



EcoMicrobials™



EcoFlora Field Trial in Processed Tomatoes

Product: EcoFlora
Crop: Tomato

Trial setting: Field trial
Location: Tampa, Florida

Methods

Tomatoes seedlings were planted in a commercial farm under two different treatments. The treated area was 3 beds (1.6 meters wide by 91.5 meters long) and 3 adjacent beds were used as control leaving one bed in between as buffer zone.

- **Control treatment:** conventional methods of culture were used.
- **EcoFlora treatment:** same methods of culture were used than in the control treatment except that EcoFlora was applied at planting, and after 15, 30 and 45 days after planting at a prorated dose rate of 7 ounces (200 gr) per acre per application (500 gr/ha/apl.).

Tomatoes were weighted, washed, towel dried, and sorted for defects, then cut in half for determination of quality factors on the microwave break juice. Following the microwave treatment, pulped juice samples were evaluated for titratable acidity (TA) using titration with NaOH (AOAC Intl. 2000). The remaining juice was deaerated and the temperature adjusted to 25 ± 0.2 °C, then used for determination of °Brix (soluble sugars). Independent duplicate Bostwick consistency readings were obtained on each sample (Barrett and Anthon 2001). Readings reported are the distance (cm) that a volume of juice of fixed dimension flowed in a trough in 30 s. A smaller reading corresponds to less flow or a product of higher consistency.

Results

	Yield (lbs/acre)	Brix	TA%	Bostwick
EcoFlora	44,225	5.96	0.37	14.13
Control	38,624	5.55	0.31	16.30
Differences	+ 14.5%	+ 7.01%	+ 19.35%	- 13.31%

Yield obtained was 14.5% higher under the EcoFlora treatment compared with the control. Quality parameters were all significantly better under the EcoFlora treatment as higher brix, higher TA and lower Bostwick measurement indicate higher yield and quality of paste.

References

- AOAC International. 2000. Official methods of analysis. 17th ed. Gaithersburg, Md.: AOAC Int.
- Barrett DM, Anthon GE. 2001. Lycopene content of California-grown tomato varieties. *Acta Horticulturae* 542:165-74.