

CUSTOMER EXPERIENCE

TURKEY FARM EXPERIENCES DRAMATIC IMPROVEMENT IN TURKEY HEALTH & MORTALITY RATE DURING FIELD TRIAL OF CLEARITAS® 401

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INTRODUCTION

A major chemical partner of Blue Earth Products® represents a multi-national client in the food production and agricultural space. In partnership with this customer, Blue Earth Products' partner has been conducting an ongoing field trial of Clearitas 401, Blue Earth Products' proprietary formulation of oxidized chlorine specifically engineered for scale and deposit removal in agricultural enterprises and food processing, at a turkey production facility in the Mid-West.



The customer manages its turkey raising operations in groups of ten farms. They receive and raise four flocks at each farm annually, which amounts to approximately 104,000 turkeys per year. A sponsor supplies the chicks, feed, and antibiotics, which are components of their well-defined, established turkey production process, to the farmer. In turkey production, there are three factors that determine a good, productive flock of turkeys: mortality, medicine, and feed conversion. Each farm is graded internally on these three factors among others. The higher the rank a farm receives the more compensation for the farmer ranging from \$2.13 to \$2.75 per bird per cycle.

Each farm acquires approximately 13,000 turkeys per flock that have been hatched and are a day old when received. The turkeys are housed in U-shaped barns with the smaller section holding the youngest turkeys for 8 weeks when they outgrow the space. The flock is then rotated to a larger section of the barn where they live for another 12 weeks before they are transferred to processing. During this 20-week maturation period, normal flock losses are approximately 15% with higher mortality in the older birds, presumably due to advanced health issues and bird size.

Each barn includes 170 bell drinkers for the turkey's water supply. The sponsor requires the bell drinkers to be cleaned 3 times per week, which had not been accomplished at the facility monitored for the trial due to time and financial constraints. At this farm, the current cleaning methods using a chlorine water treatment had proven to be ineffectual with the slime building up the day following cleaning treatment. Subsequently, significant issues began to develop with the watering systems as they accumulated scale in the bell drinkers and biofilms in the lines. Scale and biofilm build up reduces water quality, which has been shown to adversely affect the flock outcome.

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RESULTS

The partner recommended that the farmer try augmenting the normal chlorine water treatment process in barn "A" with Clearitas 401 along with sodium hypochlorite as the primary disinfectant to clear the biofilms and scale from the lines and drinkers. The first installation was mid-flock cycle, specifically week 11 of a 20-week cycle. The day after cleaning the water system with Clearitas 401, the farm staff saw a significant improvement with no scale build up. Prior to treating the water system with Clearitas 401, the farmer mentioned that the bell drinkers needed to be replaced, but now they were actually starting to work again. It had been determined that the high mortality rate of the birds, 15%+, was attributed to poor water quality, so the farm personnel was very pleased with the results.



Antibiotics, supplied to the farmer by the customer, are added to the water in week 14 through 18 and discontinued for the final two weeks. In the initial, mid-flock cycle, antibiotics were not added at all. The flock was determined to be healthy enough to not require antibiotics.

The only process that has changed is the introduction of Clearitas 401, and the farm personnel are making a direct correlation that improved water quality is producing better results. The new flock, which is now 2 weeks and 5 days old, is seeing a very low mortality rate. In the past 25 days, they have only lost 44 turkeys, which is a significant decline in mortality that averages 9- 12 per day. The farm staff believes this flock looks healthier than past flocks. Since the farm has never seen such a dramatic improvement in the health of the turkeys in a short amount of time, they plan to use Clearitas 401 for the next flock cycle.

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