



CASE STUDY

A PERFECT POUR STARTS WITH A PEST-FREE BREWERY

From craft microbrews to traditional beers that are enjoyed across the globe, each must be produced in facilities that are free of pests and the potentially harmful food-borne illnesses that they carry.

Pests, including rodents, flies, birds and a variety of stored product pests, can spoil finished products and unprocessed commodities leading to potential product recalls and putting the facility at risk for a failed third-party audit.

Sprague Pest Solutions has extensive experience preventing and eliminating pests in local micro-breweries, and regional and multi-national brewing facilities. For Sprague, the perfect pour starts with a pest-free brewing facility.

CHALLENGES

By the nature of their work, breweries are an ideal environment for pests. They store and use large quantities of grains, hops, yeast, and other ingredients in the brewing process that are attractive food sources to pests like rodents, insects (stored product pests, flies, etc.), and birds. These ingredients are delivered on railcars and trucks increasing the risk of that pests will be introduced to the facility in these shipments.

Breweries also use significant amounts of water in the brewing, cleaning, and cooling processes. This creates a moisture-rich environment that can attract flies, cockroaches, and rodents, all which thrive in damp conditions.

The brewing process can be messy and spillage of ingredients or food waste materials such as spent grain and yeast is common. These materials can accumulate in drains, under equipment or in cracks and crevices, providing an ideal food sources for pests. Bottling areas also can be problematic with significant spillage that can attracts flies and ants.

The warm temperatures, combined with the moisture inside a brewery, particularly in areas where fermentation occurs, also contribute to attractive environment for pests, and a challenge for QA managers and their pest management service provider.

“It’s water and more water,” said Todd Fowler, ACE, a Sprague Route Manager, when talking about the biggest challenges of providing pest control services to his brewery clients. “There are a lot of drains in brewing facilities and with the volume of water present, there will always be a higher risk for pests.”

Fowler said in addition to the ever present presence of water, sanitation and cleaning practices, the high volume of incoming shipments and lack of product rotation, can contribute to the complexity of preventing pest issues in brewing facilities.



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Todd Fowler, ACE

Route Manager
Sprague Pest Solutions

"It becomes a team effort with our client to stay on top of sanitation and cleaning, product storage and rotation and facility maintenance to reduce pest conducive conditions," said Fowler. "We work to proactively solve problems up before they become big issues."

Sprague Route Manager Ryan Ulrich said it is often the buildings themselves that are a leading cause of pest issues in breweries.

"Not all breweries are the same when it comes to construction," said Ulrich. "You can have an audited modern, state of the art brewing facility that is maintained to keep pests out and you can have a start-up craft brewer in a converted 100-year old warehouse with multiple pest entry points."

Ulrich works with one brewery client that operates out of a former pre-WWII warehouse built of corrugated metal that offers numerous gaps for pests to exploit.

Fowler faced a similar challenge in a brewery he services. The buildings, which contain multi-story brewing tanks holding thousands of gallons of beer, lack modern insulation and when the temperatures outside increase, condensation collects on the tanks and walls which attracts a variety of flies – small, house (*Musca domestica*) and cluster (*Pollenia pediculate*).

SOLUTIONS

Effective pest control in breweries requires "stacking the effects" of the pest management tools available to both brewery management and pest control professionals.

Sanitation

Thorough sanitation and cleaning protocols in brewing facilities ensures product quality, consumer safety, regulatory compliance, and more efficient operations. It also helps reduce pest pressure.

Keeping production and storage areas clean of raw ingredient spills, food waste and excess moisture eliminates food and water sources that attract pests. Regular deep cleaning under and inside equipment is also necessary.

Poor sanitation can lead to flies, rodents, and stored product pests contaminating raw ingredients such as hops, barley, and yeast, leading to spoilage or introducing harmful bacteria. This contamination can ruin batches of beer and compromise the taste, quality, and safety of the final product.

Sprague works with brewery QA staff or ownership to educate them on the importance of sanitation as a critical part of their pest control programs.

Monitoring

The large quantities of raw ingredients that are used, stored and frequently delivered to breweries makes them vulnerable to stored product pests including warehouse (Trogoderma variabile), confused flour (*Tribolium confusum*) and saw-toothed grain beetles (*Oryzaephilus surinamensis*).

Stored product pest management requires a proactive approach and both Fowler and Ulrich deploy monitoring and mating disruption programs in their brewery accounts. These monitoring units provide them with valuable pest trend data letting them know if stored product pests are present and pinpointing where in the facility they need to focus efforts.



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“When the conveyors transport the malt, barley and grains it generates lots of dust which attracts pests,” said Fowler. “The dust gets in cracks and crevices or under and on top of equipment, and we need to make sure stored product pests don’t become an issue. We accomplish that with monitoring and trapping.”

Insect light traps are another dual purpose tool used in breweries facing flying insect issues. Not only will they knockdown pest populations, but they contribute actionable pest trend data that helps pest control professionals and QA teams adjust programs as needed.

Exclusion/Structural Maintenance

If pests cannot gain access to a brewing facility, then QA managers sleep easier. That’s why exclusion and staying on top of structural maintenance is critical.

As mentioned earlier, brewing facilities are in structures that cover the gamut of age and physical condition.

“An important part of any pest control program in a brewery is staying on top of structural maintenance and exclusion, especially in older structures where construction practices may not be as conducive to keeping pests out,” added Ulrich.

Close attention should be paid to loading dock areas where a missing door sweep or poorly maintained air door is an open invitation for rodents, birds and other pests. Ventilation openings, utility or ingredient transport extrusions, HVAC units and entry doors and windows should all be kept in good repair using the heavy-duty exclusion materials to deny pests’ access.

Employee Education/Digital Logbook

Training employees to notice the signs of pest infestations or conditions conducive to pests (i.e., excess moisture, inadequate sanitation, poor ingredient storage practices, etc.) is another valuable tool in keeping breweries pest-free.

Sprague’s digital Logbook allows for real-time logging and sharing of information related to a brewing facilities pest control program.

“It is important to stay vigilant with employees on training and pest-awareness,” said Fowler. “With the technology offered by the Logbook, employees can scan QR codes to report a sighting or other pest issue and we are automatically made aware of it and can react appropriately.”

The Logbook also allows brewery managers to effectively manage all the documentation detailing the specifics of their pest control program. During a third-party audit, this information needs to be organized, complete and readily accessible to auditors.

“The goal is to have our clients audit ready at any time,” said Fowler. “When the auditors arrive all the information is dialed in for them in the logbook. It makes the audit process easier for both auditors and clients and delivers the intended results.”

RESULTS

Designing and implementing effective pest control programs in breweries delivers multiple benefits. From protecting the product and consumers who enjoy beer from the harmful pathogens that pests can carry that lead to food-borne illnesses, to safeguarding the brand and creating a healthier work environment for employees, pest control plays a significant role in the brewing process.

Effective pest control also supports a brewery’s business operations by preserving the quality and



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quantity of raw materials, minimizing waste and reducing costs. It also significantly reduces the risk of product recalls, which are not only financially damaging, but will tarnish brand loyalty.

And for breweries that are subject to third-party audits, having an effective pest control program in place gives brewers peace of mind that their facilities are protected, all documentation is in order, and that their operations can go on safely without the threat of pests interfering.



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