ULTRA-GROW TECHNOLOGIES

1-800-332-1647

Presentation

Ultra-Grow Technologies

President: Dr. Richard Maguire

Tel: 1-800-332-1647

Research Consultant: Craig Davis

Previous Research Affiliations: Plant Pathology, University of Florida

Florida Department of Citrus

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Rapid Growth Activator (RGA) is an all-natural product specifically formulated to increase biological activity in the rhizosphere and restore a productive root system to distressed plants.

DIRECTIONS

Citrus

New Trees: Use 0.5 pounds per acre. 6-8 times a year through irrigation system
Infected and Older Trees: Use 2 pounds per acre. 6-8 times a year through irrigation system for best results
RGA can be applied through herbicide boom or through irrigation system

Vegetable Crops, Turf and Golf Courses: Add 12 grams (one tablespoon) per gallon of water.
Apply with hose attached sprayer to liberal drench.
Optimum results achieved when applied morning or evening
Do not dilute product stand more than 48 hours before use

KEY INGREDIENTS

Rapid Growth Activator (RGA) is a comprehensive microbial system comprised of beneficial soil bacteria, actinobacteria, fungi and microbial synergists to promote rapid microbial establishment in the rhizosphere

Bacillus subtilis	8 x 10^{8} CFU per gram
Bacillus pumilus	8 x 10^{8} CFU per gram
Bacillus coagulans	8 x 10^{8} CFU per gram
Paenibacillus polymyxa	8 x 10^{8} CFU per gram
Pseudomonas fluorescens	8 x 10^{8} CFU per gram
Streptomycetes griseus	8 x 10^{8} CFU per gram
Saccharomyces cerevisiae	8 x 10^{8} CFU per gram
Trichoderma reesei	4 x 10^{8} CFU per gram
Trichoderma harzianum	4 x 10^{8} CFU per gram

Microbial Synergists Dextrose, Sucrose, Brewer's Yeast Extract, Soy protein Hydrolysate, Humic Acid (leonardite), Kelp (Ascophyllum nodosum).

*Reduce the use of fertilizer

* Water Dispersible Rhizosphere Inoculant

* Contains Broad Spectrum of Beneficial Soil Bacteria & Fungi

* Augmented With Synergists to Enhance Microbial Growth & Proliferation

* Specifically Formulated To Enhances Biological Activity in Rhizosphere

* Promotes Nutrient Solubilization & Nutrient Mineralization

* Enhances Soil Fertility & Improves Nutrient Availability

* Plant Growth Promoting Rhizo-Bacteria Stimulate Root Growth & Development

Our formula contains broad spectrum of beneficial soil bacteria and fungi augmented with synergist to enhance microbial growth proliferation.

ALL NATURAL- MADE IN USA

Storage and Handling Store product in original container with inner bag sealed and lid tightly secured. Store in a cool, dry area (<100O F.) out of direct sunlight. Contains hygroscopic ingredients avoid storing product in a damp, humid environment. Moderately irritating to eyes avoid contact. Wear eye protection. Wash your hands thoroughly after handling product. Please refer to MSDS Sheet for more detailed information.

RGA
RAPID GROWTH ACTIVATOR

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What is RGA?

Rapid Growth Activator (RGA) is an all-natural product specifically formulated to increase biological activity in the rhizosphere and restore a productive root system to distressed plants.

Rapid Growth Activator (RGA) is a comprehensive microbial system comprised of beneficial soil bacteria, actinobacteria, fungi and microbial synergists to promote rapid microbial establishment in the rhizosphere.

Rapid Growth Activator (RGA) is produced via a "sui generis fermentation process" so as to maximize the production of “bioactive secondary metabolites” to further enhance overall product performance.

What are the benefits of using RGA ?

- Stimulates root growth and development
- Increase disease resistance
- Reduce fruit drop
- Increase yield
- Promotes health and vigor
- Minimize nutrient leaching
- Increase resistance to draught
- Enhance nutrient absorption
- Rejuvenate older trees
- Promotes nutrient solubilization and nutrient mineralization
- Enhances soil fertility and nutrient availability
- Reduces stress caused by environment changes
- Prevents early decline

How RGA works on diseased trees?

RGA provides enumerable benefits to both the soil and the plant. Specifically the microbial system will promote root growth and enhance root architecture. These aspects are crucial for diseased trees and young trees. A healthy root minimized nutrient leaching, aid in nutrient cycling, enhance nutrient absorption, solubilize and mineralize nutrients for plant availability , stimulating plant growth and increasing resistance to abiotic stress.

What makes RGA different from other products?

Our formula contains broad spectrum of beneficial soil bacteria and fungi augmented with synergist to enhance microbial growth proliferation.

Bacillus subtilis	8×10^{8} CFU per gram
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Microbial Synergists

Dextrose, Sucrose, Brewers Yeast Extract, Soy protein Hydrolysate, Humic Acid (leonardite), Kelp (Ascophyllum nodosum).

Why you should use RGA in your crops?

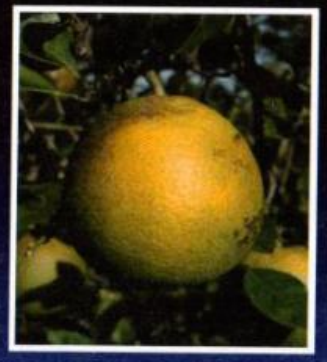
Unfortunately today many soils are grossly out of balance and are devoid of beneficial microbial populations. This is primarily due to an over reliance on pesticides and inorganic fertilizers as both adversely affect the delicate microbial balance found in healthy soil profiles. Rapid Growth Activator (RGA) was specifically formulated to re-establish these beneficial microbial populations and provide the soil with the necessary components to promote vigorous plant growth.

Why we recommend various repeated treatments with RGA?

At certain times of the year the soil supporting plants requires greater biological activity in order to grow healthy plants. This includes the establishment phase, flowering phase, plant stress and when the environment conditions favor disease (warmth, dampness, high humidity). It is always advisable to increase biological activity with an extra shot of beneficial organisms

Due to the sandy soil in Florida some of the product will leach out beyond the root system. That is why we recommend repeated injections.

Citrus Greening



- Official name is Huanglongbing (HLB)
- Bacterial disease
- Spread by the Asian citrus psyllid
- First detected in Florida in August 2005
- Symptoms appear on the fruit, leaves and affects tree growth
- Affects all citrus varieties

HLB Inoculated Sweet Orange 3 Months Post Inoculation

RGA Greenhouse Drench Study with HLB Infected Seedlings May 4th, 20015

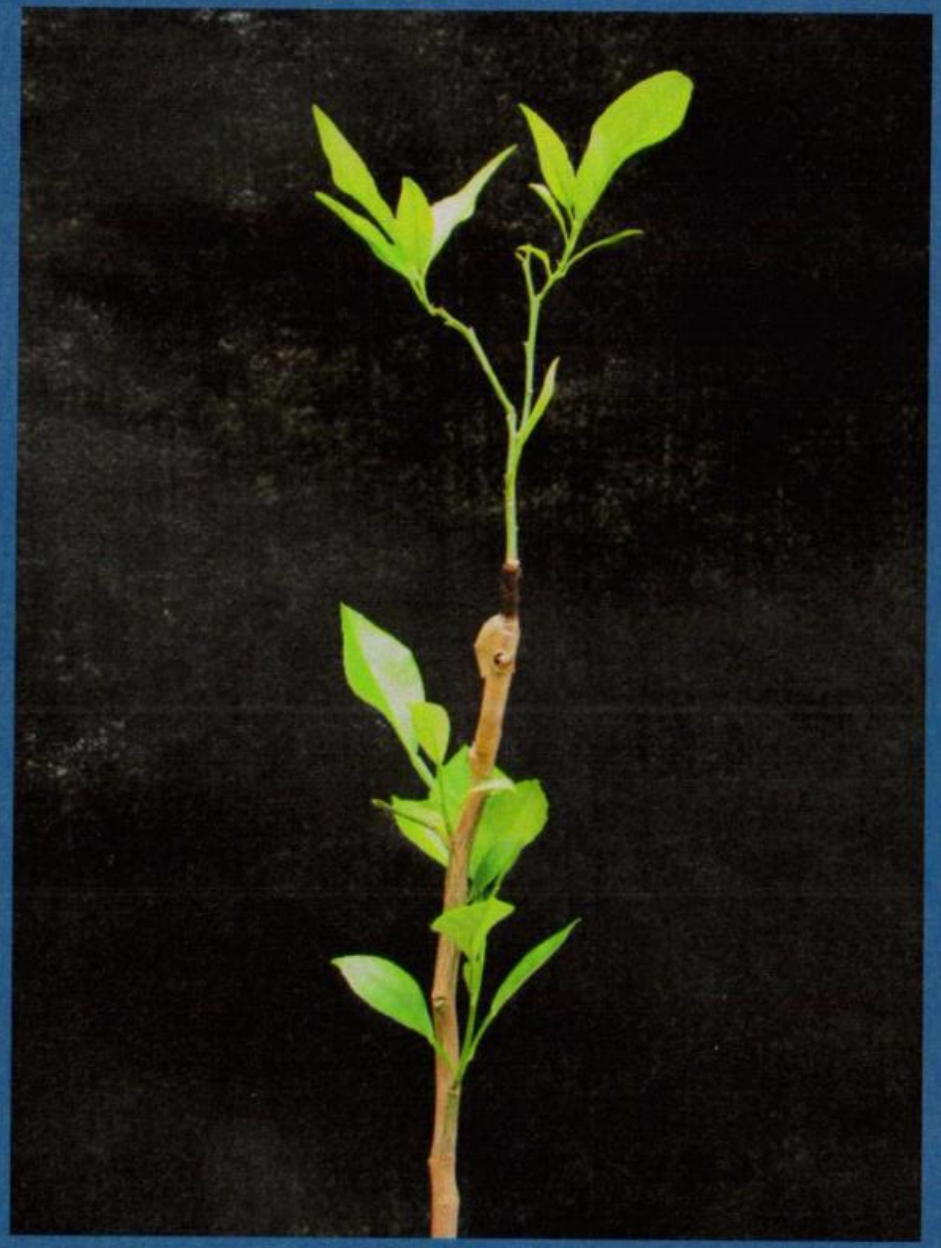
Aug. 13th 2014

Nov. 19th 2014

May 4th2015

Seedling severely infected with HLB - left photo above received 8 applications of RGA 10g/gallon at Two week intervals. New shoot development on infected seedling over time correlated to new fibrous root development.

RGA Greenhouse Drench Study with HLB Infected Seedlings May 4th, 20015



May 4th2015

May 4th2015

HLB infected Seedling above received 8 applications of RGA 10g/gallon at Two week intervals. Circles showing new fibrous root development and new shoot development on seedling.

RGA Greenhouse Drench Study with HLB Infected Seedlings May 4th, 20015

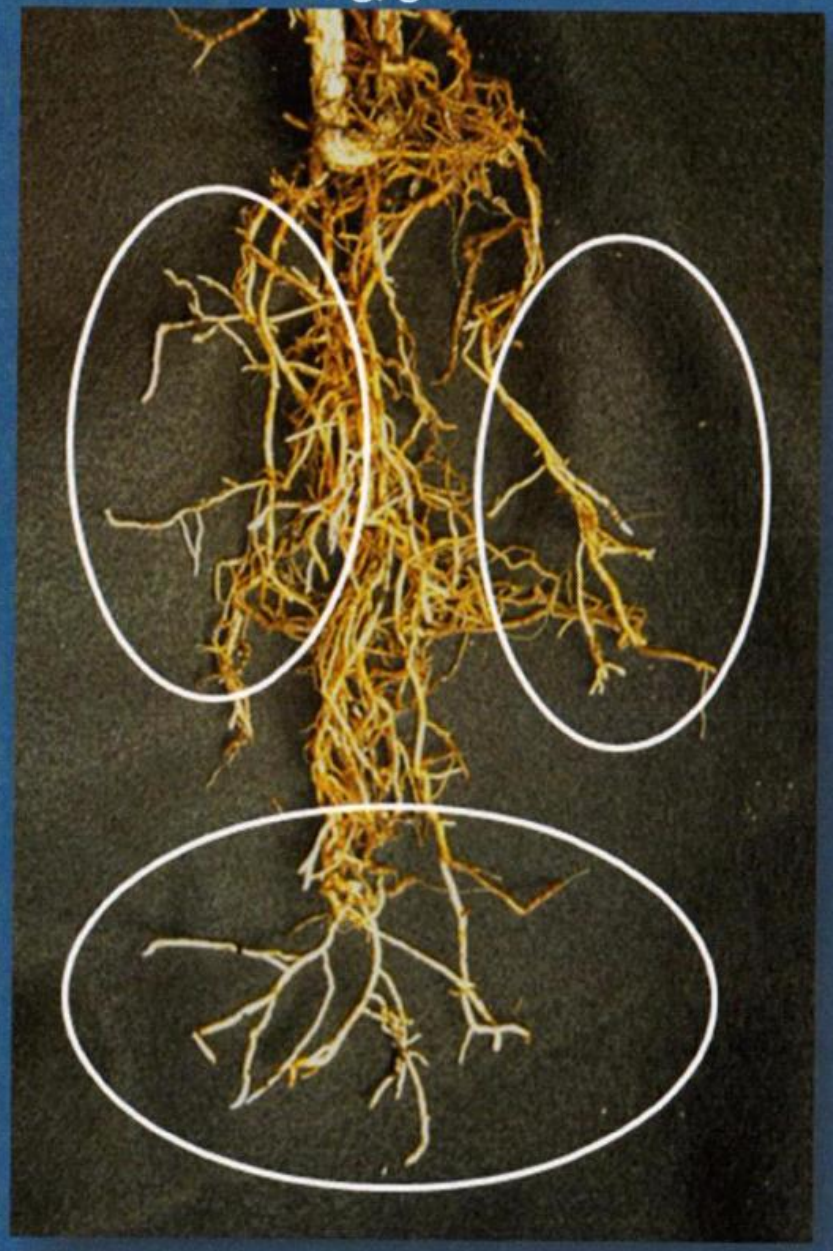
Aug. 13th 2014

May 4th2015

HLB infected Seedling above received 8 applications of RGA 10g/gallon at Two week intervals. Circles showing new fibrous root development after treatments. Note new white root growth.

(RGA) Stimulatory Root Growth Valencia Sweet Orange Greenhouse Study

August 14th – October 8th 2014
Two Treatments
10g/gallon



August 14th – Dec8th 2014
Eight Treatments
10g/gallon

RGA Greenhouse Drench Study with HLB Infected Seedlings June 6th, 2015

Untreated Control Trees Received Only Water and Liquid Fertilizer

10 Months from Start of Study

Plant 6 Untreated

June 6th2015

Plant 8 Untreated

June 6th2015

RGA Greenhouse Drench Study with HLB Infected Seedlings June 6th, 2015

Untreated Control Trees Received Only Water and Liquid Fertilizer

10 Months from Start of Study

Plant 7 Untreated

June 6th2015

Plant 9 Untreated

June 6th2015

RGA Greenhouse Drench Study with HLB Infected Seedlings June 6th, 2015

RGA Treated at 2 week Intervals 10g/gal. and Liquid Fertilizer

10 Months from Start of Study

Plant 11 RGA treated

June 6th2015

Plant 13 RGA treated

June 6th2015

RGA Greenhouse Drench Study with HLB Infected Seedlings June 6th, 2015

RGA Treated at 2 week Intervals 10g/gal. and Liquid Fertilizer

10 Months from Start of Study

Plant 1 RGA treated

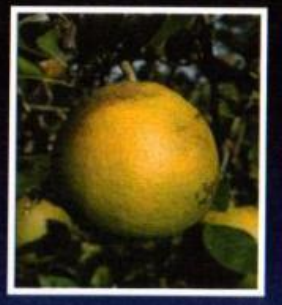
June 6th2015

Plant 5 RGA treated

June 6th2015

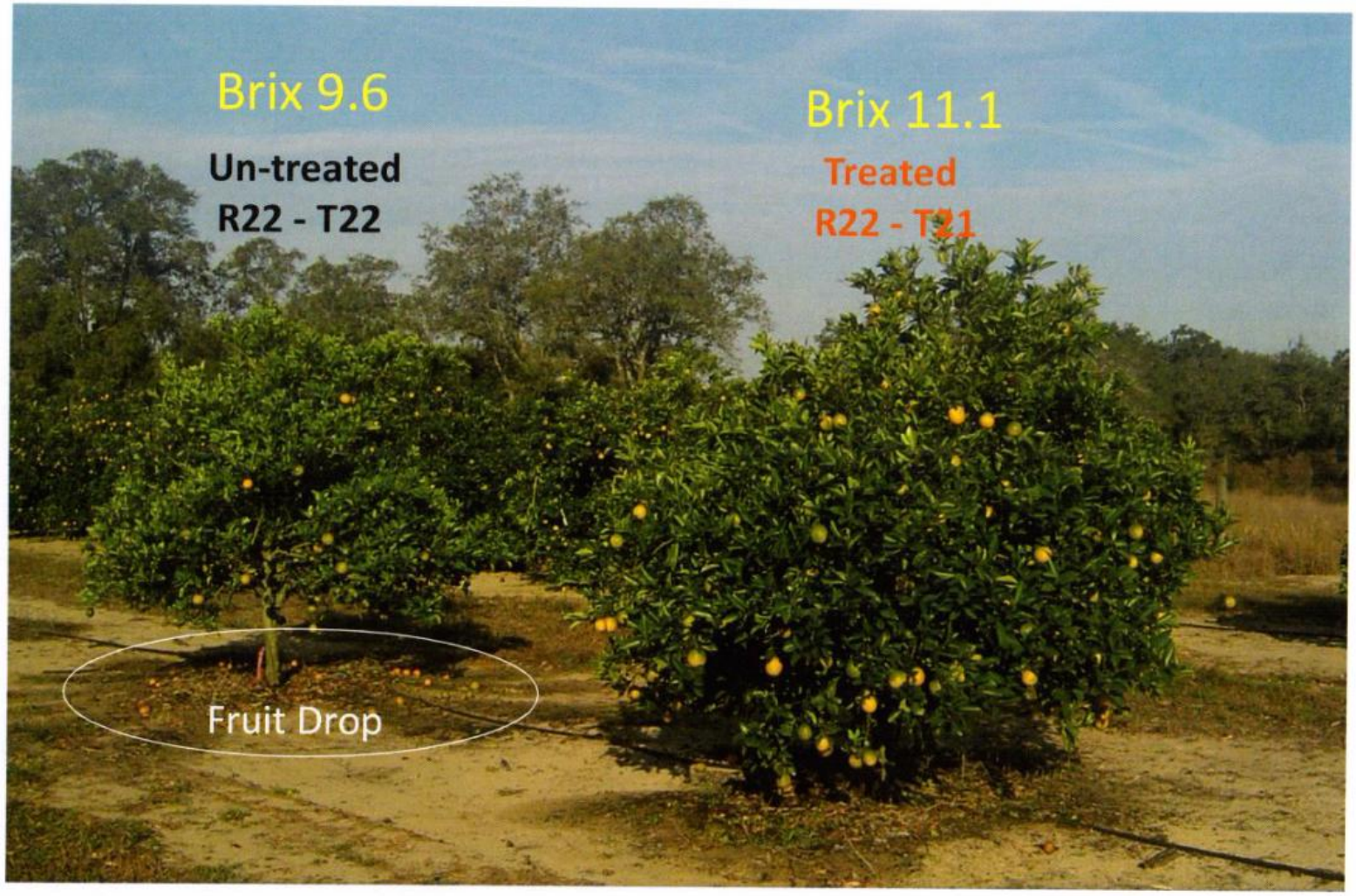
Dundee, Florida Field Trial (RGA)

Huanglongbing (HLB) Infected Citrus Trees aka Citrus Greening



- Experiment Started in August 2014
- RGA Microbial Inoculant - Root Spray Drench to Drip Line
- Two week interval between Treatments
- Flush Measurements 3 wk post Application
- Root Cores 2 and 6 months (Phytophthora and Nematodes)
- Fruit Drop and Volumetric Harvest Data (February 2015)
- Quantitative PCR (US Sugar Laboratory) Leaf Tissues

Central Florida RGA Field Trial – HLB Infected Sweet Orange – Set 2 Jan. 9 th 2015



Central Florida RGA Field Study Started in August 2014. Sweet Orange Trees Jan. 9th, 2015. Tree in Left of photo untreated (note heavy fruit drop. Tree on Right received 8 treatments of RGA at two week intervals. Treated tree had less fruit drop and significantly more new growth (Flush/shoots)

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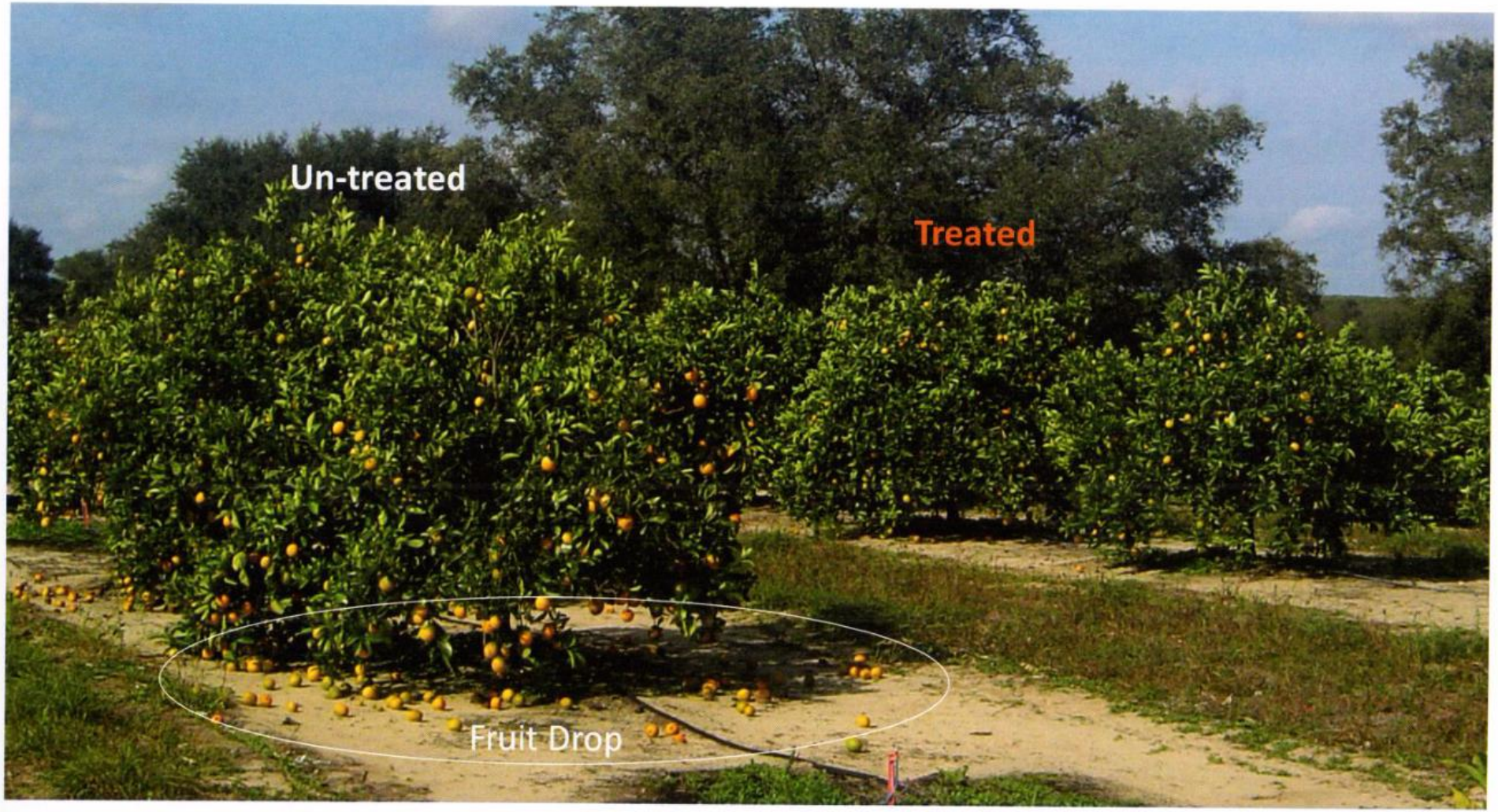
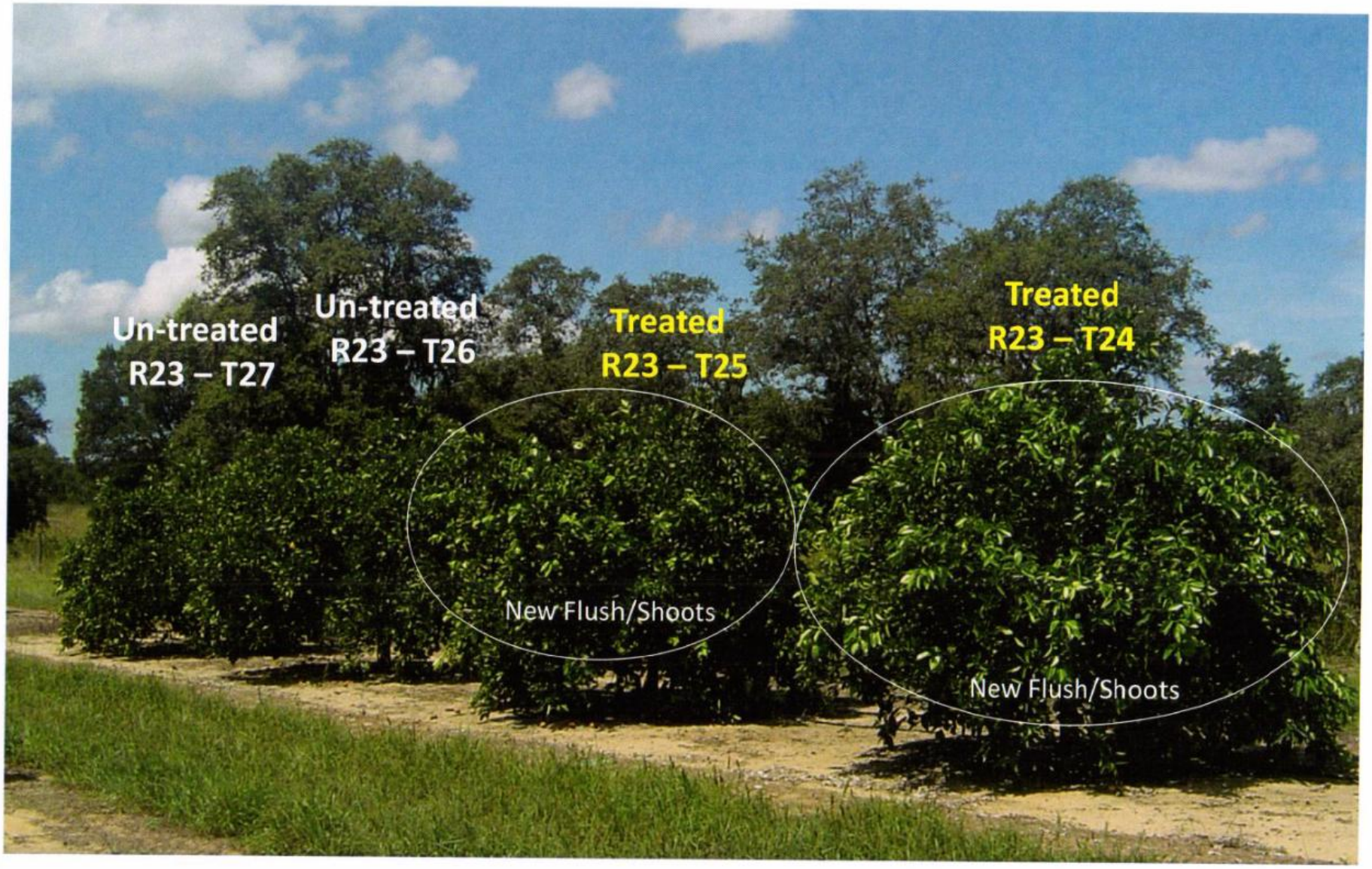
Central Florida RGA Field Trial – HLB Infected Sweet Orange – Feb. 11th 2015



Central Florida RGA Field Study Started in August 2014. Sweet Orange Trees Feb. 11, 2015. Trees in Left of photo are untreated (Note heavy fruit drop) Trees on Right received 8 treatments of RGA at 10g/gal at two week intervals. Treated trees had less fruit drop and significantly more new flush or shoots after Initial treatments.

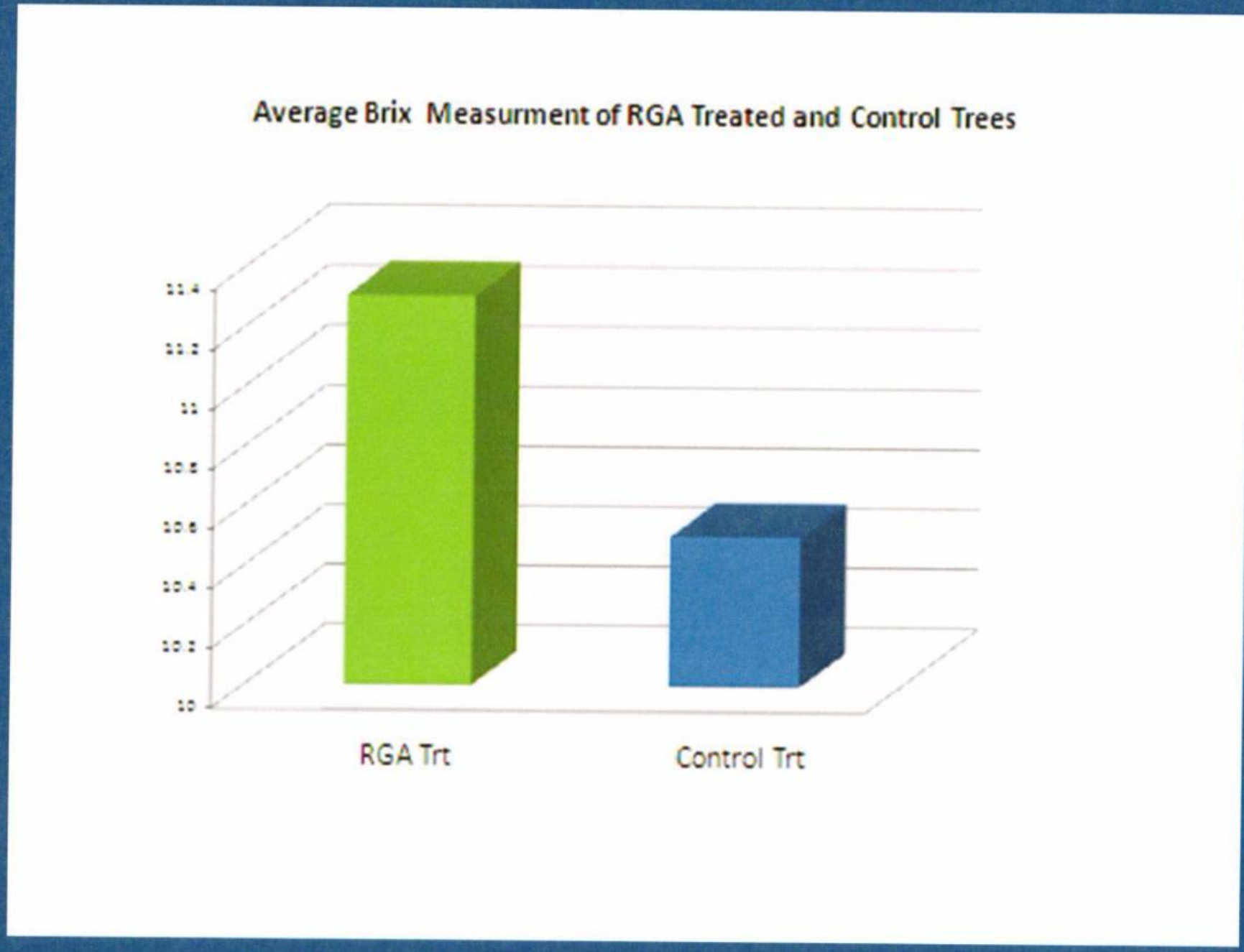
Central Florida RGA Field Trial – HLB Infected Sweet Orange – Set 8 Sept. 14th 2014

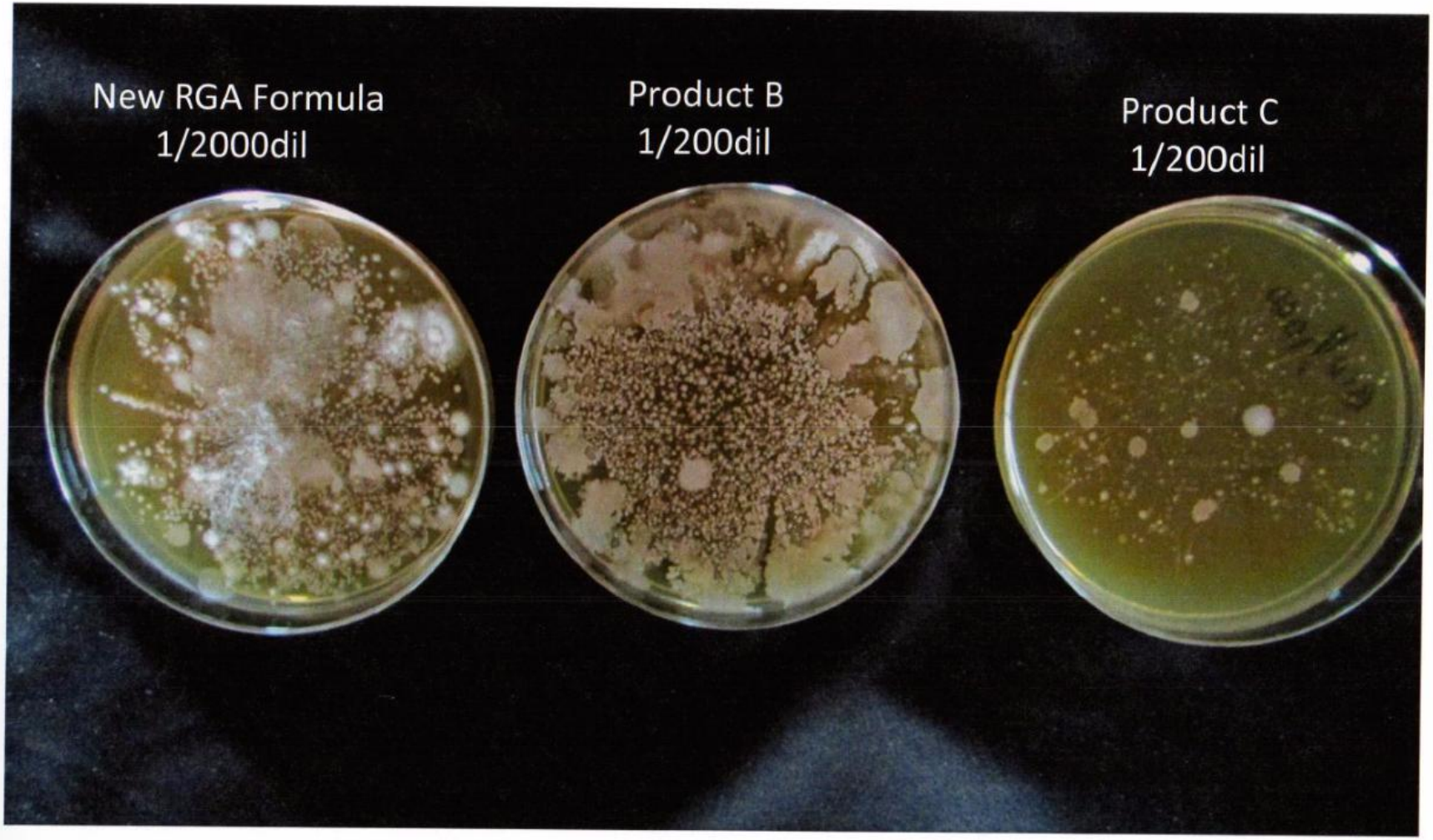


Central Florida RGA Field Study Started in August 2014. Sweet Orange Trees Sept. 14th, 2014. Tress in Left of photo untreated had minimal new growth Trees on Right received just 2 treatments of RGA at two week intervals. Treated trees had significantly more new flush or shoots after Initial treatments.

Central Florida RGA Field Trial – HLB Infected Sweet Orange – Set 3 Dec. 12th 2014

Central Florida RGA Field Study Started in August 2014. Sweet Orange Trees Dec. 12th, 2014. Tress in Left of photo are untreated and had more fruit drop and Brix or sugar content was lower than trees receiving RGA treatments.


Average Brix Measurment of RGA Treated and Control Trees
RGA Trt
Control Trt



Bacterial Concentration Dilution Plating RGA and competing products
Product B and C contain no fungi and counts are considerably less per ml (gram)

RGA

Diverse Microbial System

How it Works on Diseased Plants:

New Fibrous Root Growth

Reduce Tree Removal and Replacement due to Early Tree Decline

- Each of the various microorganisms in RGA provides various benefits including, Nitrogen Fixation, Production of plant growth hormones, increased disease resistance and decomposition of organic matter.

- This diverse microbial system delivered in a solid carrier stimulates fibrous root growth which enhances water and nutrient up-take which has occurred do to root loss during the infection process. The solid carrier also increases water retention and improves soil structure especially in sandy soils where it is needed.

- Infected plants initiate new roots and shoots (new leaves) which in turn provide photosynthates (sugars) to be transported once again throughout the infected plant