



PureCrop1[®]

INSECTICIDE | FUNGICIDE | BIOSIMULANT | SURFACTANT

ONE ORGANIC SOLUTION

**PRODUCT INFORMATION
& FIELD RESULTS**



ACTIVE INGREDIENTS



SOYBEAN OIL

Made up of long chain fatty acids (lipids) used to create the micelle. **Palmitic acid** (10%), **stearic acid** (4%), **oleic acid** (18%), **linoleic acid** (55%), and **linolenic acid** (13%).



CORN OIL

Made up of long chain fatty acids (lipids) used to create the micelle. **Palmitic** (13%), **linoleic** (52%), **stearic** (3%), **oleic** (31%) and **linolenic** (1%).



INGREDIENTS



INERT INGREDIENTS



GLYCERIN



CITRIC ACID



GUAR GUM



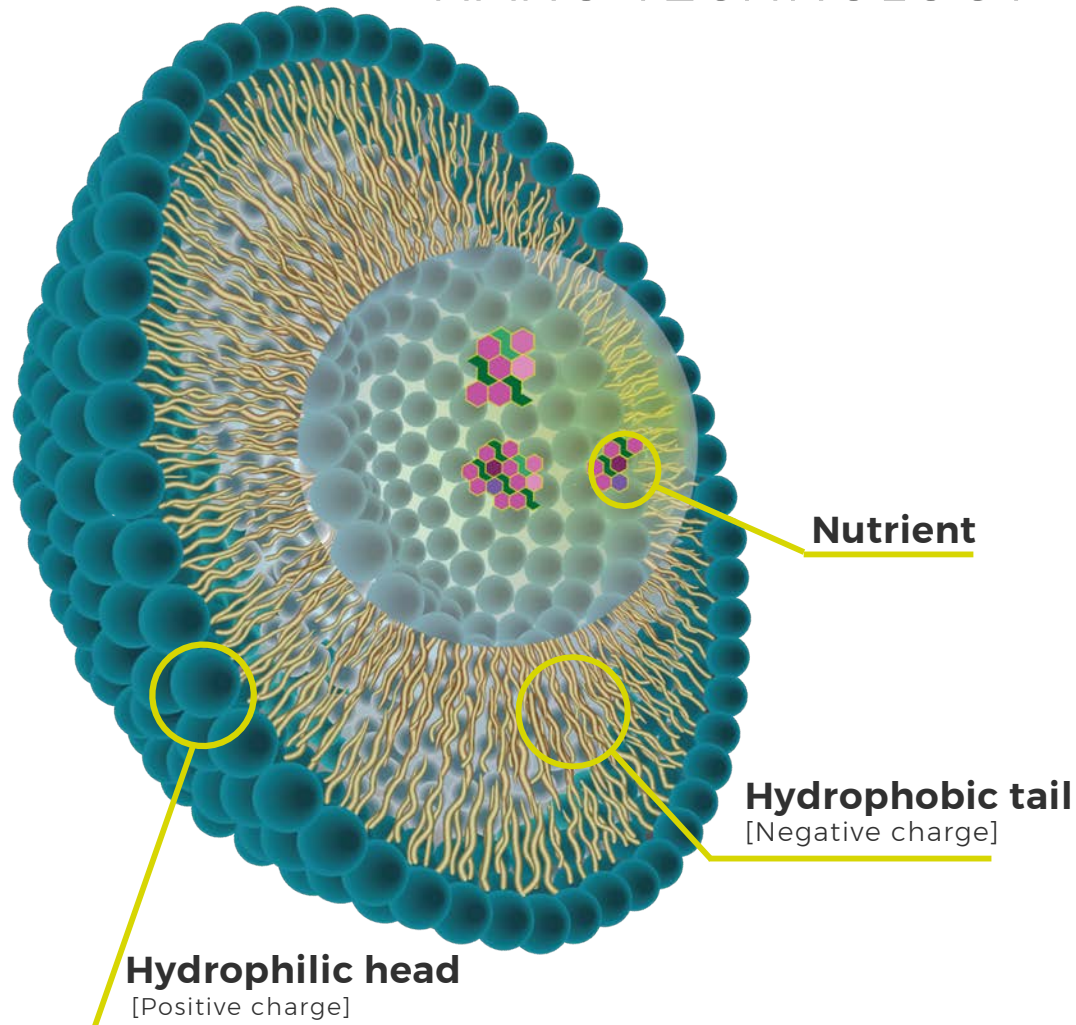
SOAP



VANILLIN

COLLOIDAL MICELLE

NANO TECHNOLOGY



MOLECULE

- ✎ The hydrophobic (or fatty acid) tail repels water.
- ✎ The hydrophilic head is attracted to water.

MICELLE

- ✎ The size of a single micelle is 1 - 4 nanometers (or 1 billionth of a meter).
- ✎ 1 billion micelles can fit on the tip of a ballpoint pen.
- ✎ **The particle size is what allows great efficacy.**

ENCAPSULATION PROPERTIES

- ✎ Micelle can pick up and hold small droplets of oil/fat in its non-polar interior.
- ✎ Micelle can pick up and carry approximately 23% of its weight in polar and non-polar particles such as nutrients and other chemicals.
- ✎ The tails inside attach to the oil/fat and the entire droplet is protected.
- ✎ The micelle carries nutrients throughout the plant.
- ✎ Will not clog stomata, directly absorbed by plant.

SURFACTANT

Surfactants are compounds that lower the surface tension between a liquid and a solid or air.

Surfactants may act as detergents, wetting agents, emulsifiers, foaming agents, and dispersants.

A micelle is a supra-molecular assembly of surfactant molecules dispersed in a liquid colloid.

Molecules are constantly repelling each other due to their electrical properties.

PureCrop1 is better able to penetrate the stomata than water alone — carrying nutrients with it.

PureCrop1 will not clog or flood stomata.

FACT 01

FACT 02

FACT 03

FACT 04



MOLD & MILDEW

Mold And Mildew Are Affected By
Membrane Disruption — Weakening Cells.

CONTROL

Controls powdery mildew, botrytis, sooty mold, fusarium wilt, leaf curl, other fungi, and more.

STERILIZE

Solid particles break down and are completely biodegraded; this sterilizes the spore.

PROTECT

The product is a translaminar and leaves a protective layer in the sap layer, protecting the plant for up to 12 days.

EFFECTIVE

Effective on all types of mold and mildew because of the mode of action, or “membrane disruption”. Mold and mildew cannot be resistant to this mode of action.

VERSITILE

PureCrop1 is anti-microbial & anti-bacterial but can still be used in rotation with other products when appropriately timed.



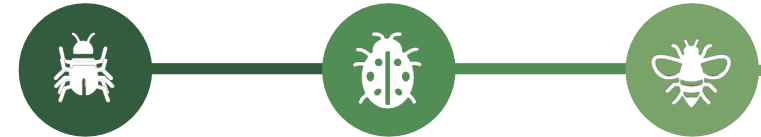
AFFECTED INSECTS

SAP-SUCKING INSECTS

Eliminates thrips, mealybugs, whiteflies, ants, scales, leaf-hoppers, and other sap-sucking insects by destroying the bacteria that process glucose.

Eliminates all types of aphids as well as the ants that tend them, the honeydew they excrete, and the mold caused by the honeydew.

Eliminates mites by disrupting the enzymes in the gut - includes spider, russet, broad, and other mites.



BENEFICIAL INSECTS

Beneficial insects are not harmed due to the complex digestive system that is designed to process other materials like bugs and pollen.

UNHARMED INSECTS



BIOSTIMULANT

The Micelle Is The Vehicle To Deliver The Tool And Force.

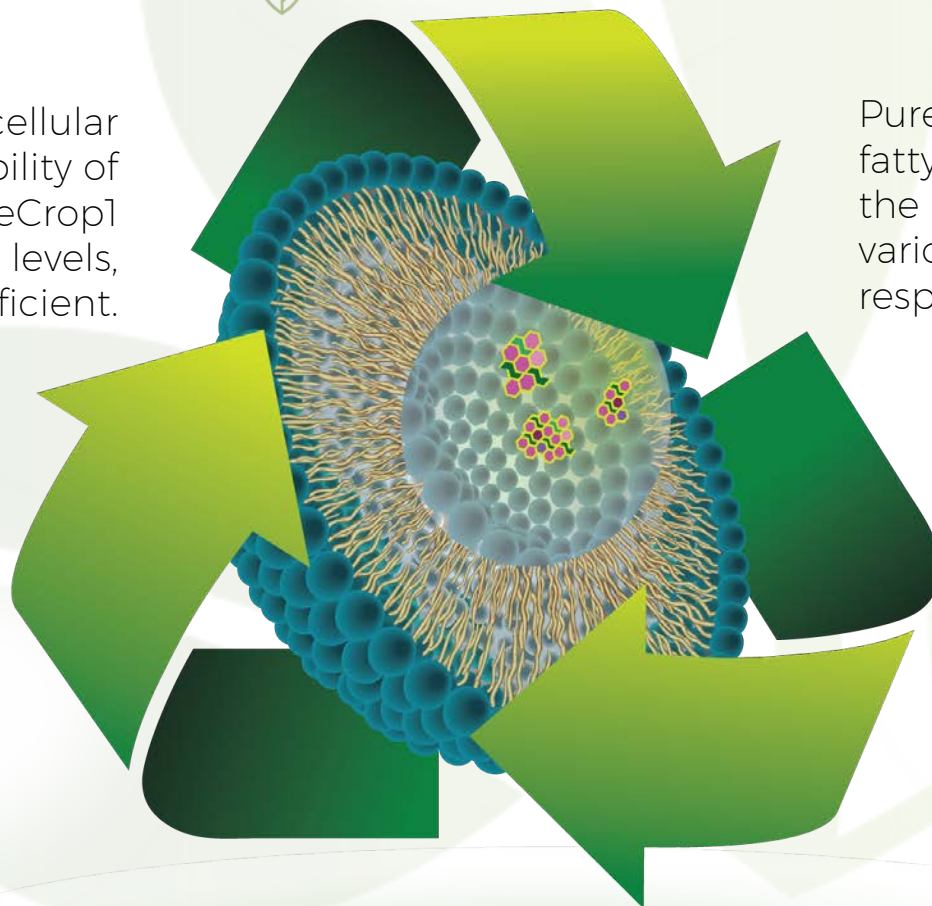
FATTY-ACIDS The Energy

PureCrop1 is made of long-chain fatty acids that are available for the plant to metabolize into various hormones used for stress response and growth regulation.

Due to the increase in cellular signaling and the availability of hormones and nutrients, PureCrop1 raises brix and flavonoid levels, making the plant more efficient.

HORMONES The Tool

CELLULAR SIGNALING The Force





vs

Conventional Crop Oils

Stimulates Plants

Does Not Harm Beneficial Insects

Will Not Burn Plants

Zero Phytotoxicity

**Bioselective To Sap-Sucking
Insects**

Disrupts Insect's Digestive Enzymes

Not A Suffocate

Will Not Clog Plant Stomata

Will Not Separate In Water

Readily Mixes

Stunts Growth

**Can Eliminate Beneficial
Insects**

Can Cause Phytotoxicity

Non-Selective Suffocant

Clogs Plant Stomata

Separates In Water

SUSTAINABLE



Meeting today's needs without compromising the future.

EFFICIENT



Zero re-entry & Zero pre-harvest intervals.

GREEN



Provides workers a cleaner & more friendly work environment.

FUTURE VIABILITY



Increases
Rate Of
Photosynthesis



No
Phytotoxicity



Improves
Shelf-Life Of
Harvested
Crops



Increases
Brix Levels



Visibly
Healthier Plant



Improves Overall
Plant Health



RESULTS FROM THE FIELD



Competitor VS. PureCrop1

Side-By-Side Comparison Targeting Spider Mites

Competitor's Product
(Type of Thyme Oil)



PureCrop1

YOU DECIDE

ALTERNARIA

Almond Orchard

 PureCrop1 Is **Rainfast**
Within Two Hours Of
Application.

During heavy rains, this 320-acre almond ranch was hit hard by Alternaria which lead the growers to switch to PureCrop1.

PureCrop1 was applied with less than 2 hours of dry-time before another heavy rain rolled in. This image is after 12 days of rain [with an additional 5 days to let the field dry].

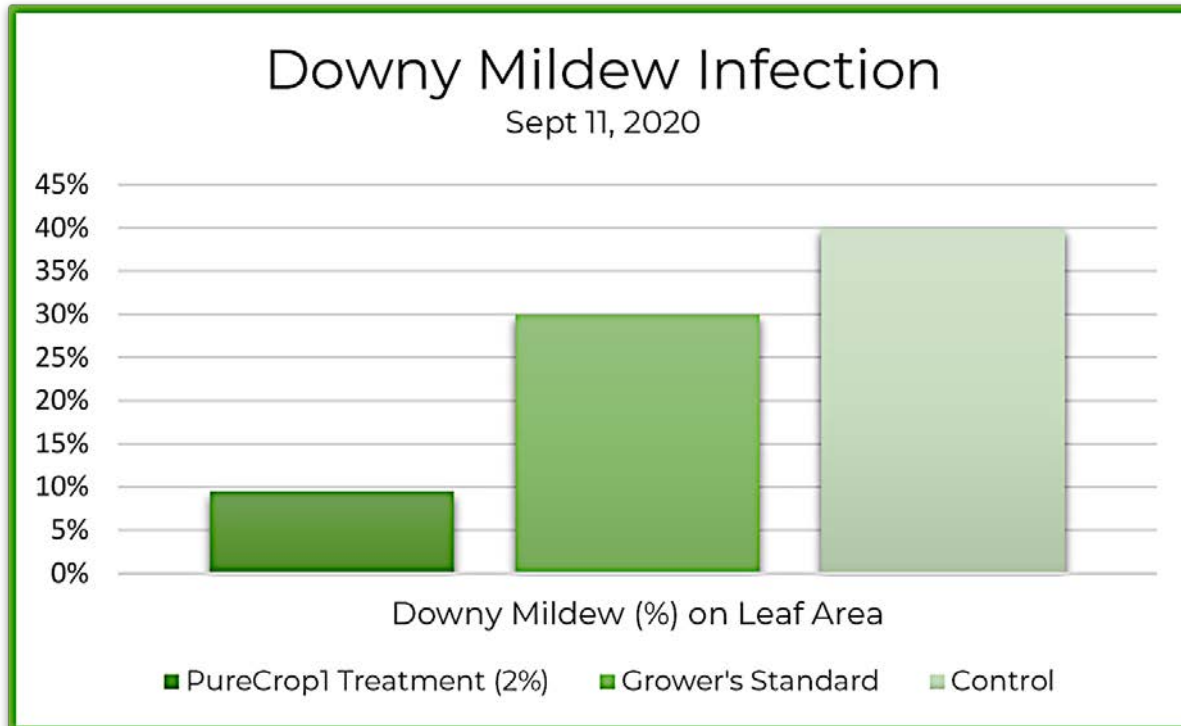
Less than 2 hours after application, the almond trees treated with PureCrop1 were remarkably resilient to the rain!

Unprotected vs.  **PureCrop1**
Protected

DOWNY MILDEW TRIAL

Sept. 2020

A 2-oz dilution of **PureCrop1** showed a **76% reduction in infection compared to the control**, and a **68% reduction compared to the grower's standard** after three applications (1/week). While a 1-oz dilution showed a 50% reduction, compared to the grower's standard solution and control. Seven days later, the PureCrop1-treated leaves continued to show around 50% less infection than the grower's standard and control without any additional applications.



PureCrop1
Treatment



Grower's
Biological
Standard




Untreated
Control

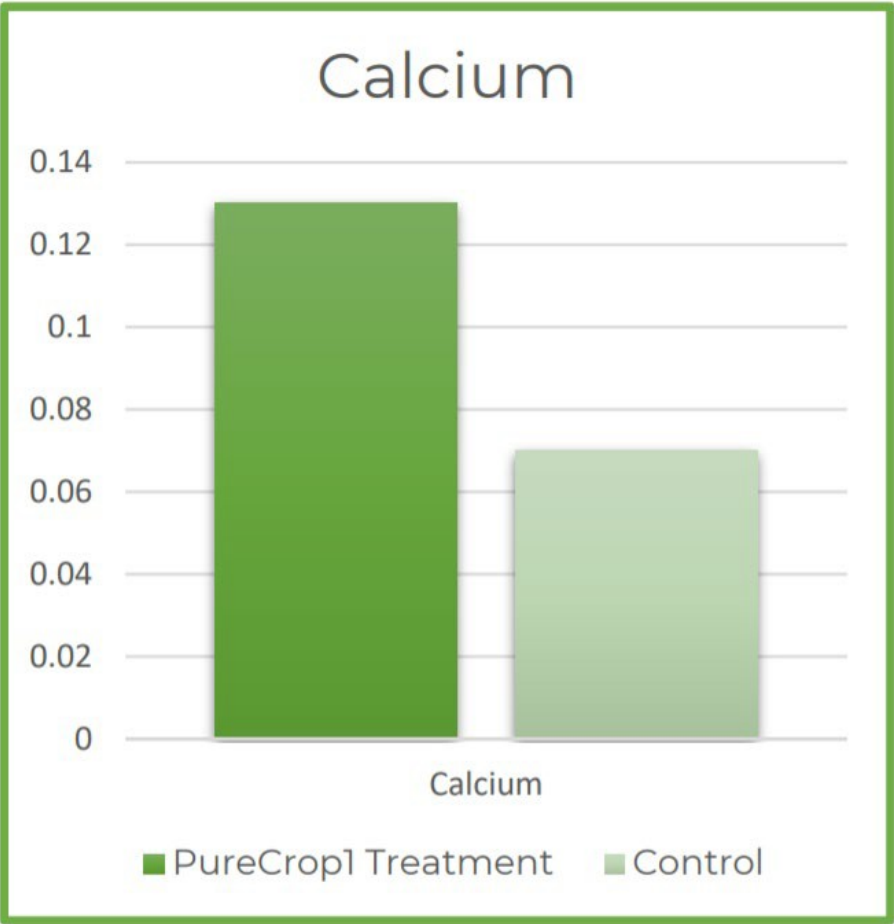


CORAL CHERRY TRIAL

May 2020



 **PureCrop1 Increased Calcium Levels By 85.7% In Cherries!**



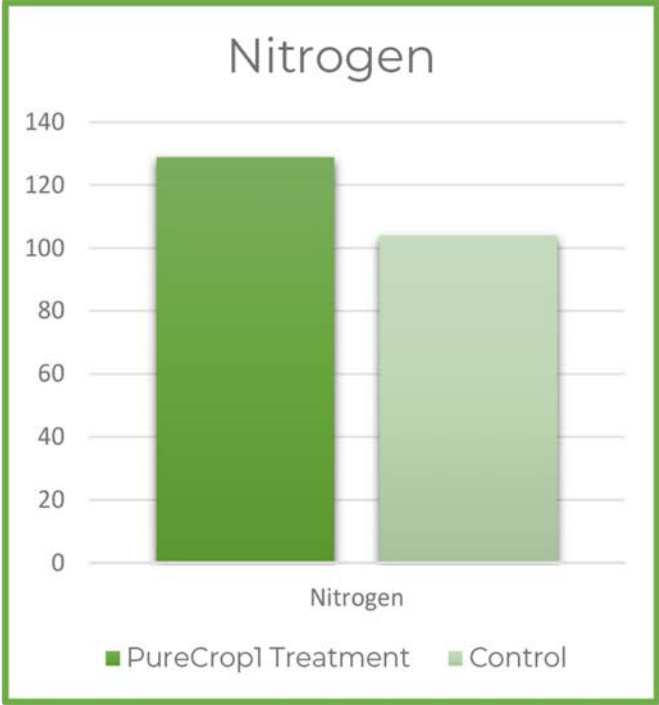
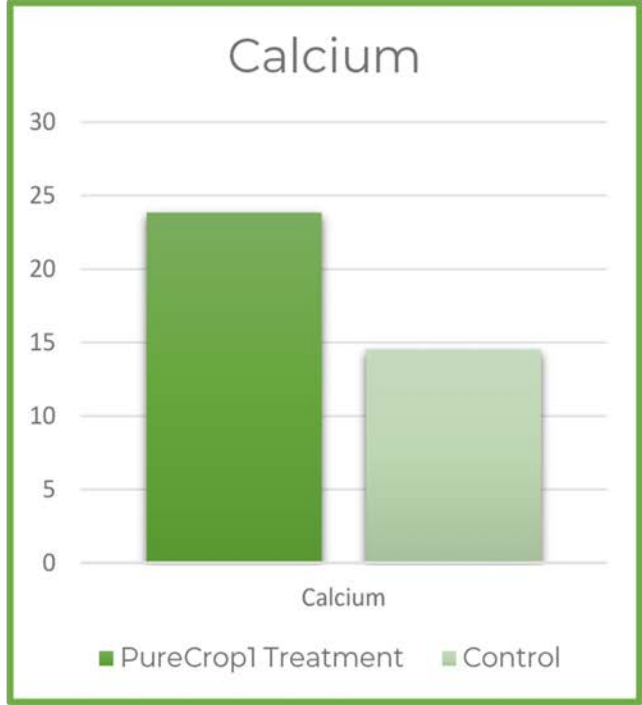
	Calcium
PureCrop1 Treatment	0.13
Control	0.07
PureCrop1 vs. Control (%)	85.7%

PEACH TRIAL

Fruit Tissue Analysis

Aug. 2020

The test plot received PureCrop1 treatments from bloom through harvest, while the control plot remained the farmer's standard. Dilution rates varied throughout the season, depending on pressures and what was mixed in the tank with PureCrop1.



PureCrop1 Increased
Calcium By **64%** &
Nitrogen By **24%!**

Calcium	DATA:	Nitrogen
23.87	PureCrop1 Treatment	129
14.54	Control	104
64.2%	PureCrop1 vs. Control (%)	24.0%



Denele Analytical, Inc.

Agricultural and Environmental Analysis

Plant Tissue Analysis

Certified By:
ELAP Certificate No. 2714
Manure Analysis Proficiency (MAP)
North American Proficiency Testing (NAPT)
National Forage Testing Association (NFTA)
Family Farms Alliance (FFA)

PureCrop1
2005 N State St
Ukiah, CA 95482

Approved By: Josh Huot
Report Date: 6/29/2020
Order Number: T0176053
Date Received: 6/24/2020
Submitted By: Chris Hale

Crop: Nectarines
Variety:
Present Yield:
Purchase Order:

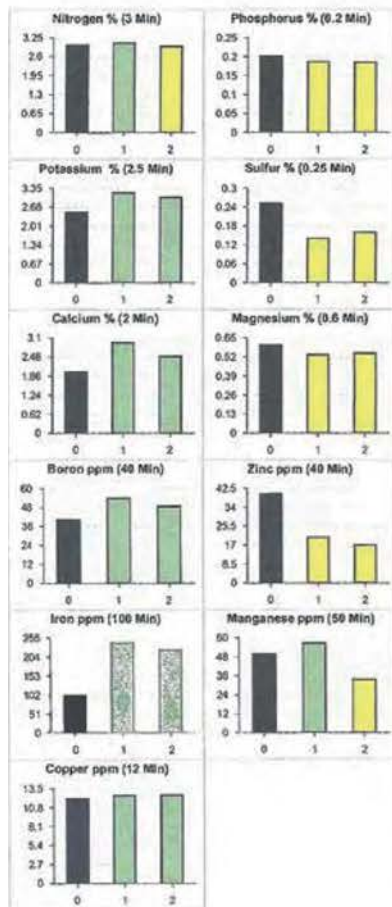
Grower: Wawona
PCA:



Nectarine Trial

Tissue Results with Analysis

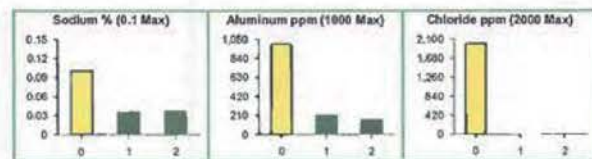
June 24 2020



Sequence #	0	1	2
Sample ID		PC1-Leaf	Control
Lab Sample ID		T0176053A	T0176053B
Nitrogen %	3.00	3.07	2.95
Phosphorus %	0.200	0.186	0.185
Potassium %	2.50	3.18	3.02
Sulfur %	0.250	0.140	0.160
Calcium %	2.00	2.94	2.50
Magnesium %	0.600	0.534	0.545
Boron ppm	40.0	53.7	48.6
Zinc ppm	40.0	20.5	17.1
Iron ppm	100	241	223
Manganese ppm	50.0	56.7	33.8
Copper ppm	12.0	12.5	12.5
Molybdenum ppm			
Nickel ppm			
Cobalt ppm			
Sodium %	0.100	0.035	0.036
Aluminum ppm	1000	207	158
Chloride ppm	2000		

Denele Integrated Ratios

Sequence #	0	1	2
Mass Balance		1.45	0.462
Nitrogen		-2.45	2.25
Phosphorus		-11.6	-3.43
Potassium		18.4	21.9
Sulfur		-69.7	-40.8
Calcium		33.3	25.3
Magnesium		-15.9	-5.13
Boron		23.7	22.3
Zinc		-82.5	-95.5
Iron		100	100
Manganese		7.28	-34.7
Copper		-0.639	7.90
Burn Tolerance		68.0	60.8



Minimum Low Normal Toxicity Level Toxic Non-Toxic

If OC is required for this sample, please contact lab.

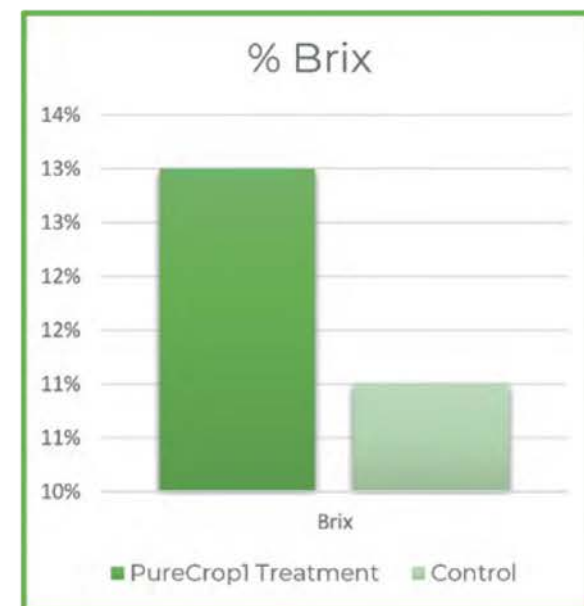
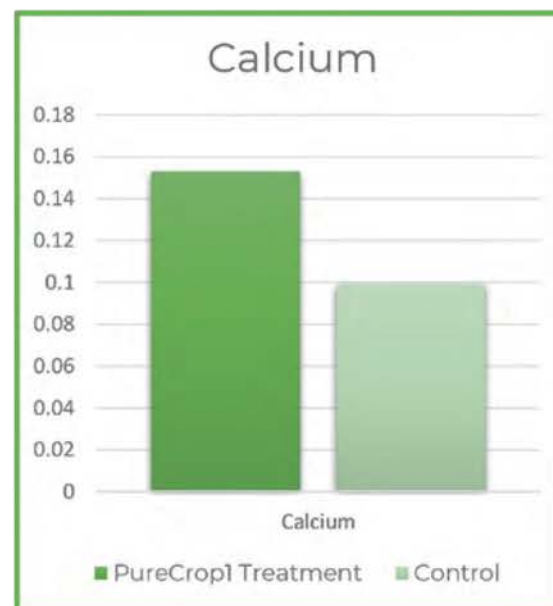
Liability Limit: The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, expressed or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.

Turlock, CA
Ph: (209) 634-9055

Woodland, CA
Ph: (530) 666-9056

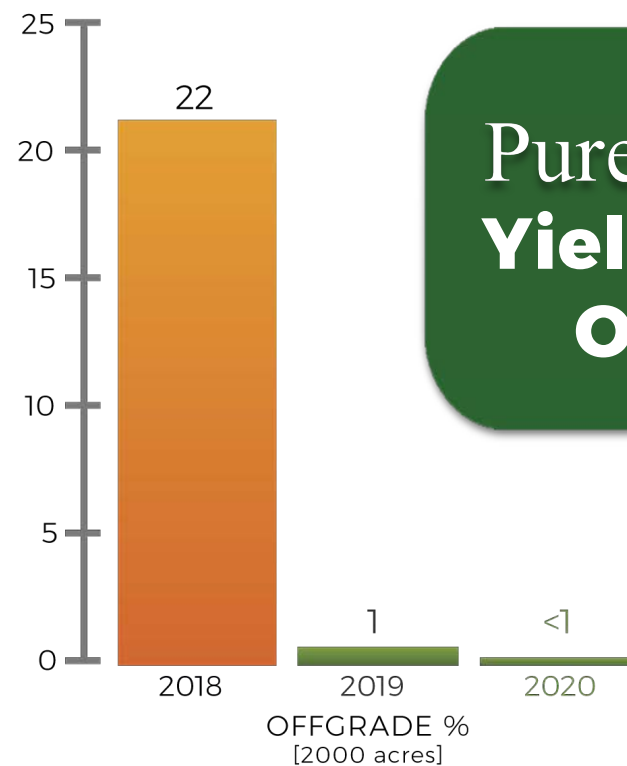
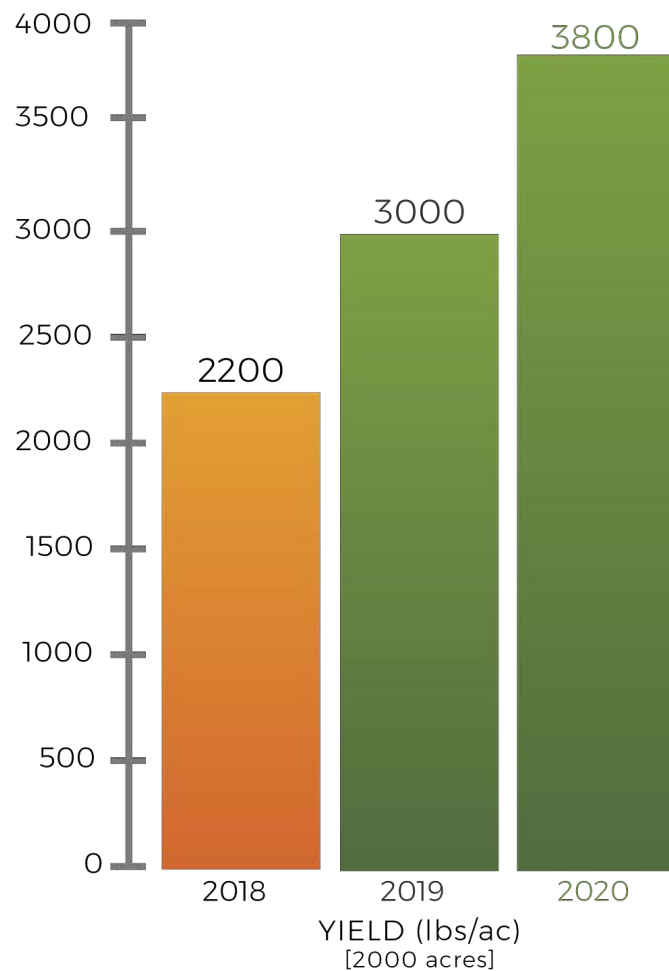
www.denelelabs.com
Fax: (209) 634-9057

	Calcium	Brix
PureCrop1 Treatment	0.153	13%
Control	0.099	11%
PureCrop1 vs. Control (%)	54.5%	18.2%



SJV ORGANIC ALMOND TRIAL

2000 Acres



 **PureCrop1 Increased Yield 36% & Reduced Off-grade To 1%!**

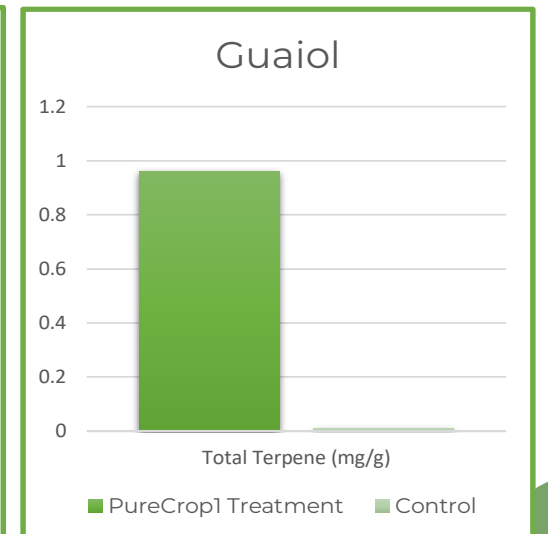
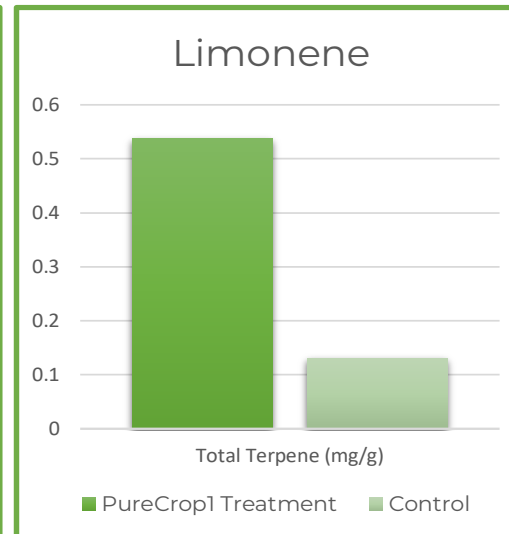
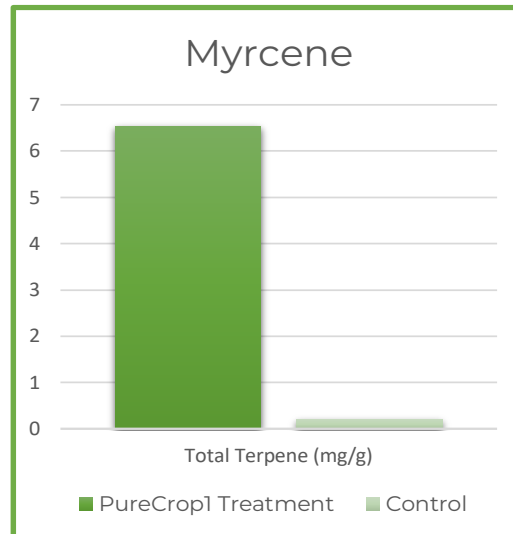
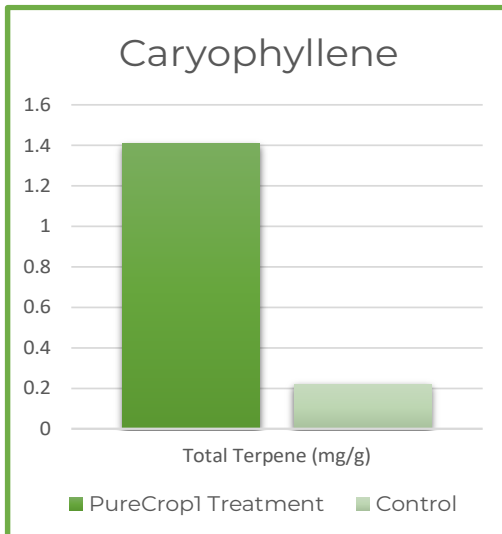
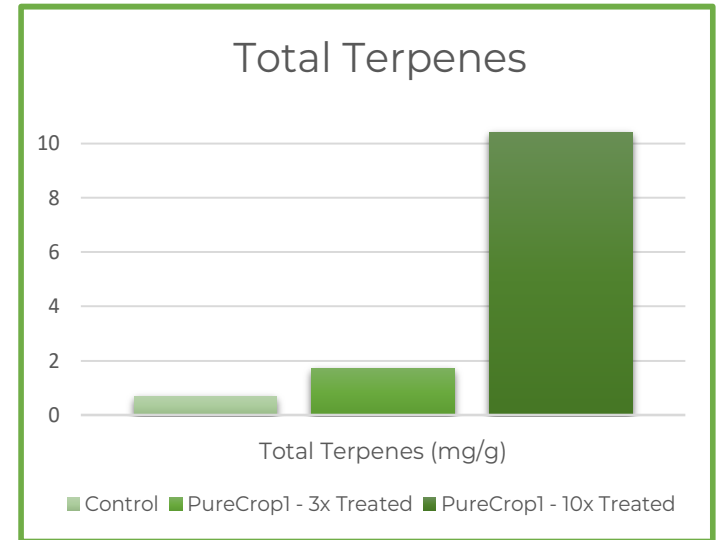


This study concluded that the application of PureCrop1 resulted in a 21.9% average increase in essential nutrients for plant growth, including a 105% increase in zinc ppm, a 32.3% increase in manganese ppm, and a 33.3% increase in iron ppm.

HEMP TERPENE STUDY

Dec. 2020

Total Terpenes (mg/g)	
PureCrop1 - 10x Treated:	10.42
PureCrop1 - 3x Treated:	1.72
Control:	0.69



WESTERN FLOWER THRIP

EFFICACY TEST June 2020

The 64:1 dilution rate of PureCrop1 provided the best results against the thrips, with 97% Abbott's mortality at day 5 after the applications. The 96:1 dilution recorded 77% and the 128:1 dilution recorded 23% Abbott's mortality at day 5.

TOTAL DEAD

Sponsor:	PureCrop 1
Test System:	Western Flower Thrips
Strain/Stage/Age:	Field / Adults / Collected
Exp. Time/Date:	See Below -06/03/20
Exp. Duration:	30 Minutes

Study:	Direct Spray 20
TEST ARENA INFO:	
Treatment Arena:	1.75" CPVC cartridge with fine mesh
Post-Trt Arena:	9 oz. SOLO cup with filter paper & lid
Food/Moisture:	Water moistened filter paper

Trial:	FRANOC
TEST SUBSTANCE INFO:	
Mix Time / Date:	See Below /06/03/20
Treatment:	9:30AM / 06/03/20
Dry Time /Evaluation:	N/A

Test Substance / Mix Rate:	Application Details:	Pre-Trt	30 min	1 hr	2 hr	4 hr	24 hr	2 DAT	3 DAT	4 DAT	5 DAT	6 DAT	7 DAT
Control - Untreated	N/A	0%	0%	0%	0%	0%	0%	0%	0%	3%	13%	38%	85%
PureCrop1 (64:1 dilution, 3.125mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	5%	0%	0%	0%	0%	0%	25%	55%	98%	100%	100%
PureCrop1 (96:1 dilution, 2.083mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	5%	8%	5%	5%	8%	8%	15%	48%	80%	95%	100%
PureCrop1 (128:1 dilution, 1.563mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	0%	0%	3%	8%	13%	15%	15%	15%	33%	73%	98%

ABBOTT'S PERCENT (1925) MORTALITY

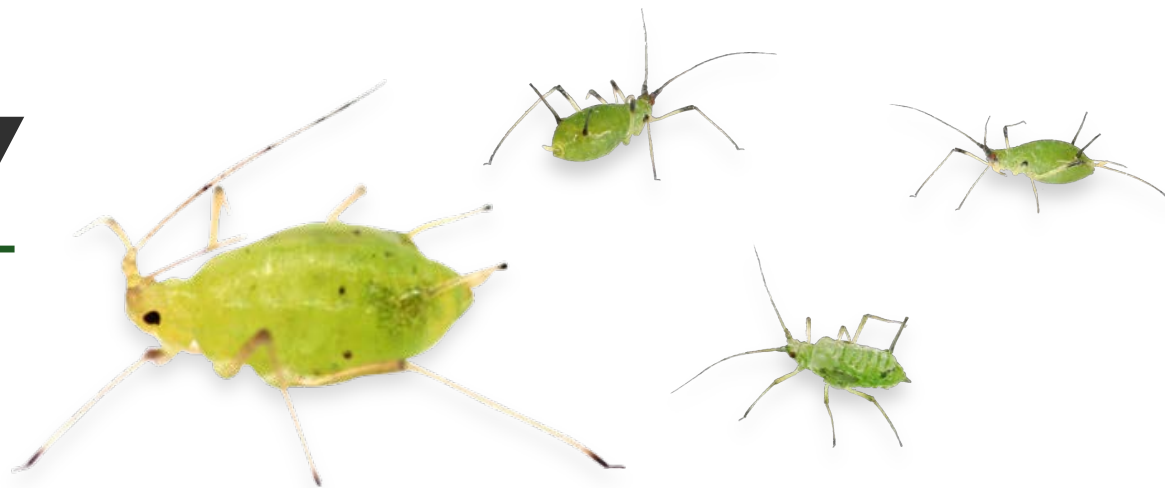
Test Substance / Mix Rate:	Application Details:	Pre-Trt	30 min	1 hr	2 hr	4 hr	24 hr	2 DAT	3 DAT	4 DAT	5 DAT	6 DAT	7 DAT
PureCrop1 (64:1 dilution, 3.125mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	5%	0%	0%	0%	0%	0%	25%	54%	97%	100%	100%
PureCrop1 (96:1 dilution, 2.083mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	5%	8%	5%	5%	8%	8%	15%	46%	77%	92%	100%
PureCrop1 (128:1 dilution, 1.563mL/200mL water)	2 trigger pulls from 12" distance using Snell Sci. trigger sprayer	0%	0%	0%	3%	8%	13%	15%	15%	13%	23%	56%	83%

NOTE ON ABBOTT'S THEORY:

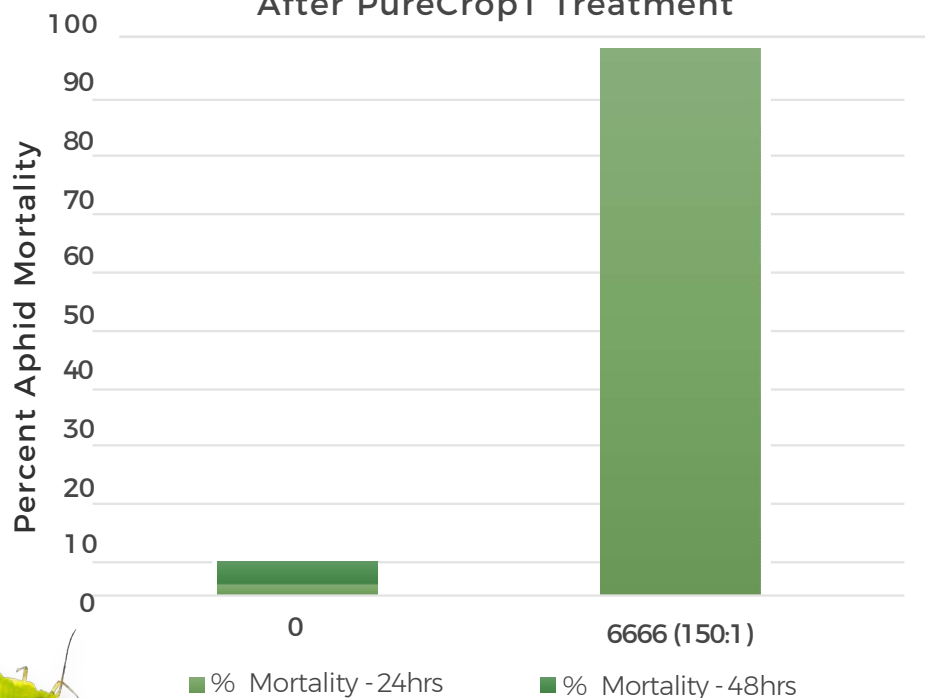
An equation used to understand raw laboratory data on mortality to provide a more accurate percentage of efficacy when used in the field — to create less bias when trialed in the lab.

APHID STUDY

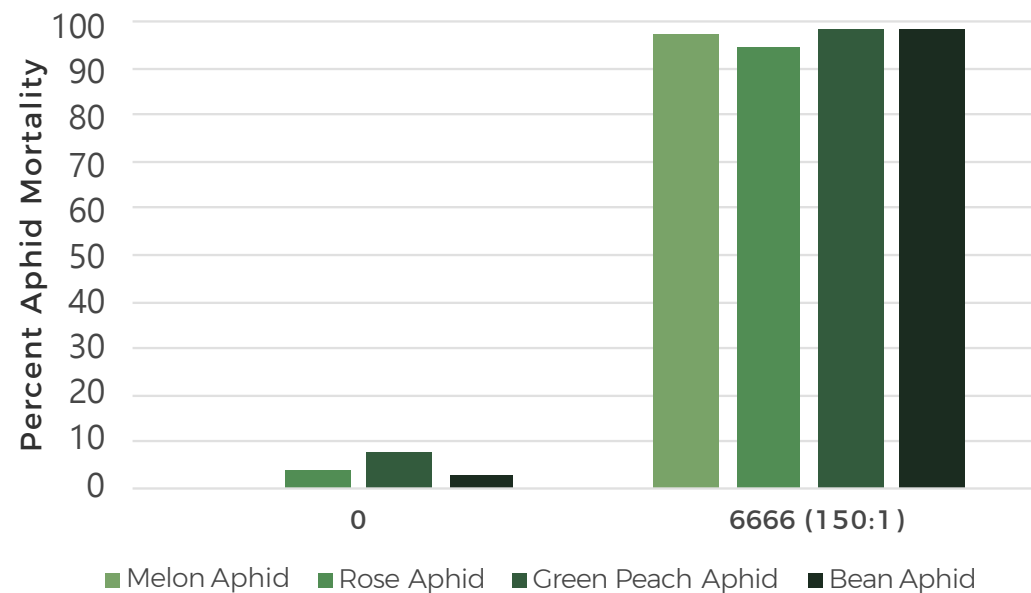
AUGUST 2018



Melon Aphid Mortality After PureCrop1 Treatment



Comparative Dose Mortality



Comparative dose-mortality relationship among four aphid species 36 hours after PureCrop1 treatment.

UNTREATED



**5 MINS
[AFTER APPLICATION]**



BUTTE OLIVES
Olive Knot



30 DAYS LATER



24 HOURS LATER

**10 MINS
[AFTER APPLICATION]**



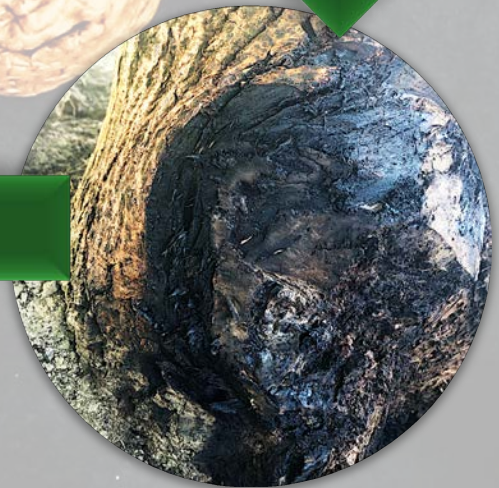
24 HOURS LATER



**COLUSA
WALNUTS**



90 DAYS LATER



**GALL 24 HOURS LATER
[REMOVED & TREATED]**



THANK YOU

FOR FULL FIELD DATA REPORTS VISIT:

www.PureCrop1.com


PureCrop1®

SALES TEAM

Matt Boeger

SVP of Commercial Agriculture

mboeger@purecrop1.com

1 (530) 682-9273

Shelby Hale

VP of International Sales

shale@purecrop1.com

1 (707) 272-8053

Chad Stedman

VP of Domestic Sales

cstedman@purecrop1.com

1 (415) 858-8156

Ray Stoll

National Sales Director

rstoll@purecrop1.com

1 (559) 284-7164

GENERAL

PHONE

+1 707-621-8939

EMAIL

info@PureCrop1.com

ADDRESS

P.O. Box 931
Ukiah, CA 95482