

November 18, 2013

# REPORT ON THE BEHAVIOR OF A **CHILI PEPPER (PAPRIKA)** PLANTATION UNDER THE INFLUENCE OF **TERRABELLA®**

## I. Introduction

In 2013, Mr. Dudi Koren of Kibbutz Shoval, Israel, agreed to conduct a trial of **TerraBella®** on the kibbutz' chili pepper (paprika), which, in total, covers 600 dunam (600,000m<sup>2</sup>).

## II. Test Process

Treated Area: 3.2 dunam  
(3,200m<sup>2</sup>)

Amount of TerraBella®: 1 liter

Applications	Date	Amount
#1	May 8, 2013	500 ml
#2	May 16, 2013	500 ml

Harvest: November 13, 2013

### Notes

- Mr. Koren and his workers prepared the solution of **TerraBella®**, according to directions, and, on May 8, applied it to two lots of 1.6 dunam each. This first application was done immediately after the seedlings transplant.
- A preliminary collection and measurement were conducted on October 2, 2013. Maturing fruit from plants from eight (8) meters long of four beds was selected. Peppers from the treated beds, as well as from the control, were weighed and recorded. The preliminary review measured a yield increase of 27%.
- The harvest and final measurement were conducted on November 13<sup>th</sup>. The measurement was performed on peppers harvested from all the plants in two (2) meter long lanes in four different beds, randomly selected from the treated and control beds.
- Present in the harvest and measurements were Mr. Koren's representatives and Mr. Nissim Barnea and Mr. Shimon Ben Haim of TerraBella Israel.



Fig. 1 Field of Chili Peppers in Kibbutz Shoval

### III. Results

#### A. FINAL COLLECTION - NOVEMBER 13, 2013

##### 1. Summary (TerraBella®-treated vs. Control)

	<u>TerraBella®</u>	<u>Control</u>	<u>Difference</u>
<b>Number of Plants</b>	139	131	6%
<b>Number of Fruits</b>	1,843	1,444	28%
<b>Weight</b>	10.05 Kg	7.87 Kg	28%

**Damaged fruit as percent of total reduced from 10% (control) to 8% with TerraBella®**

## 2. Results for TerraBella®-treated plants

### Summary – Treated with TerraBella®

Plants = 139	Undamaged	Total
Weight	10.05 Kg	10.50 Kg
Fruits	1,843	2,006
Mean Weight	5.45 grams	5.23 grams
% fruit damaged = 8%		

### Detail - Treated with TerraBella®

#### All the plants from 4mts<sup>2</sup>

	Bed 1	Bed 2
Number of Plants	65	74
Number of Fruits	889	954
Damaged Fruits	85	78
Weight of Fruits	4.50 Kg	5.55 Kg
Weight of Damaged Fruits	.15 Kg	.30 Kg
<b>Overall Weight</b>	<b>4.65 Kg</b>	<b>5.85 Kg</b>

## 3. Results for control plants

### Summary - Control

Plants = 131	Undamaged	Total
Weight	7.87 Kg	8.27 Kg
Fruits	1,444	1,603
Mean Weight	5.45 grams	5.16 grams
% fruit damaged = 10%		

### Detail – Control

#### All the plants from 4mts<sup>2</sup>

	Bed 3	Bed 4
Number of Plants	61	70
Number of Fruits	699	745
Damaged Fruits	80	79
Weight of Fruits	4.07 Kg	3.80 Kg
Weight of Damaged Fruits	250 gr	150 gr
<b>Overall Weight</b>	<b>4.32 Kg</b>	<b>3.95 Kg</b>



Fig. 2: Close-up of chili peppers drying, still in the field

**B. PRELIMINARY COLLECTION - OCTOBER 2, 2013 by farmer Dudi Koren)**

**1. Summary**

	<b>TerraBella®</b>	<b>Control</b>	<b>Difference</b>
Number of Plants	224	232	-4%
Number of Fruits	4,420	3,760	18%
Weight	27.54 Kg	20.65 Kg	33%

**2. Results for TerraBella®-treated plants**

	<b>All the plants from 4mts<sup>2</sup></b>	
	Bed 1	Bed 2
Number of Plants	120	104
Number of Fruits	2,212	2,208
Overall Weight	<b>13.48 Kg</b>	<b>14.06 Kg</b>

**3. Results for control plants**

	<b>All the plants from 4mts<sup>2</sup></b>	
	Bed 1	Bed 2
Number of Plants	112	120
Number of Fruits	1,920	1,840
Overall Weight	<b>10.00 Kg</b>	<b>10.65 Kg</b>





Fig. 3. Weighing the chili peppers in the field

#### IV. Conclusion

The measurements show that the microbes in **TerraBella®** resulted in higher overall yield (28%), more fruit (28%), more plants (6%) and fewer damaged fruits (-2%). Also, the farmer noted the brighter red color and fruit density in the drying plants treated with **TerraBella®**.

The **return on investment** for the farmer is central to the decision to use **TerraBella®**. For this harvest, considering the cost of the **TerraBella®** and revenue per unit, the **28% yield increase** generated an **ROI of 347%**.

**TerraBella®** has shown that it generates a high ROI, while contributing to a more biologically balanced soil, with correct root development and better absorption of nutrients from the soil.

**For more information about TerraBella® or this case study, please call Aquabella Organic Solutions at 1-707-829-3347 or email [info@aquabellaorganics.com](mailto:info@aquabellaorganics.com).**