

BiOWiSH® Crop Technology

BiOWiSH® Fruit & Vegetable Wash Improves Fruit Quality for Ecuadorian Banana Exporter

Executive Summary

Adding BiOWiSH® Fruit & Vegetable Wash to the banana washing process improves fruit quality and resolves latex issues. EXBAFRUC Cia Ltda. sought a cost-effective solution to resolve latex issues without harsh chemicals. They conducted a series of trials to demonstrate the benefits of adding BiOWiSH® Fruit & Vegetable Wash to the banana wash process. Implementing BiOWiSH® Fruit & Vegetable Wash resulted in successful latex control and improved fruit quality when compared with bananas that were not treated with BiOWiSH®.

Background

EXBAFRUC Cia Ltda. is one of many independent producers exporting Ecuadorian bananas to the Eastern European and Russian markets. With an average export volume of 120,000 boxes per month, it represents roughly 1% of the Ecuadorian banana export market. Along with many other banana producers, EXBAFRUC is currently using BiOWiSH® Fruit & Vegetable Wash in their packing plants to resolve their latex issues and realize savings in their packing operations. With BiOWiSH®, fruit quality is better maintained during the shipping process.

Objectives

The objective of this study was to demonstrate the benefits of using BiOWiSH® Fruit & Vegetable Wash on fruit quality during shipping.

Solution

Manufactured in the United States, BiOWiSH® Fruit & Vegetable Wash is a powerful organic composite biocatalyst product that breaks down complex organic molecules, resolving latex issues and improving production issues. It can supplement all banana wash process system types and management practices.

Previous research has shown that BiOWiSH® Fruit & Vegetable Wash is effective at increasing storage life; maintaining freshness; making fruit cleaner; reducing the use of harsh chemicals, water and electricity; improving wash and discharge water; and saving man-hours used for cleaning.

BiOWiSH® Fruit & Vegetable Wash



- Increases storage life
- Cleaner fruits & vegetables
- Resolves latex issues
- Reduces wash process chemicals
- Reduces odor from wash water
- Reduces water & energy usage
- Reduces cleaning and labor
- Approved under Washington State Department of Agriculture Organic Food Program

Available Sizes

- 100g/3.5oz
- 1kg/2.2lbs
- 5kg/11lbs
- 10kg/22lbs

Results

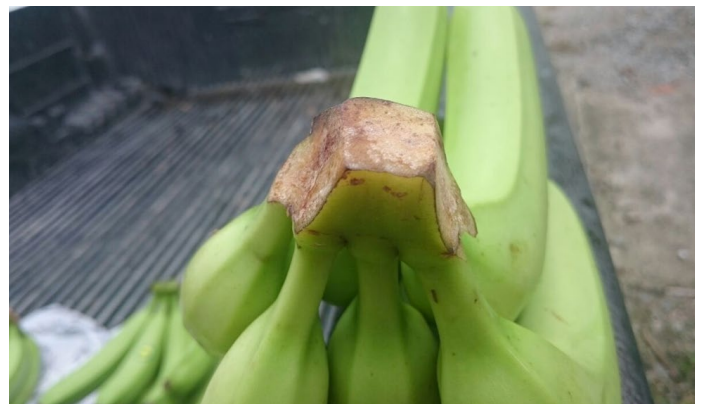
Bananas treated with BiOWiSH® Fruit & Vegetable Wash were compared to control bananas, which were washed without BiOWiSH®. Bananas were then stored in boxes at room temperature for over one week to simulate shipping conditions. At the end of this period, boxes containing control bananas showed gel latex stains on the fruit peel, crowns, and bags, as shown below

Control - No BiOWiSH®



By comparison, boxes that contained bananas that were treated with BiOWiSH® Fruit & Vegetable Wash had no evidence of gel latex. See pictures below.

BiOWiSH® Treated





Below is a side-by-side comparison of latex residue left in the packing boxes by the bananas. On the left is the bag from the control bananas with noticeable latex buildup. On the right is the bag from the BiOWiSH® treated bananas which appears clean.

No BiOWiSH®



BiOWiSH® Treated



Conclusion

Adding BiOWiSH® Fruit & Vegetable Wash to the banana washing process resolves latex problems, improving fruit quality during and after shipping. The powerful microbial technology in BiOWiSH® Fruit & Vegetable Wash continues to deliver consistent benefits in fruit quality and operational costs savings to packing plants around the world. Banana processors like EXBAFRUC Cia Ltda. can improve their operation and economics by implementing BiOWiSH® Fruit & Vegetable Wash into their current practice.



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