

Egg Cleaning Case Study

The BIRKO logo is a circular emblem. It features a blue outer ring and a green inner ring. The word "BIRKO" is written in white, bold, sans-serif capital letters across the center of the blue ring.

A large egg processing facility conducted a study to validate the efficacy of Birko's Egg-Shellent, an all-in-one shell egg cleaning and defoaming solution. To conduct the study, the egg processing facility used its egg equipment to count the number of eggs that have residual soil post egg washer, giving an unbiased means to measure the performance of the egg washing chemistry. The performance of the Egg-Shellent product was compared to the previous day's results using a competitor's product.

Testing

During the test, the eggs were cleaned in a 180-gallon washer basin. Prior to introducing the Egg-Shellent solution, the basin had eight inches of foam present from residual soil and cracked eggshells. The facility manually dosed Egg-Shellent into the washer basin every 30 minutes, maintaining the concentration at 0.5 to 0.75 ounces per gallon of water. This equated to a pH between 10 and 11.

The egg processing facility washed 615,593 conventional eggs with Egg-Shellent, and 735,434 conventional eggs were washed with a competing solution.

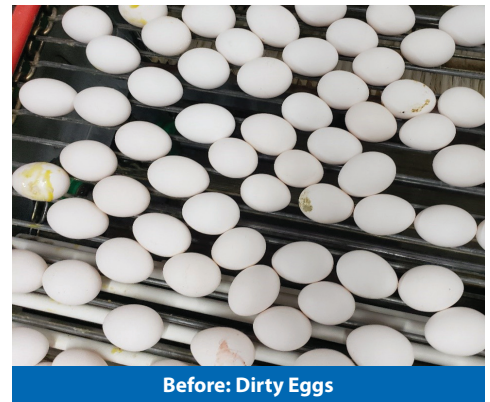
Results

The Egg-Shellent solution reduced the foam height in the basin from over eight inches to less than one inch, and it remained at that level for the duration of the test. The significant foam reduction eliminated the need for a separate anti-foam agent, unlike the competing solution.

Out of the 615,593 conventional eggs washed with the Egg-Shellent solution, the facility detected 38 dirty eggs or 0.0062%. Out of the 735,434 eggs washed with a competing solution, the facility detected 195 dirty eggs or 0.0265%.

| Company | Washed Eggs | Dirty Eggs | Percentage of Dirty Eggs |
|------------|-------------|------------|--------------------------|
| Birko | 615,593 | 38 | 0.0062% |
| Competitor | 735,434 | 195 | 0.0265% |

The Egg-Shellent solution resulted in a 4-fold decrease in the number of dirty eggs and provided a greater level of foam control in the basin compared to the competitor's product.



Nonfood Compounds
(Q1)

Egg-Shellent: Egg Cleaning Case Study



Nonfood Compounds
(Q1)

NONFOOD COMPOUNDS REGISTRATION

NSF International Registration

Egg-Shellent is registered by NSF International, a leading global independent public health and safety organization. As a leader in safety standards and quality, NSF offers independent, science-based third-party registrations that show a company's adherence to a benchmarked set of quality guidelines.

To receive registration, Birko passed a stringent evaluation of the formulation and label of the product.

About NSF International

NSF International is a global independent organization that facilitates standards and protocols development, and tests and certifies products for the food, water and consumer goods industries to minimize adverse health effects and protect the environment.

Founded in 1944, NSF is a Pan American Health Organization/World Health Organization Collaborating Center on Food Safety, Water Quality and Indoor Environment.

WHY BIRKO

At Birko, we take food safety seriously. Nothing is more important to us than making sure the food chain is safe, secure and pathogen-free.

- We turn our expertise, equipment and chemistries into innovative solutions that save lives, reduce risks and protect brands.
- Companies in the protein, further processing, produce and brew industries trust us to solve their sanitation and cleaning challenges. They choose us – and stay with us – for our level of customer care and support that is second to none.
- We've been protecting the food chain for over three generations, and we'll be doing it for many more.

Birko continues to innovate food safety solutions. Contact us to learn more.

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