

Improving Testing Program Efficiency — A Case Study

As a staple food group, dairy products have been, and continue to be, among the most regulated foods in U.S. history. It comes as no surprise then that dairy manufacturers and their food safety teams are constantly looking at how their current EMP is performing.

Over the course of several months, we partnered with a large dairy producer to explore the challenges they faced with their EMP, and how automating a manual process helped to drive increased efficiencies, reduce pathogen positives, and ultimately, improve the bottom line.

The Challenge

For a large dairy product manufacturer with facilities spanning multiple countries, there is no question of the amount of pressure the organization is constantly under when dealing with the safety of its products, and the resulting brand reputation risks that must be managed. At the start of the study, the EMP across all locations was very manual in terms of both the workflow and information management involved, as well as data management.

More troubling was the fact that, on average, the company saw a positive pathogen hit rate of 6%–8% with a low number of tests being performed. The company became concerned with not knowing if the number of tests, types of tests, and location of tests were giving them the data needed. They believed this problem could be solved by automating their current EMP and gaining access to a larger set of testing data while expending less effort to do so.

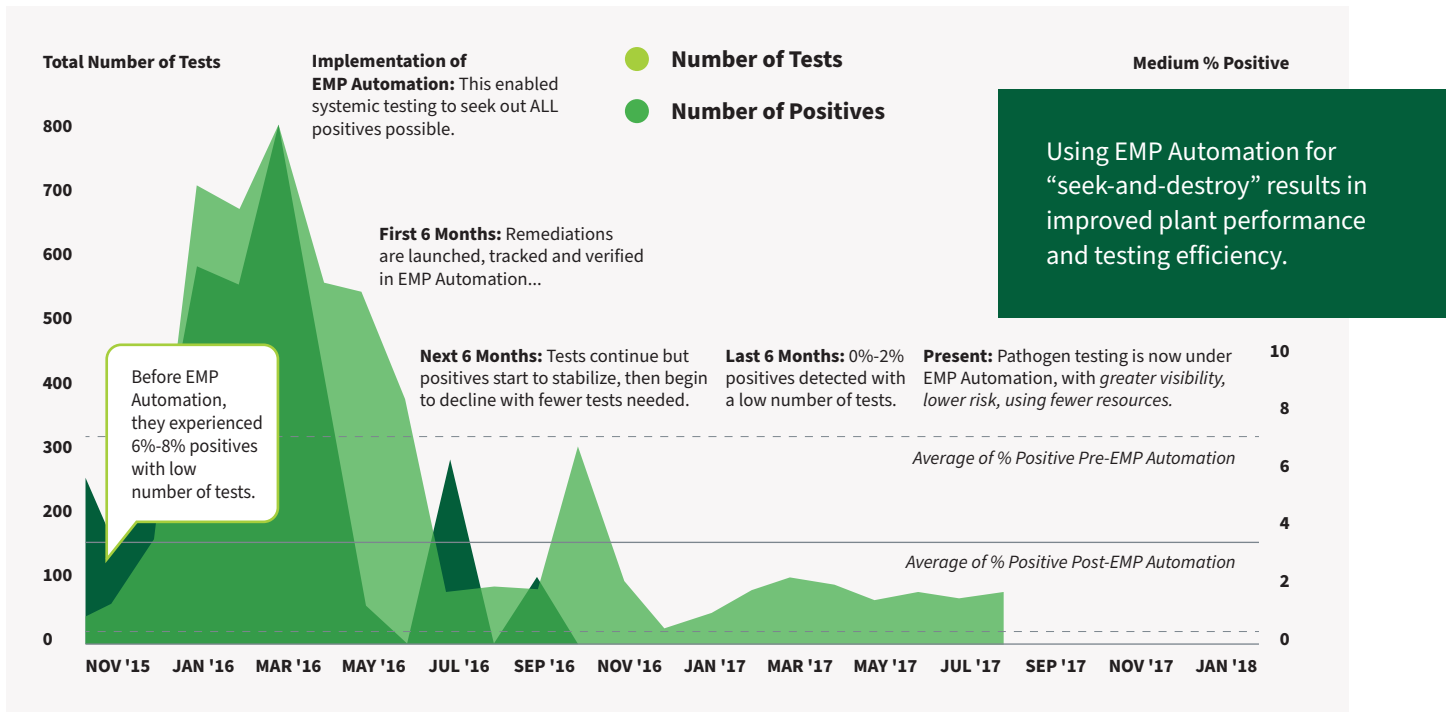
The Approach

The dairy products company realized that to identify the correct number, location, and type of tests, they first needed to increase overall testing to see where all of the existing issues were occurring. At the start of the study, the company invested in an increased volume of systematic pathogen testing schedules to seek out and find all presumed positives within their facilities. This approach helped them identify all areas where issues existed and better informed them about the effectiveness of their sanitation efforts.

At first, as testing increased, so did the presumptive positive results. Over time, as the new sanitation procedures were implemented, fewer positive results were found. As the study continued, a new baseline of testing, test types, and correlated sanitation procedures was refined and implemented. This resulted in a revamped remediation program that included a collection of corrective action steps that have been proven, through the study's data, to be more effective.



Figure 3: EMP Impact – Automated EMP Testing Drives Reduced Positives and Proper Testing Volume/Types



The overall financial result?

While the company did see a significant jump in lab fees for the increased testing required for the early phases of the study, they realized an overall drop in remediation costs over time that halved their labor and materials costs for testing in just one year.

The positive hit rate reduction, combined with a leveling of the swabs per month volume, provided a more efficient means of budgeting and operating their EMP workflow, rather than the crisis-mode approach of the past. As a result, they reduced associated costs of waste, rework, delayed production starts, and downtime that were caused by frequent food safety issues. Just 15 minutes of production time gained back per facility yielded many multiples of the cost of the study.

