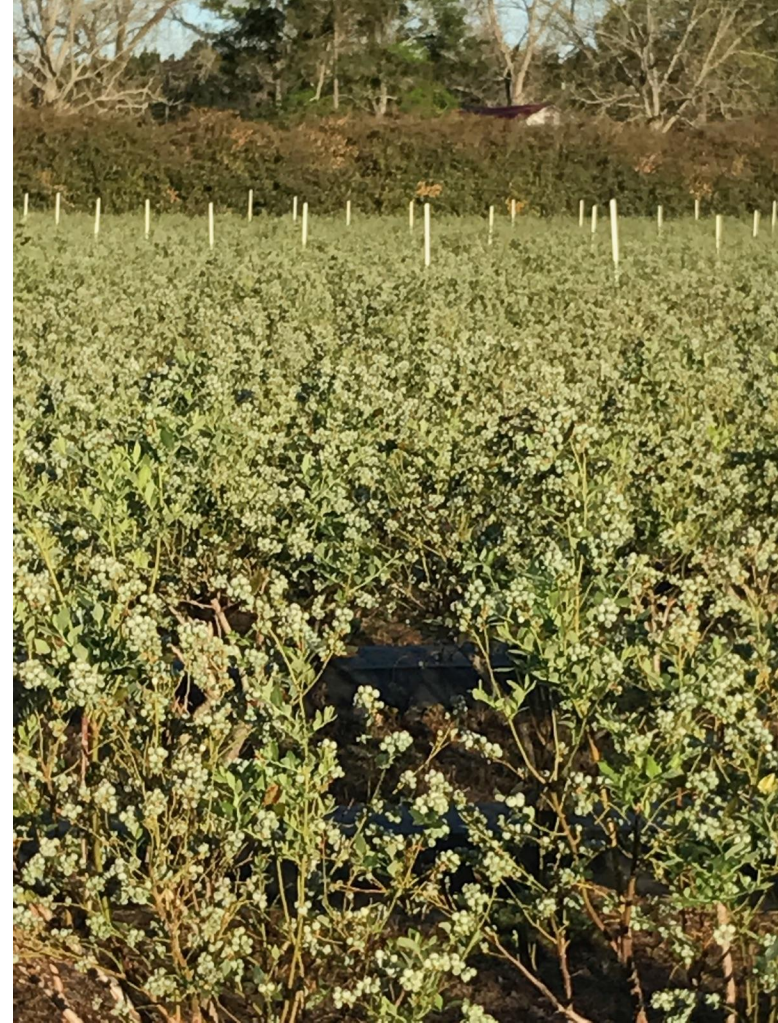




# 2017 Premier Fertilizer Company - Blueberries in Georgia



- Frost destroyed the majority of the blueberry crop in 2017. One farmer with overhead irrigation was in his first year of switching to Huma Gro<sup>®</sup>. Similar varieties that also had frost protection yielded around 8000 lb/acre, but this farmer did over 10,000 lb/acre.





# Mark Gregory - T&M Farms – Peonies, SUPER PHOS<sup>®</sup> results

One farmer in Arkansas has been using more and more Huma Gro<sup>®</sup> each year. His interview with our marketing team was a big help. Jason Felton Interview: <https://vimeo.com/228243673>

This year we sent 2 tankers of SUPER PHOS<sup>®</sup> and 1.5 trucks of other products (VITOL<sup>®</sup>, BREAKOUT<sup>®</sup>, SUPER Potassium<sup>®</sup>, MAX PAK<sup>®</sup>, FERTIL SOIL<sup>®</sup>, X-TEND<sup>®</sup>, CROP GUARD, ZAP, etc.) We replaced all their granular Phosphorus with SUPER PHOS on all 8k acres (Corn, Soybeans, Peanuts, Cotton).

100% foliar program with their peonies – used PROUD 3, PROMAX, Z-MAX, CROP-GARD<sup>®</sup>, SULFUR, and COPPER to replace conventional pesticides, and VITOL<sup>®</sup>, BREAKOUT<sup>®</sup>, and ZAP<sup>®</sup> for added growth.

When the tankers of SUPER PHOS<sup>®</sup> arrived, they accidently mixed it straight with another competitor's product. Didn't have time to deal with it at the moment and so they sprayed the good stuff at the top and were ready to throw away the rest (maybe 500 gallons). Competitor didn't offer any solutions or help . . . but with the help of our lab and Mike Boyd, we turned muck and solid crystals at the bottom back into solution by adding 1 part water and ½ part SUPER Potassium<sup>®</sup>. Lab helped with analysis and density and we saved them a bunch of money.

Results from SUPER PHOS<sup>®</sup>: Phosphorus levels all across the board with every crop this year have been outstanding! No dry Phosphorus was applied anywhere.

Ready to do more next year!



# Mark Gregory - T&M Farms – SUPER Potassium® results

- According to soil tests, almost all of their fields were highly deficient in K.

"Picnic Mallory" field had a recommendation of 145 lb of K/acre.

- Used 240lbs dry KCl broadcast to supply all K.
- 1.41%K (deficient) first lab test

"Banks Rice" field had a recommendation of 200 lb of K/acre.

- Used 3 gallons/acre broadcast of SUPER Potassium® to supply 120 lb/K<sub>2</sub>O (Total 15 lb/acre of K<sub>2</sub>O). No other K was put on.
- 1.83% K (almost high) first lab test





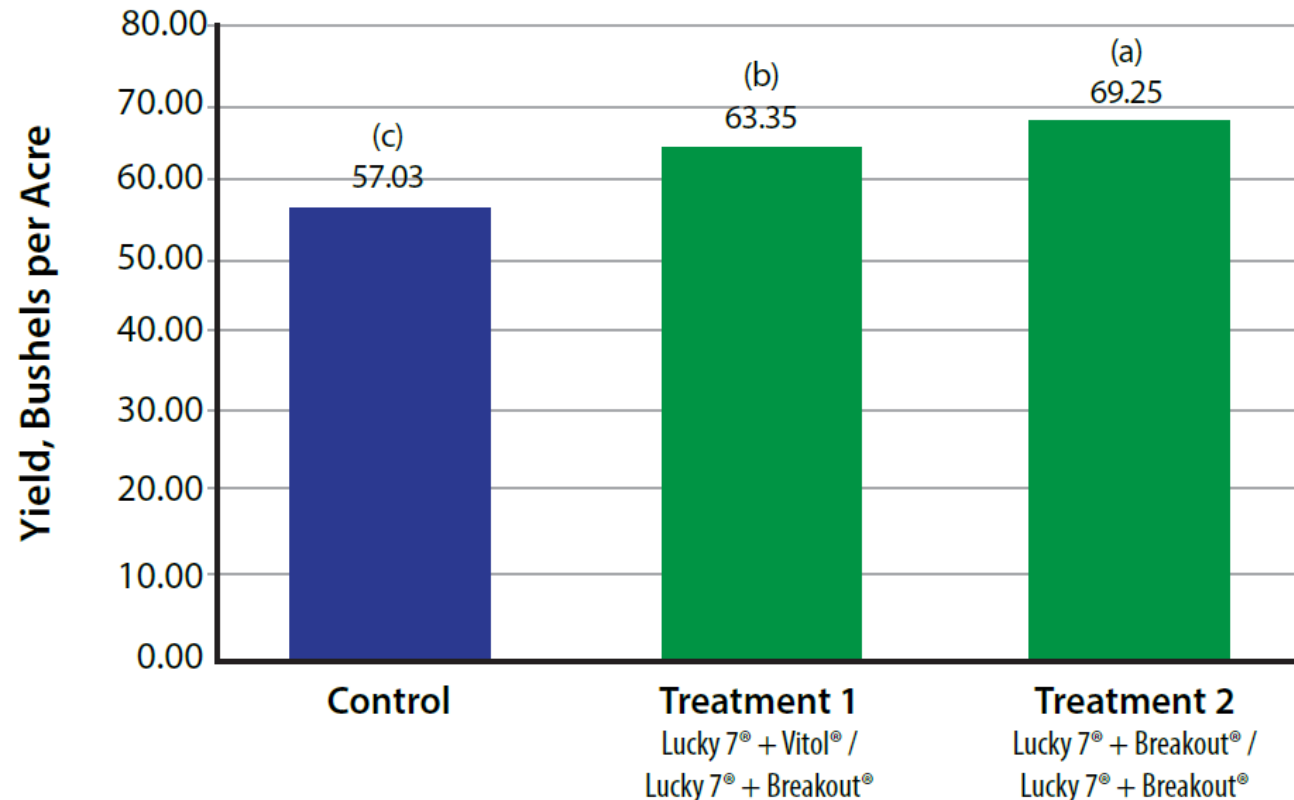
# Mark Gregory - JACKPOT, CALCIUM, SUPER K on Sweet Potatoes 2017 and VITOL, BREAKOUT on Cotton 2018

- “What I did last year was 64oz of JACKPOT and 32oz of CALCIUM twice approximately 2 weeks apart on Sweet Potatoes prior to harvest. The problem they were having was trouble with the vegetative growth at the end of the season when they tried to mow the fields with a bush hog. Usually its really green and growthy and doesn't cut well prior to harvest. The JACKPOT and CALCIUM gave them extreme improvement on harvest conditions plus increased sizing and improved skin set than the ones without the Huma Gro applications.”
- “Farmer had planted a field of cotton extremely late (June 4<sup>th</sup>). He wanted to give it a boost since he knew he was going to lose money with this field. Last year was a stellar year for cotton and this field did better than last year as well as his earlier planted cotton this year! Instead of 1300lbs/acre, he yielded 1600lbs/acre. We did an early shot of 1qt/acre VITOL, and then 3 shots of BREAKOUT every 2 weeks starting at Pinhead Square. Worth every penny for Huma Gro.”

# 2017 Research from Agricenter International – VITOL<sup>®</sup>, BREAKOUT<sup>®</sup>, LUCKY 7<sup>®</sup> on Soybeans

- Treatment 1 increased Yield 11%.
- Treatment 2 increased Yield 21%.
- Interesting that we applied BREAKOUT<sup>®</sup> at a vegetative stage and saw better results – probably because we had more branching (and then more fruiting) with BREAKOUT<sup>®</sup> than getting more vegetation and vigor with VITOL<sup>®</sup>.
- Results with LUCKY 7<sup>®</sup> thrown in the mix were better than VITOL and BREAKOUT by itself.

<b>Treatments</b>	Date: 06/28 Growth Stage: VC <b>Products/ac</b>	Date: 08/01 Growth Stage: R1 <b>Products/ac</b>
Control	Grower's Standard	Grower's Standard
Treatment 1	1 qt Lucky 7 <sup>®</sup> 1 qt Vitol <sup>®</sup>	1 qt Lucky 7 <sup>®</sup> 1 qt Breakout <sup>®</sup>
Treatment 2	1 qt Lucky 7 <sup>®</sup> 1 qt Breakout <sup>®</sup>	1 qt Lucky 7 <sup>®</sup> 1 qt Breakout <sup>®</sup>

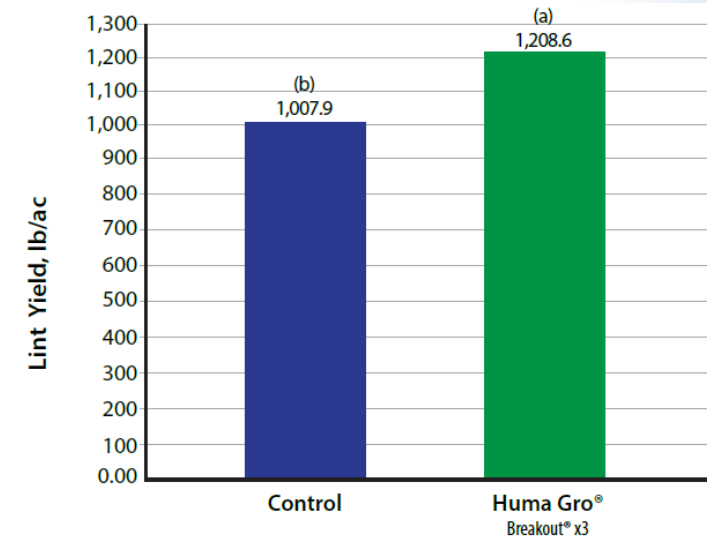
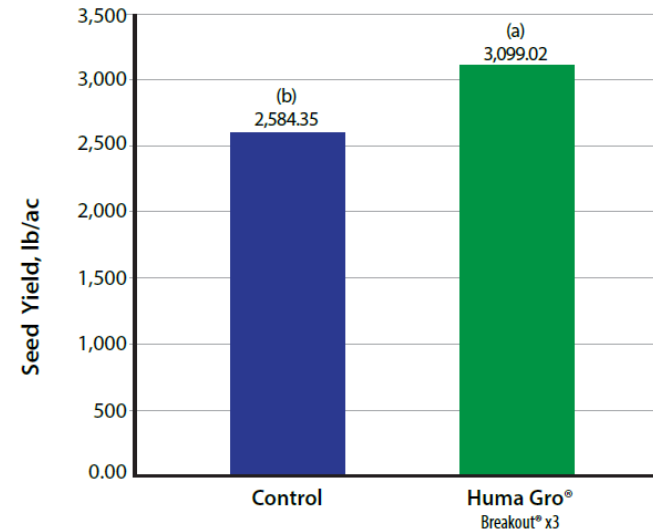




# 2017 Research from Agricenter International - BREAKOUT® on Cotton

Treatments	Date: 06/26 Growth Stage: PHS Products/ac	Date: 07/10 Growth Stage: PHS + 2 weeks Products/ac	Date: 07/24 Growth Stage: PHS + 4 weeks Products/ac
Control	Grower's Standard	Grower's Standard	Grower's Standard
Huma Gro®	1 qt Breakout®	1 qt Breakout®	1 qt Breakout®

- Yield increased 20%.
- BREAKOUT® by itself performed better than LUCKY 7® with BREAKOUT®

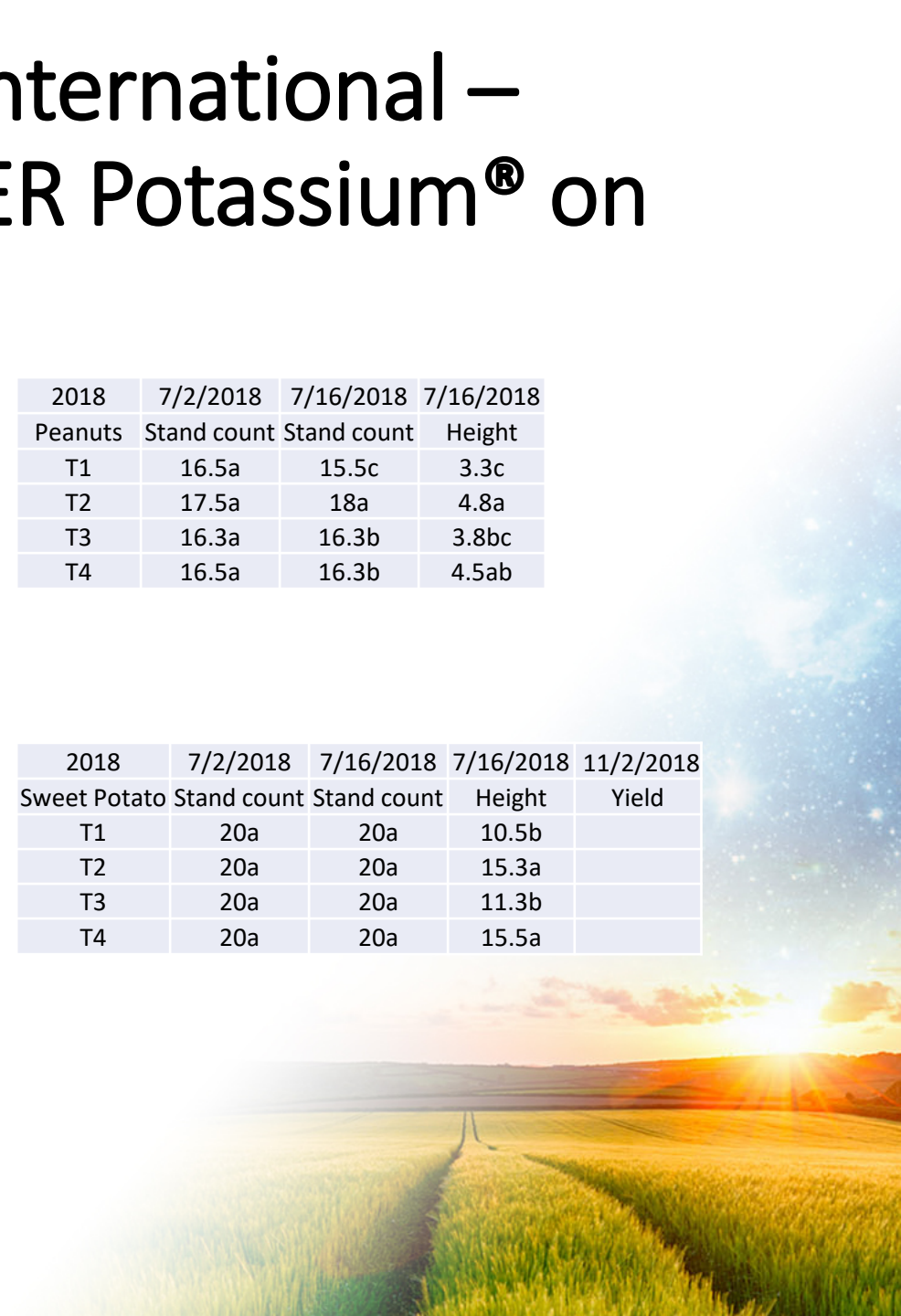


# 2018 Research from Agricenter International – ZAP<sup>®</sup>, JACKPOT<sup>®</sup>, CALCIUM, SUPER Potassium<sup>®</sup> on Sweet Potatoes and Peanuts

- Sweet Potato and Peanut Treatments:
- T1) Grower's Standard
- T2) 64oz ZAP<sup>®</sup> Broadcast around planting
- T3) 64oz JACKPOT<sup>®</sup>, 32oz CALCIUM, 16oz SUPER Potassium<sup>®</sup> at 15 and 30 days prior to harvest
- T4) T3 + T2 (ZAP<sup>®</sup> in furrow or transplant water)

2018	7/2/2018	7/16/2018	7/16/2018
Peanuts	Stand count	Stand count	Height
T1	16.5a	15.5c	3.3c
T2	17.5a	18a	4.8a
T3	16.3a	16.3b	3.8bc
T4	16.5a	16.3b	4.5ab

2018	7/2/2018	7/16/2018	7/16/2018	11/2/2018
Sweet Potato	Stand count	Stand count	Height	Yield
T1	20a	20a	10.5b	
T2	20a	20a	15.3a	
T3	20a	20a	11.3b	
T4	20a	20a	15.5a	





# ZAP<sup>®</sup> on Caladiums in Florida



Farmer applied ZAP<sup>®</sup> after fumigation, but told me the product didn't work. We walked where the ZAP<sup>®</sup> was applied and then he scratched his head and admitted that it worked. Strips looked a lot better. Had to walk the fields to see.



# ZAP<sup>®</sup> on Coffee at Disneyworld Epcot



Before



After



The first thing the greenhouse manager told me after using ZAP<sup>®</sup> was that his coffee tree looks a ton better. Struggling yellow on the left from nematode damage. Healthy, deep green on the right.



# VITOL® and BREAKOUT® on Coreopsis in Florida



BREAKOUT®



Control



VITOL®

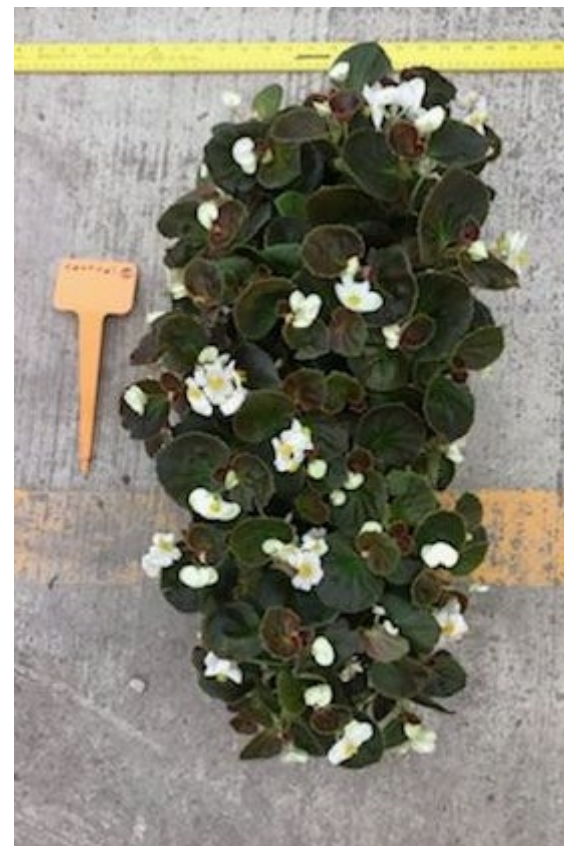




# VITOL® and BREAKOUT® on Begonias in Florida



BREAKOUT®



Control



VITOL®





# IRO-MAX<sup>®</sup> on Lychees in Florida

High													
Sufficient		20 acres											
Low													
Deficient													
	N	P	K	Mg	Ca	S	B	Zn	Mn	Fe	Cu	Sample ID	
8/31/2017	2.1	0.19	0.87	0.37	0.95	0.17	55.6	46.4	133	43	17.4	32	
8/31/2017	2.11	0.18	0.84	0.36	0.92	0.16	53.5	44.7	128	42	17	33	
8/31/2017	2.13	0.17	0.8	0.35	0.98	0.15	47.6	35.4	108	40	17.6	34	
8/31/2017	2.31	0.18	0.86	0.36	0.88	0.17	54.9	45.4	138	46	18.1	35	
9/11/2017	Hurricane Irma												
11/5/2017	1 quart/acre IRO-MAX in <b>drip</b>												
11/20/2017	2.03	0.25	1	0.42	1.44	0.23	39.2	67.4	132	64	14.1	32 and 33	
11/20/2017	2.07	0.24	0.82	0.6	1.92	0.26	47.2	84.6	213	50	17.2	34 and 35	

# IRO-MAX<sup>®</sup> on Lychees in Florida

- I know we typically foliar micronutrients, but in the case that we can only fertigate . . . we still have outstanding success with 1 quart/acre.
- IRO-MAX<sup>®</sup> injected AFTER November 20th so sample is a good representation of IRO-MAX<sup>®</sup>. Lab recommendations were: 3 lb foliar S, 5-6 lb chelated Fe. We applied 0.11 lb S, 0.22 lb Iron with IRO-MAX<sup>®</sup>. Results?
- “Good flushes. 6 –18 inches. Leaves very full, look more like banana leaves! Greened everything right up. Looks amazing! Been trying for a full year to bring up my Iron and Sulfur levels without success. I'll be doing this dose again as well as foliar BREAKOUT<sup>®</sup>.”



# Citrus Greening in Florida

2017: all trials were 'washed' out from Hurricane Irma. However after bunch of different products applied, lab technician commented how impressive his levels were.

2018: Avon Park, Florida:  
July samples over the last 5 years for citrus grower has been 1.47% P (deficient)

Over several sprays, applied roughly 1.5 gallons of SUPER PHOS<sup>®</sup>, some CALCIUM, and some 44 MAG<sup>®</sup> in his already heavy tank mixes. His 2018 July sample was 1.93% P (FINALLY in the sufficient range).

Mg and Ca levels were about average with his previous years, but I don't think he added enough 44 MAG<sup>®</sup> and CALCIUM to tell in leaf since it all went to flowering/fruiting. Should have done a check field.

Very pleased with SUPER PHOS<sup>®</sup>. Wants to use SUPER Potassium<sup>®</sup> for the K and an alkaline buffer in his tank mix since these 3 were pretty acidic.

Yields coming in November.



**MICRO CARBON TECHNOLOGY<sup>®</sup>**

***PROVEN  
EFFICIENCY  
For Increased  
PROFITS!***

THIS IS A PROSPEROUS  
TIME OF LIFE FOR YOU  
PANDA EXPRESS • PANDA INN

**THANK YOU**



Josh Bowman – Mesquite, New Mexico













































# WRT

**PROMAX**<sup>®</sup> in California





# Promax Almond Nematode Trial

First leaf almond orchard, non fumigated, treated with one application of Promax through double line drip.

Rate: 1gallon per acre

**A & L WESTERN AGRICULTURAL LABORATORIES, INC.**  
1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



Grower: Escalon Almonds #2

## Nematode Analysis Report

Date: 07/24/2017

Number of nematodes recovered per 100cc of soil																			
Lab Number	Sample Number	Crop Past/Present	Root-Knot (Meloidogyne)	Lesion (Pratylenchus)	Stunt (Tylenchorynchus)	Spiral (Helicotylenchus)	Stubby-Root (Trichodorus)	Dagger (Xiphinema)	Ring (Criconeimoides)	Larva	Adult	Egg	CYST	Slings (Belonolaimus)	Lance (Hoplolaimus)	Sheath (Hemicriconeimoides)	Pin (Paratylenchus)	Citrus (Tylenchulus)	Comments
626	Untreated	Almond	379						348										F

**A & L WESTERN AGRICULTURAL LABORATORIES, INC.**  
1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



Grower: Escalon Almonds #2

## Nematode Analysis Report

Date: 08/07/2017

Number of nematodes recovered per 100cc of soil																			
Lab Number	Sample Number	Crop Past/Present	Root-Knot (Meloidogyne)	Lesion (Pratylenchus)	Stunt (Tylenchorynchus)	Spiral (Helicotylenchus)	Stubby-Root (Trichodorus)	Dagger (Xiphinema)	Ring (Criconeimoides)	Larva	Adult	Egg	CYST	Slings (Belonolaimus)	Lance (Hoplolaimus)	Sheath (Hemicriconeimoides)	Pin (Paratylenchus)	Citrus (Tylenchulus)	Comments
1130	Treated	Almond	29					23	16										F

# Promax Grape Nematode Trial

Old Vine Zin treated with one application of Promax through the drip.

Rate: 1 gallon per acre

**A & L WESTERN AGRICULTURAL LABORATORIES, INC.**  
1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



Grower: Lodi old Vine Zin

## Nematode Analysis Report

Date: 08/07/2017

Number of nematodes recovered per 100cc of soil																			
Lab Number	Sample Number	Crop Past/Present	Root-Knot (Meloidogyne)	Lesion (Pratylenchus)	Stunt (Tylenchorynchus)	Spiral (Helicotylenchus)	Stubby-Root (Trichodorus)	Dagger (Xiphinema)	Ring (Criconeimoides)	Larva	Adult	Egg	CYST	Slings (Belonolaimus)	Lance (Hoplolaimus)	Sheath (Hemicriconeimoides)	Pin (Paratylenchus)	Citrus (Tylenchulus)	Comments
54221	Untreated	Grape	298						1558										F

**A & L WESTERN AGRICULTURAL LABORATORIES, INC.**  
1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



Grower: Lodi old Vine Zin

## Nematode Analysis Report

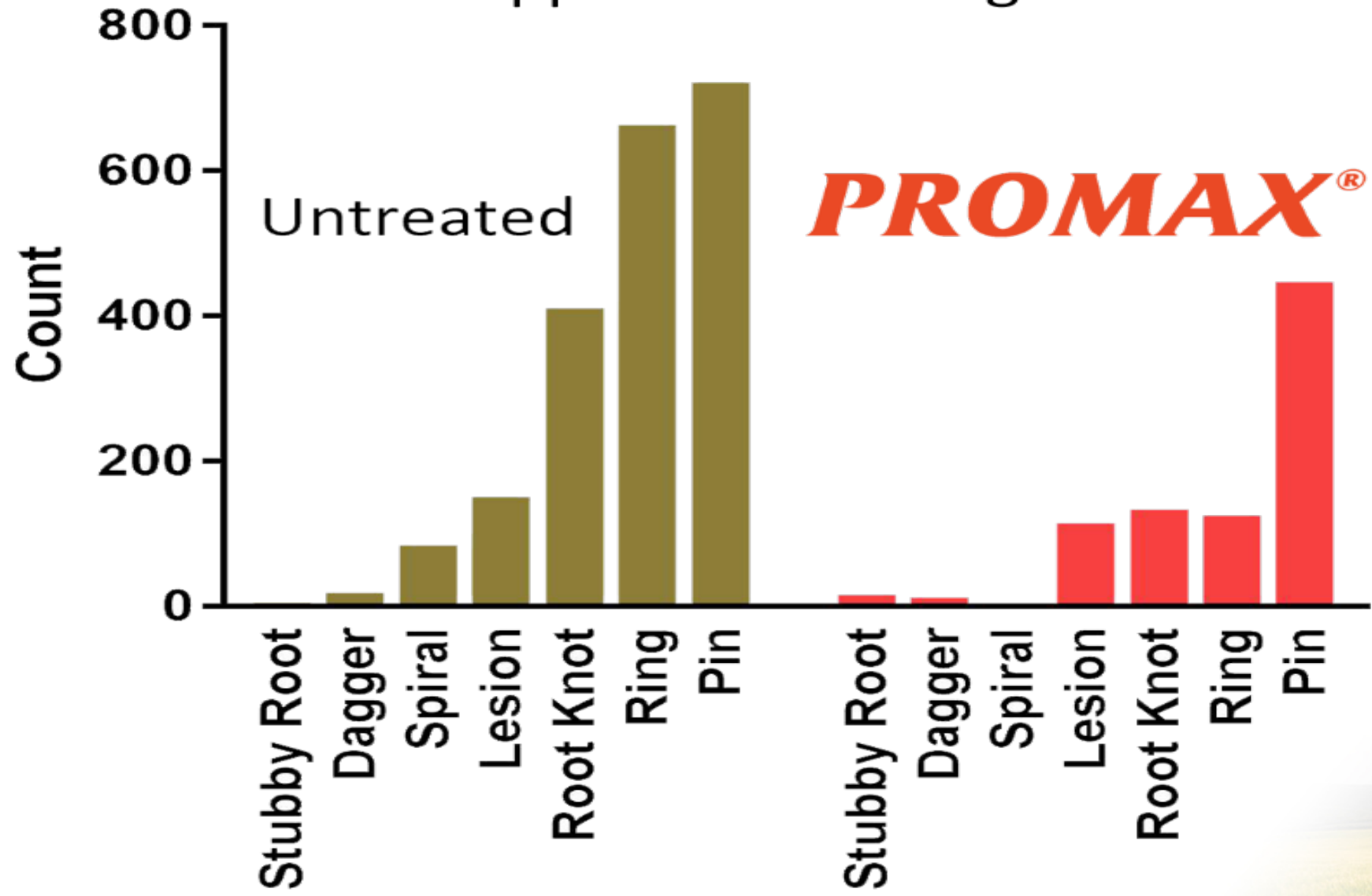
Date: 10/02/2017

Number of nematodes recovered per 100cc of soil																			
Lab Number	Sample Number	Crop Past/Present	Root-Knot (Meloidogyne)	Lesion (Pratylenchus)	Stunt (Tylenchorynchus)	Spiral (Helicotylenchus)	Stubby-Root (Trichodorus)	Dagger (Xiphinema)	Ring (Criconeimoides)	Larva	Adult	Egg	CYST	Slings (Belonolaimus)	Lance (Hoplolaimus)	Sheath (Hemicriconeimoides)	Pin (Paratylenchus)	Citrus (Tylenchulus)	Comments
191	Treated	Grape	399						105										F





# 1st application averages







# Before



## Appendix: Pathogen Screen Strawberry

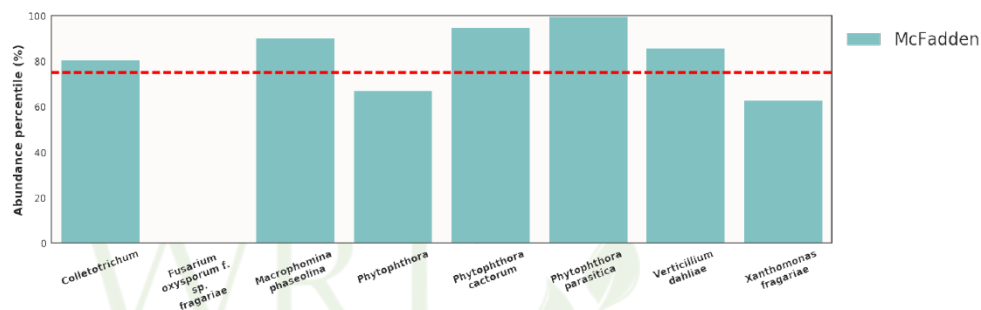
**Customer:** Wrt  
**Contact:** Silvano De Luna  
**Sampling Date:** 14 December 2017  
**Farm Name:** Cypress  
**Field Name:** Mcfadden

### Medium

- Phytophthora (Phytophthora Crown Rot)  
McFadden
- Xanthomonas fragariae (Angular Leaf Spot)  
McFadden

### High

- Colletotrichum (Anthracnose)  
McFadden
- Macrophomina phaseolina (Charcoal Rot)  
McFadden
- Phytophthora cactorum (Phytophthora Crown Rot)  
McFadden
- Phytophthora parasitica (Phytophthora Crown Rot)  
McFadden
- Verticillium dahliae (Verticillium Wilt)  
McFadden



\* The dotted red line represents the seventy-fifth percentile relative to healthy soils in your community. Above this line, pathogen levels are considered high; twenty-fifth percentile and below relative to community is considered low.

# After

# PROMAX<sup>®</sup>



## Appendix: Pathogen Screen Strawberry

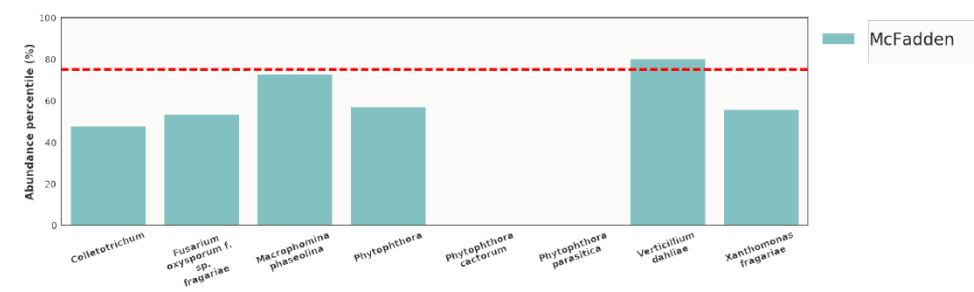
**Customer:** Wrt  
**Contact:** Silvano De Luna  
**Sampling Date:** 12 January 2018  
**Farm Name:** Cypress  
**Field Name:** Mcfadden

### Medium

- Colletotrichum (Anthracnose)  
McFadden
- Fusarium oxysporum f. sp. fragariae (Fusarium Wilt)  
McFadden
- Macrophomina phaseolina (Charcoal Rot)  
McFadden
- Phytophthora (Phytophthora Crown Rot)  
McFadden
- Xanthomonas fragariae (Angular Leaf Spot)  
McFadden

### High

- Verticillium dahliae (Verticillium Wilt)  
McFadden



\* The dotted red line represents the seventy-fifth percentile relative to healthy soils in your community. Above this line, pathogen levels are considered high; twenty-fifth percentile and below relative to community is considered low.





April 30, 2018

July 02, 2018

Water Right Technologies  
Almonds / Merced County

Water Right Technologies  
Almonds / Merced County

SOIL FUNGUS IDENTIFICATION

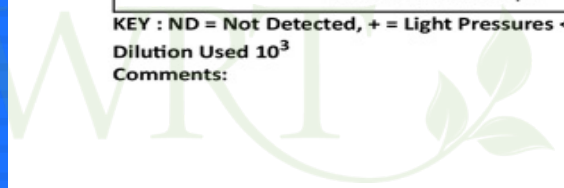
Before

**PROMAX<sup>®</sup>**

Field ID	M8	M8
<b>PATHOGENIC FUNGI</b>		
<i>Alternaria</i> sp.	ND	ND
<i>Collectotrichum</i> sp.	ND	ND
<i>Cylindrocarpon</i> sp.	ND	ND
<i>Fusarium</i> sp.	++	+
<i>Phytophthora</i> sp.	ND	+
<i>Pythium</i> sp.	++	ND
<i>Rhizoctonia</i> sp.	+	+
<i>Stemphyllium</i> sp.	ND	ND
<i>Verticillium</i> sp.	+++	ND
<b>BENEFICIAL FUNGI</b>		
<i>Aspergillus</i> sp.	+	+
<i>Cladosporium</i> sp.	ND	ND
<i>Penicillium</i> sp.	+	+
<i>Rhizopus</i> sp.	+	++
<i>Trichoderma</i> sp.	ND	+

KEY : ND = Not Detected, + = Light Pressures <100 cfu/gm of soil, ++ = Medium Pressures 101-500 cfu/gm of soil, +++ = High Pressures >501 cfu/gm of soil,

Dilution Used 10<sup>3</sup>  
Comments:







THANK YOU



# Huma Gro Foliar Products on Strawberries





# California Strawberry Trial #1

Conducted by: Holden Research and Consulting

Huma Gro® products (foliar applications): Vitol®, Breakout®, Super Phos®, Super Nitro®, Calcium, Super Potassium®

September 5: 1 pint/acre each of Vitol®, Breakout®, and Super Phos®

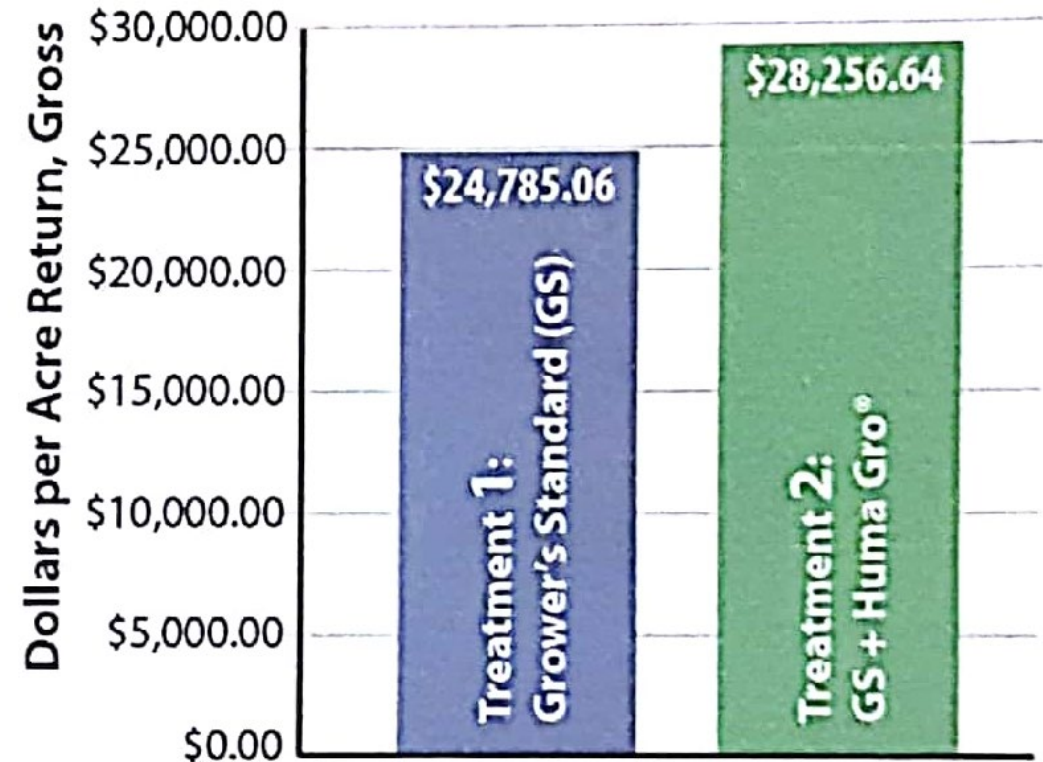
September 26: 1 pint/acre each of Vitol®, Super Phos®, and Super Nitro®

October 17: 1 pint/acre each of Vitol®, Super Nitro®, and Calcium

November 7: 1 pint each of Vitol®, Calcium, and Super Potassium®

**Conclusion: Higher yields (+13%) and higher percentage of marketable fruit (+6%)**

**Almost \$3,500 more per acre, a 14% increase in dollars back to the grower.**



**Figure 3. Total Strawberry Yield Gross Return (\$/Acre), Grower's Standard (GS) vs. GS + Huma Gro®**



# California Strawberry Trial #2

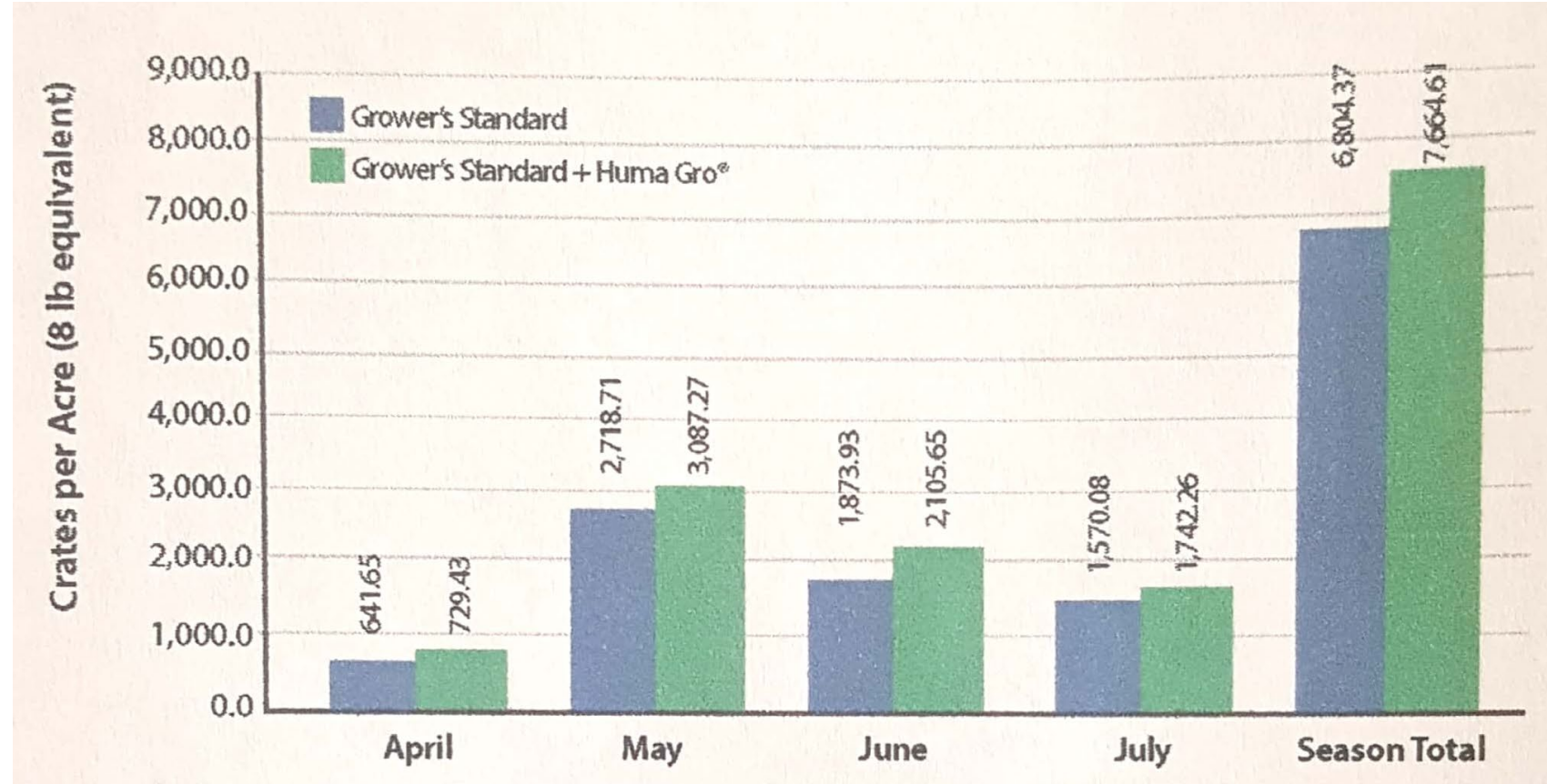
Conducted by: Plant Sciences;  
Watsonville, California

Huma Gro® products (foliar applications):  
Vitol®, Breakout®, Lucky 7®, Calcium,  
Super Nitro®, and Super Potassium®

Foliar applications of the Huma Gro®  
products were applied approximately  
every 2 weeks for 8 weeks. Super Nitro®  
and Super Potassium® were only applied  
on the last 2 applications.

**Conclusion: Higher yields and higher  
percentage of marketable yield.  
Combined marketable yield increase of  
19% of the grower standard.**

**Return to the farm increase of over  
\$5,000/acre. The ROI was calculated to  
be greater than 4,000%**





# California Strawberry Trial #3

Conducted by: Holden Research and Consulting

Huma Gro® Products: Promax®, Zap®, Vitol®, Breakout®, Calcium, and Lucky 7®

Treatment #1: Fumigation plus grower's standard fertilizer

Treatment #2: Treatment 1 plus Huma Gro® Promax® (2 gallon pre-plant and 1 gallon every month) and Zap® (1 gallon pre-plant and 1 gallon every month)

Treatment #3: Treatment 2 plus Huma Gro® foliar nutrients (applied every 2 weeks during the growing season for a total of 12 applications of each product).

**Conclusion: Both Huma Gro® treatments resulted in higher yields and higher percentage of marketable yield. Treatment 3 resulted in an overall yield increase of 14% over treatment 1.**

Return to the farm increase of almost \$3,500 more per acre. 15% increase in dollars back to the grower. The ROI was calculated to be over \$2,500/acre or 289%.

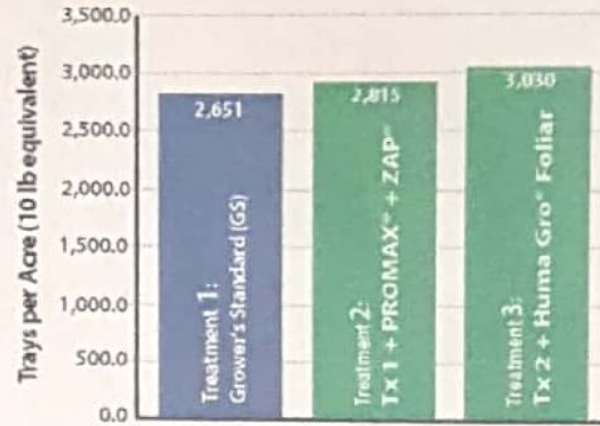


Figure 1. Total Strawberry Trays Yield per Acre, Treatment 1 vs. Treatment 2 vs. Treatment 3

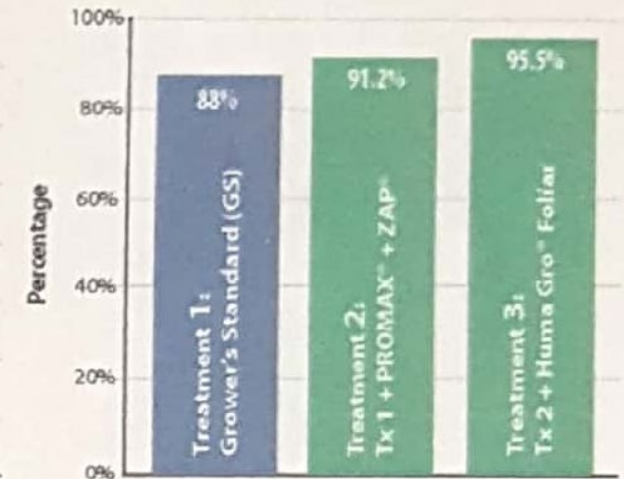


Figure 2. Percentage Strawberry Yield Marketable Utilization, Treatment 1 vs. Treatment 2 vs. Treatment 3

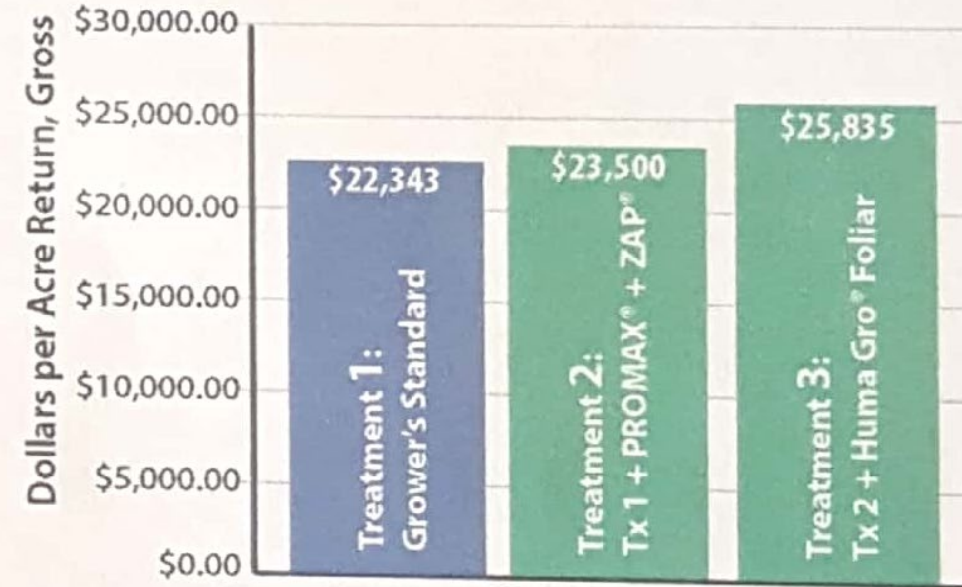


Figure 3. Total Strawberry Yield Gross Return (\$/Acre), Treatment 1 vs. Treatment 2 vs. Treatment 3



# Quotes by David Holden

- “Treatment 3 was the best overall based on the higher returns to the grower and flats per acre and it would appear that the addition of the Huma Gro<sup>®</sup> foliar products contributed significantly to these returns. This was also found to be true in an earlier trial conducted for Huma Gro<sup>®</sup> with their foliar products in strawberries.”
- “The health of the producing plants did seem to be improved with higher quality fruit produced during the season.”





GS  
+  
fume

UP  
+  
promax

G.S.  
+  
promax



G.S.  
+  
Fume

UP.  
+  
Fume













Thank You