

# TERRABELLA™

SUSTAINABLE SOIL CORRECTIVE & ROOT INOCULANT

01/10/2013

## CASE STUDY: REPORT ON THE BEHAVIOR OF A BANANA CROP UNDER THE INFLUENCE OF TERRABELLA®

### I. Introduction

Although not in the tropics, banana cultivation in Israel has been a profitable enterprise, mostly because of the prices the fruit can get in local markets. In order to overcome the climatic limitations, especially wind damage to the leaves, and the high cost of irrigation water, there is a need for large investments in the infrastructure of the crop. Yet the results have been amazing as the yields are above the sixty (60) tons per hectare and more. These yields are well above the typical yields of banana-exporting countries - thirty (30) tons per hectare.

However, banana farmers in Israel are eager to find ways to improve the productivity of their crops, reduce fertilizer and water use, shorten the growth period or any other means of efficiency or higher profit



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## II. Test Process

Treated Area: 300 plants in 300<sup>2</sup> meters

Amount of TerraBella®:

Applications	Date	Amount
#1	Jan 2012	125 ml
#2	Feb 2012	65 ml
#3	March 2012	60 ml

Harvest; July 1-7, 2012

### Notes

- In November 2011, a team from **Terrabella®** met banana farmers at **Kibbutz Ginosar, located on the banks of the Sea of Galilee**, and the parties reached agreement on the terms of a test.
- The **TerraBella®** team advised to start treatment prior to transplant and flowering (to maximize results). **TerraBella®** was applied by the farm agronomist to randomly selected groups of existing beds through the drip irrigation system. (The farmer did not know which plants had been treated with **TerraBella®**; only the farm agronomist was knowledgeable of and executed the plan.)
- At ripeness, the clusters were collected, counted, and weighed.

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### III. Results

Table 1 - Summary

	Weight (kg)	Number of Clusters	Mean Weight per Cluster (kg)
TerraBella®	<b>4,515</b>	<b>121</b>	<b>37.31</b>
Control	1,989	50	39.78
Difference	<b>+127%</b>	<b>+142%</b>	<b>-6%</b>

Table 2 - Details

Date of Flowering	Weight (kg)	Number of Clusters	Mean Weight per Cluster (kg)
June 1			
TerraBella®	724.5	21	34.50
Control	192	6	32.00
June 2			
TerraBella®	591	18	32.83
Control	518	12	43.17
July 1			
TerraBella®	434	12	36.17
Control	69	2	34.50

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Table 2 – Details (continued)

July 2			
TerraBella®	1387	36	38.53
Control	351	9	39.00
July 3			
TerraBella®	1378	34	40.53
Control	859	21	40.90



## IV. Conclusion

- During the measurement period, there was an impressive difference in the number of banana plants already flowering. Flowering of plants treated with **TerraBella®** occurred several weeks before flowering of control.
- Banana plants in the Ginosar Valley area suffer from the strong winds during winter, which causes their leaves to tear and rip and which not only increases the risk of infections and decrease of their photosynthetic capacity but also increases the water evaporation. **TerraBella®** treated plants looked greener and healthier.
- Though there was a small reduction in the average weight of the clusters, this was offset by the advancement of the ripening, the additional clusters, and the greater total weight from the **TerraBella®**-treated plants.