



FOOD PRODUCTION: A CASE STUDY



IMPROVES PEST CONTROL AT FOOD PRODUCTION FACILITIES

Abstract

This four-year study at a food production account sought to confirm the effectiveness of iQ products. Notably, the study aimed to identify how much iQ products improve pest management professional (PMP) efficiency and efficacy in reducing rodent populations at food production accounts. Over the course of the study, outdoor rodent activity was reduced by 60% and indoor rodent activity was reduced by 87%. The study confirmed the use of iQ products reduced service time by 66%. iQ data showed technicians when and where rodents were traveling, allowing them to perform proactive rodent control. It also gave technicians more time to focus on other integrated pest management (IPM) tasks and allowed them to reduce rodenticide usage.

Introduction

Pest management professionals are calling for advanced rodent control solutions. iQ traps and bait stations contain wireless rodent sensing technology, empowering technicians to efficiently monitor and service their accounts.

A study was conducted from May 2020 – April 2024 to verify that iQ traps and bait stations improve PMP efficiency and efficacy at reducing rodent populations at food production accounts. There was significant rodent pressure on the facility's exterior.

Technology Overview

Each iQ device contains an integrated Bluetooth sensor that collects rodent activity data each time a rodent enters the station or is caught by a trap. This gives technicians the exact time and location of rodent activity, helping them efficiently tailor their pest management plan.

The Bluetooth sensor allows technicians to verify rodent activity from up to 100 ft. away, saving them time and energy from checking empty traps and hard-to-reach devices.

After each service visit, rodent activity data is automatically uploaded to the free Bell Sensing portal and converted into easy-to-read reports. PMPs can take advantage of this data to proactively target infestations where it matters most. Historical data also makes showing customers the value of professional service easier than ever.

Objectives

The objective of this study was to evaluate the efficacy of iQ's wireless rodent sensing technology at food production accounts. By deploying devices at the account, the study seeks to:

- ▶ Identify how much iQ devices improve service time at the account compared to traditional rodent control products.
- ▶ Assess the effectiveness of iQ products at reducing rodent populations.
- ▶ Collect rodent activity data and identify population trends to provide proactive, targeted control

Methods and Findings

During the study period, the account was set with the following iQ devices:

- ▶ **51 Express iQ** bait stations
- ▶ **81 24/7 iQ** multiple-catch indoors

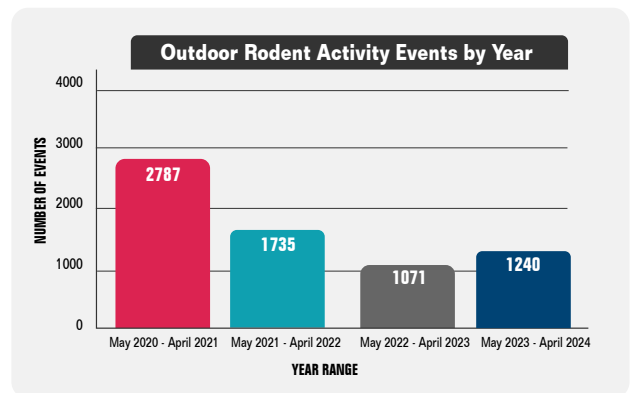
The account was a 30,000 sq. ft. food production facility in an urban area in central California. The account was serviced weekly for four years, for a total of 224 services.



Outdoor Control

Express iQ bait stations containing cholecalciferol rodenticide were placed around the facility's exterior. From May 2020 to April 2021, there were 2,787 rodent activity events. From May 2021 to April 2022, there were 1,735 events. From May 2022 to April 2023, there were 1,071 events. From May 2023 to April 2024, there were 1,240 events.

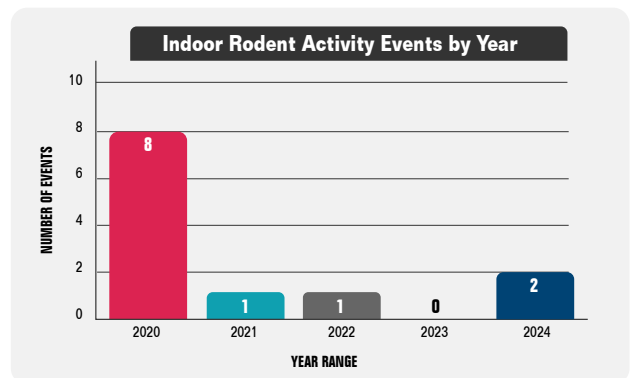
After the first year of iQ usage, there were 1,052 fewer events, which is a 38% reduction in rodent activity from the first year. The second year, there were 664 fewer events than the previous year, which is a 38% decrease in activity. The third year of service had 169 more events than the previous year, which was a 16% increase in activity. However, this is still 56% decrease from the first year.



Indoor Control

24/7 iQ multiple-catch traps were placed in the facility's interior near entry points and along shelving. In 2020, there were 8 total captures. In 2021, there was 1 capture. In 2022, there was 1 capture. In 2023, there were no captures. In 2024, there were 2 captures.

After iQ service, indoor rodent activity decreased by 87% on average.



Analysis

Service time was reduced by 66%. When the account was set with traditional traps and bait stations, service took **3 hours**. With iQ, service time was reduced to an average of **1 hour**.

iQ rodent activity data enabled better bait station placed. After one year of iQ service, rodent activity was reduced by 60% on average for the next 3 years.

The drastic improvement in outdoor control led to a significant improvement in indoor control. Notably, there were no indoor captures in 2023, with an average of one capture per year after the first year.

Customer Benefits

- **Brand protection.** Preventing infestations protects the customer's products, and their reputation, from being damaged.
- **Lower risk.** With a major reduction in rodent activity, there is a lower risk of property damage as well as a lower risk of rodents spreading disease, injuring workers, or causing product recalls.
- **Reduced cost.** Because rodent populations are proactively targeted, infestations are knocked down before they spread. This leads to fewer callbacks.
- **Transparency.** Because customers can have access to after visit summaries, they see exactly when and how technicians are protecting their property. They also can see historical data showing how rodent infestations have been brought under control.
- **Easier audits.** Customers more easily passed audits with access to quarterly and annual reports of rodent activity and pest control service.
- **Less stress.** Rodent activity data provides proof that service is working. This gives customers peace of mind that their inventory and employees are safe.
- **Fewer disruptions.** Because technicians only need to service devices with verified activity, there are minimal business disruptions.
- **Responsible application.** iQ products allow technicians to use non-toxic baits to monitor rodent activity, switching to rodenticides when there is proven activity. This reduces overall rodenticide use.

Conclusion

- ▶ iQ improves rodent control at food production accounts. Rodent activity was reduced by 60% on average.
- ▶ iQ reduced service time by 66%, giving technicians more time to perform inspection and exclusion.
- ▶ iQ data enables effective and proactive control, resulting in a more robust IPM.

The managing pest control company easily integrated iQ products into its workflow, which allowed them to drastically reduce rodent activity at the account. iQ's data-driven service enabled technicians to target key areas, leading to proactive rodent control to quickly get the account under control.

To learn more about how  can revolutionize rodent control at your accounts, contact your Bell representative or visit www.bellsensing.com

