



RODENTS IN MILLING



Rodents pose a serious threat to food processing facilities such as flour and grain mills. Not only does their presence pose a serious health threat to consumers, but they can also tarnish the reputation of suppliers and cut business ties that lead to profit losses.

Before getting to this point, however, professionals in the milling sector may be able to prevent rodent issues by knowing the signs of infestation.

Identifying a problem

There are many signs that a milling facility has a rodent problem, such as:

Droppings – This is most likely the first sign of a serious rodent infestation. Look for rodent feces throughout the facility.

Urine stains – The smell of urine may be an easy signifier, but you can observe stains under a blacklight.

Tracks – In milling, you have the benefit of grain dust on surfaces or floors that allows you to spot tracks and tail marks in the dust.

Gnawing – Check for gnawing marks in walls, ceilings, storage spaces and near furnaces.

Burrows – Burrows made of rubbish and vegetation may be found in walls or secluded areas.

Grease marks – Dirt and oil marks left behind by rodents' fur may show up along walls and forms of entry.

Nests – Check commonly secluded areas for nests made of shredded material like cloth or paper.

Live or dead sightings – Be aware of live rodents scurrying around closed quarters, especially when you least expect it. Also be cautious as you may find dead rodents throughout the facility.

Odors – Musky odors, most likely from deceased rodents or pest urine, can be found in secluded areas, such as poorly ventilated rooms.

Old Industry, old buildings

Milling is the original form of food processing, dating back to pre-colonial times when grain was milled manually. As Europeans settled in North America, they brought with them modern technology for flour processing. In fact, Arva Flour Mills, established in 1819, is the longest-operating mill in North America, according to The London Free Press. With buildings that old, the milling industry is particularly susceptible to rodent infestations.

"With old buildings, you have stone walls with lots of opportunity for entry," explained Sandra Bishop, Branch Manager at Abell Pest Control.

Preventing entry is step one in preventing a rodent infestation. As buildings age, the stone can crumble, crack or chip. Crumbling



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stone, brick or other building materials can provide harborage for rodents to use for nests. Coves, or cave-like hollows, can appear in worn stone and provide cover for small rodents. Entry points into a building can be created by cracks in stone or gaps between windows and doors as the various building materials expand and contract with weather changes.

Consider conducting regular inspections of a building's exterior that will identify these types of damage that lead to entry points or provide harborage. Stucco and mortar can be used to fill in holes between stones and cover the face of the stones to prevent rodents' entry into cracks. Caulking can be used as a filler between buildings materials to prevent openings from appearing.

Exterior environment

"Rats love living along water-beds," said Bishop.

Because mills originally needed a water source for operation and shipping, most are situated near rivers and surrounded by wooded areas. Harborage is plentiful due to the twigs, leaves, and brush surrounding mills. Food can be found in the form of grain, seeds and grass. These ideal nesting materials, coupled with large water and food supplies, provide everything needed to build and sustain a large pack of rodents.

Structural damage

Due to the fact that many mills are built using older construction methods, it can be particularly expensive to repair masonry and original detailing. Rodents can damage the structural integrity of a building by gnawing on walls and floors. In this case, the damage is two-fold: the building itself is damaged, and new entry points are created for additional rodents.

Rats also love to chew on electrical wiring and, occasionally, fuel lines. Exposed wiring or fuel leaks can cause fires throughout a building. Taking precautionary measures by fixing outstanding structural flaws at the first sighting of an issue can keep pests from returning and also reduce risk for devastating building damage caused by leaks and fires.

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Health concerns

Anytime food products are involved, the health concerns brought on by a rodent infestation become extremely important. Most milling systems are self-contained and allow few opportunities for rodent entry. However, while grain is stored in silos, it presents a unique challenge as it's almost impossible to tell if a rodent has entered the silo considering the sheer size of these storage buildings.

Leptospirosis, Salmonellosis, Rat Bite Fever and Tularemia can all be passed on through contaminated food, according to the Centers for Disease Control and Prevention. Avoid contamination by storing all grain in tightly sealed storage containers and inspecting storage facilities for signs of rodents on a regular basis.

Lymphocytic Chorio-meningitis (LCM) and the more fatal Hantavirus Pulmonary Syndrome, can be transmitted from breathing or coming in contact with rodent droppings and urine. LCM can cause types of meningitis, encephalitis and meningoencephalitis, which can all lead to hospitalization. To protect employees, make sure to clean floors and counters regularly and thoroughly.

Keep staff educated to prevent infestation

Rodent issues, especially in large settings like food processing facilities, can turn into a devastating infestation in a matter of days. Staff members need to be educated on the importance of taking precautionary preventative measures to make certain a small population of rodents doesn't multiply rapidly. Treating the building's exterior and creating a coordinated plan to clean and take care of the inside of the mill can ensure the safety of the staff as well as the supplier and consumers who depend on the facility for goods and services.

Abell Pest Control is one North America's leading professional pest management companies. White Papers are supplied by Abell's national Quality Assurance team.

Sources

Client interview and notes

<http://www.lfpres.com/2016/07/06/arva-miller-keeping-up-for-now>

<https://www.cdc.gov/rodents/diseases/direct.html>

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