



PHARMACEUTICAL MANUFACTURING: A CASE STUDY

IMPROVES PEST CONTROL AT PHARMACEUTICAL MANUFACTURING

Abstract

This four-year study at a pharmaceutical manufacturing facility 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 pharmaceutical manufacturing accounts. Over the course of the study, outdoor rodent activity was reduced by 58% and indoor rodent activity was reduced by 50%. The study confirmed the use of iQ products reduced service time by 50%. iQ data informed technicians, giving them 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 rodent sensing technology, empowering technicians to efficiently monitor and service their accounts.

A study was conducted from January 2021 – December 2024 to verify that iQ traps and bait stations improve PMP efficiency and efficacy at pharmaceutical manufacturing accounts. The service was performed by Killum Pest Control. There was a large amount of outdoor rodent pressure at the account.



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 pharmaceutical manufacturing 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 through the use of data.
- ▶ 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:

- ▶ **36 Express iQ** bait stations
- ▶ **21 24/7 iQ** multiple-catch mouse traps

The account is a pharmaceutical and ingredients manufacturer in Texas' coastal region. The facility is surrounded by fields.

The account was serviced approximately monthly for four years, for a total of 60 services.

Outdoor Control

Express iQ bait stations containing bromadiolone rodenticide were placed around the facility's exterior. From January 2021 to December 2021, there were 7,842 rodent activity events. From January 2022 to December 2022, there were 3,295 events. From January 2023 to December 2023, there were 3,374 events. From January 2024 to December 2024, there were 3,131 events.

After the first year of iQ usage, there were 4,547 fewer events, which is a 58% reduction in rodent activity from the first year. This number stayed relatively steady, with an average of 58% reduction in rodent activity.

Additionally, the max number of events in a single day was 136 in September 2021. In 2024, the maximum number of events in a single day was 40 in December.

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 2 captures. In 2021, there were 2 captures. In 2022, there was 1 capture. In 2023, there was 1 capture. In 2024, there was 1 capture.

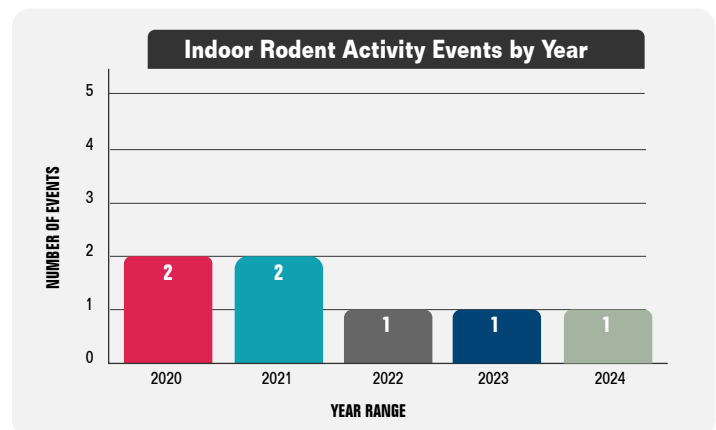
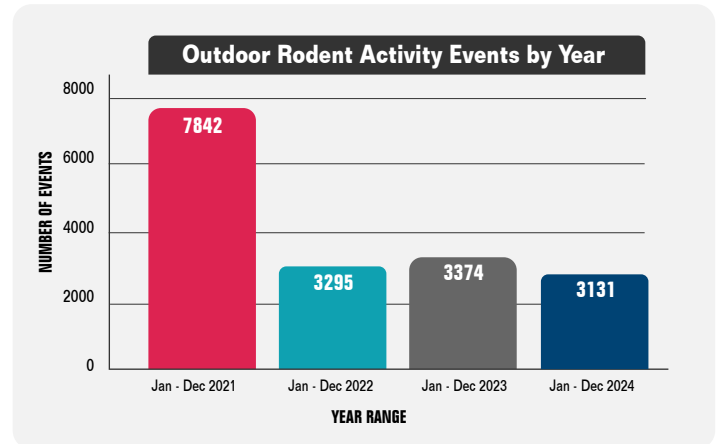
In total, there was a 50% reduction in indoor rodent activity per year.

Analysis

Service time was reduced by 50%. When the account was set with traditional traps and bait stations, service took **2 hours**. With iQ, service time was reduced to **1 hour** on average.

iQ's rodent activity data enabled better bait station placement. It also reduced rodenticide use because technicians only placed rodenticide when data justified it.

The improvement in outdoor control led to an improvement in interior control. Notably, after 2022, there was only one capture each year at the beginning of the year.



Customer Benefits

- **Lower risk.** With a major reduction in rodent activity, there is a lower risk of property and reputation damage as well as a lower risk of rodents spreading disease to or injuring workers.
- **Easier audits.** Customer more easily passed audits with access to quarterly and annual reports of rodent activity and pest control service.
- **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.
- **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.
- **Customer satisfaction.** iQ devices lead to more proactive and efficient rodent control, leading to happier customers.
- **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 pharmaceutical manufacturing accounts. Rodent pressure was reduced by nearly 60%.
- ▶ iQ reduced service time by 50%, giving technicians more time to perform inspection and exclusion.
- ▶ iQ data also enables effective and proactive control, resulting in a more robust IPM program.

The managing pest control company drastically reduced outdoor rodent control activity at the account. iQ's data-driven service enabled proactive rodent control, allowing technicians 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