

# AVOCADO TRIAL

Virú / La Libertad / Perú

**AGRÍCOLA VIRÚ**

**JULY 2019**



*Product: REBEARTH 3.0*

*Producer: Agrícola VIRÚ*

*Place: Virú / La Libertad / Perú*

*Date: July 2019*

*Field Manager: Eng. Santiago Marquina*

*Trial Created by: Patricia Chirinos / Carlos Giuria*

## Characteristics:

1. *Crop: Avocado;*
2. *Variety: Hass ;*
3. *Application area: 0.93ha.*
4. *Plant quantity: 621*
5. *Product per plant: 1.55cc x plant*
6. *Soil: Sandy/Clay*

## Characteristics of application and control plots

Plots	Application or control	Number of plants per Ha.	Application area	Planting Date
<b>3921</b>	Control	648	0.97 ha.	25/06/2012
<b>3922</b>	<b>REBEARTH</b>	<b>621</b>	<b>0.93 ha.</b>	<b>26/06/2012</b>
<b>3923</b>	Control	610	0.90 ha.	27/06/2012

## Application Chart

Application date	Amount of Rebeearth/ Ha	Amount of Rebeearth / plant	Type of application	Application method	Crop Stage
06/Sep/2018	1L	1.55cc	Edaphic	System	Flowering
06/Oct/2018	1L	1.55cc	Edaphic	System	Fruit set
06/Dec/2018	1L	1.55cc	Edaphic	System	Fruiting
06/Feb/2019	1L	1.55cc	Edaphic	System	Maturation
06/Mar/2019	1L	1.55cc	Edaphic	System	Maturation

At the time of the first application, during the flowering stage, the plants presented stress caused by excess flowering, both in the control plots and the application plot. During testing in the second evaluation date, an interesting result was observed in the fruiting and setting stages of the plants in the application plot.



Fruit Count Chart			
Count	CONTROL PLOT (Plot 18 row 14)	REBEARTH APPLICATION PLOT (Plot 22 row 10)	Crop Stage
Plant 1	87 FRUITS	164 FRUITS	MATURATION
Plant 2	90 FRUITS	194 FRUITS	MATURATION



TRIAL OBSERVATIONS

- In the REBEARTH application protocol presented to the Agriculture company Virú, 5 applications per campaign were recommended for this Avocado variety. However, in the present study only 4 applications out of the 5 have been carried out but favorable results have been obtained compared to the control.
- It must be noted that at the time of the first application the plants in that area showed signs of stress, were flowering frequently and subsequently aborting and presented with chlorosis.
- During the fruiting and setting stages an improvement in foliage was observed and there were no signs of chlorosis. The development of fruit setting was better than the control.



- For the date of the third application a fruit count was carried out of control plants picked by Engineers or Agrícola Virú and of application plants picked by Terragrow Engineers. The results showed that the fruits of plants in application fields surpass the control by 100%. According to our experiences with this crop, REBEARTH improves dry matter and shelf life, as well as ensuring a uniform fruit setting which decreases abortion in avocado plants at this phenological stage.

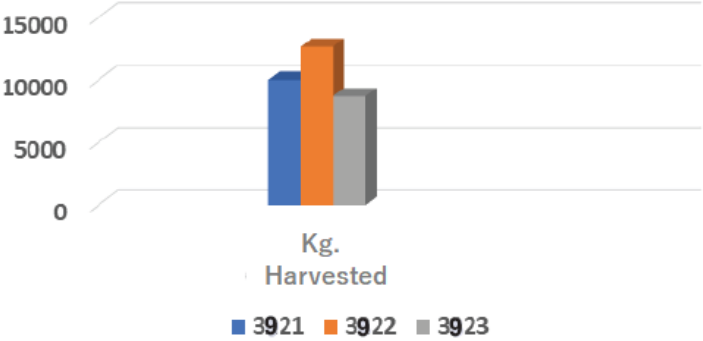


- It is important to note in this partial report that at the moment of the fourth application uniform fruits of good size and color were observed, as well as new shoots, whereas no uniformity or new shoots were found in the control fields.

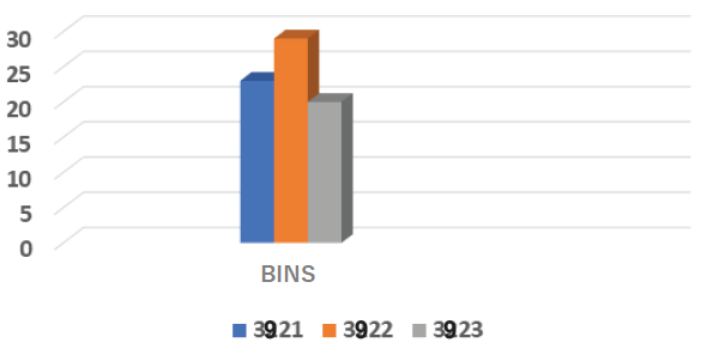


# FINAL RESULTS OF THE TRIALS

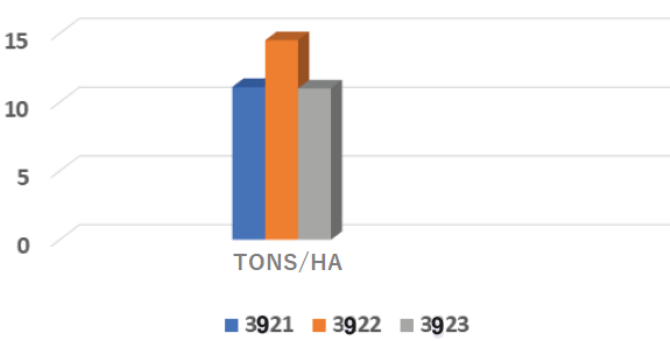
### Kilograms Harvested



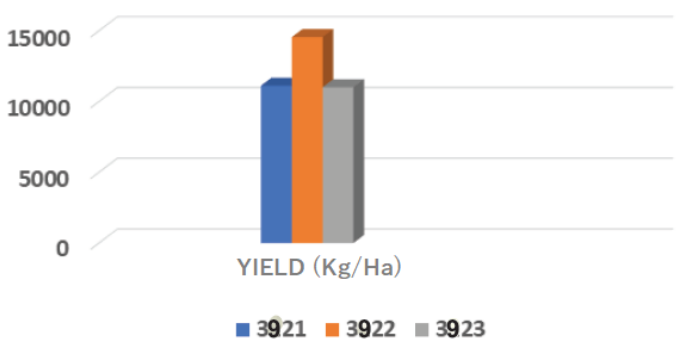
### Harvested Bins



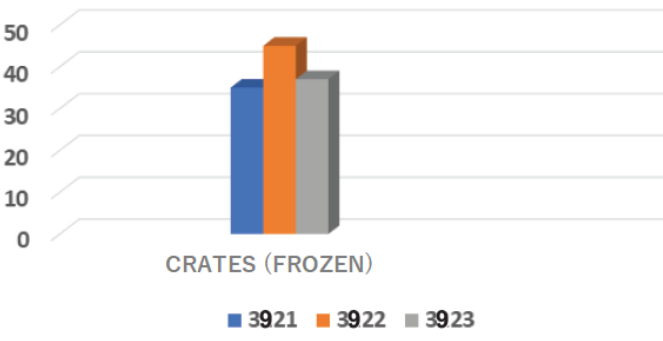
### TONS/HA



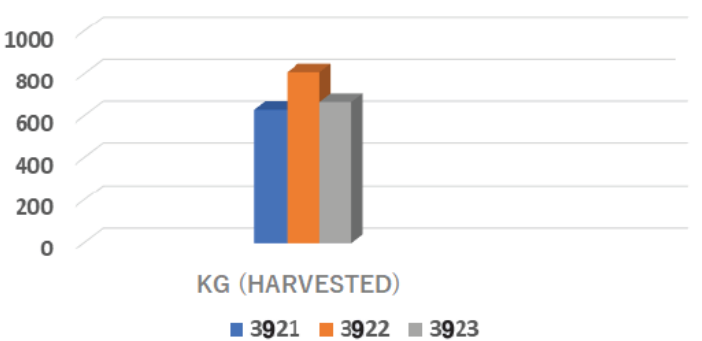
### YIELD (Kg/Ha)



### CRATES (FROZEN)



### HARVESTED KILOGRAMS



Control plot (3921)

REBEARTH plot (3923)

Control plot (3923)

The above graphs show that crops in the plot where **REBEARTH** has been applied, plot **3922**, surpass those in control plots **3921** and **3923** by a considerable margin in all measurements. This is consistent despite the crops being affected by a fungus (*lasiodiplodia*) during the setting stage. Plot 3922 was affected but its yield did not decrease substantially because one of REBEARTHs benefits is to increase the function of the plants immune system, diminishing biotic and abiotic stress.

- In the graph showing **Yield (Kg/ha)**, REBEARTH (3922) surpassed Control (3921) by 30.96% and Control (3923) by 32.20%.
- In the graph showing **Tons per Ha**, REBEARTH (3922) surpassed Control (3921) by 30.63% and Control (3923) by 31.82%.
- In the graph showing **Kilograms Harvested**, REBEARTH (3922) surpassed Control (3921) by 28.58% and Control (3923) by 21.63%.





# FRUIT MATURATION



Despite this trial being done in a homemade way, we can observe that the control fruit matured faster than the fruit to which REBEARTH was applied. There was faster maturation in plots where no REBEARTH was applied, which leads us to conclude that REBEARTH increased dry matter in the crop.