

BiOWiSH® Fruit & Vegetable Wash

Álvarez & Marín Corporation Costa Rica

Background

Álvarez & Marín Corporation is a 30-year-old Costa Rican company that grows and sells peanuts, cashews, bananas and other products.

As part of the company's commitment to environmental and social responsibility, they partnered with a BiOWiSH Technologies Distributor in Costa Rica to test BiOWiSH® Fruit & Vegetable Wash.

Objectives

The goals of the testing were to improve water quality while reducing electricity cost, water usage, labor requirements for cleaning, and chemical product usage. The goal also included removing the adhesive nature of the banana latex resulting from the packaging process.

Solution

BiOWiSH® Fruit & Vegetable Wash is 100% natural, bio-degradable and safe for everyday use in a diverse range of applications. It has been shown effective at improving produce storage life, reducing the adhesive nature of latex, reducing electricity usage, improving water quality, reducing water usage and saving man-hours used for cleaning.

Implementation Program

BiOWiSH® Fruit & Vegetable Wash was dosed into the banana wash pool the night prior and throughout the production day at a total concentration of 5ppm. The pump is turned on for pool water recycling four times per day.

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

Implementing BiOWiSH® Fruit & Vegetable Wash allowed Álvarez & Marín Corporation to save more than \$1,000 USD per month in costs associated with water usage, electrical usage, cleaning product usage, labor costs and products used to remove latex from the bananas. The savings were calculated after accounting for the cost of BiOWiSH® and are as follows:

Monthly Savings for 100 M ³ Pool	
Water	25%
Electricity	22.5% (\$550 USD)*
Cleaning Products	\$250 USD
Labor	30% (\$150 USD)
Product for Latex	Saving 100% (\$85)
Total	\$1,035 USD

* With a 7.5hp water pump

Conclusion

Using BiOWiSH® Fruit & Vegetable Wash improves banana packaging processes by reducing costs associated with labor, water usage, electricity and cleaning products. BiOWiSH® Fruit & Vegetable Wash has also been shown to improve water quality and reduce latex issues. Lowering the usage of electricity and water is better for the environment. Reducing cleaning and latex issues which often contain potentially harmful chemicals, is beneficial to a company's environmental footprint and improves working conditions for employees by reducing their interaction with potential irritants.

The economic benefits associated with the incorporation of BiOWiSH® Fruit & Vegetable Wash increases the volume of exportable bananas, achieved through a reduction of latex stains on the bananas, and through an improvement in the quality during storage and shipping.



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