



## PREVENTING RODENT MIGRATIONS



Although some food facilities will see similar levels of rodent pressures all year, there can be seasonality to rodent activity for others. Higher rodent activity can occur during the fall, especially when a facility is located in an agricultural area. Harvesting of fields and the movement of harvested grain can mean higher rodent pressures in neighboring food facilities. Whether a facility has year round pressure or seasonal pressure, there are preventative steps that can be taken to prevent rodents from impacting food safety.

### THE FIRST LINE OF DEFENSE

The first line of defense for a facility against rodents is its exterior perimeter. Food processors should maintain a landscape and building exterior which reduces the conditions conducive to rodent survival and denies pest access. The basic needs of rodents include food, water and shelter. Minimizing the availability of these resources for survival should be the goal. Steps to take in limiting conducive conditions and exclude rodents include:

- Keeping dumpster areas and dumpster pads clean of food wastes which can support rodents.
- Selecting plants which are less attractive to rodents. Some plants can provide food in the form of seeds or fruits, some plants can provide cover in which rodents can go undetected.
- Avoid ground covers and low growing plants which can conceal rodents and rodent burrows. Plants with a v-shaped growth pattern are preferred where the ground can be viewed and inspected.
- Maintain a vegetation free barrier close to the building and make sure trees and shrubs are trimmed back and do not touch the structure.
- Bulk unloading areas can be prone to food spillage. Keep these areas as clean as possible to eliminate food for survival.
- Keep doors closed when not in use and maintain seals to exclude pests when doors are closed. A mouse can enter a crack as small as  $\frac{1}{4}$ " and a rat  $\frac{1}{2}$ ". Exterior sealing efforts should be made to prevent entry to these levels of exclusion. Stainless steel mesh sealants, stainless steel mesh based door sweeps and dock plate brushes or seals can be used as part of the exclusion process. Stainless steel mesh exclusion products can be purchased under the trade name, Xcluder™.
- Make sure openings around pipe/wall junctures and other utility lines are sealed.
- Fix leaks and drainage issues to keep water sources to a minimum.
- Install rodent equipment on the exterior for monitoring and control. Traps or baits can be used depending on species and sensitivity of the area.
- Don't underestimate the importance of the roof and other upper sections of the structure. Both roof rats and mice can find entry at upper points.



## THE SECOND LINE OF DEFENSE

Similar steps to reduce available food, water and shelter should be made on the interior. Proper sanitation efforts, reduced access to harborage and minimizing water sources are the goal. Rodent monitoring devices should also be part of the program to check the effectiveness of exterior defenses and alert the pest management professional of additional steps and changes required in the pest management program. Inspection of incoming goods is critical in excluding rodent entry on shipments. Not all rodents will enter from the building perimeter. Food facility staff serves a role in checking shipments to make sure that mice or rats are not hiding or nesting in pallet loads. Both mice and rats will utilize pallets to nest and may be transported from one facility to another via shipments. Mice in particular can come in on shipments and because they do not have a requirement for free drinking water, may remain in a pallet stack of food for long periods of time undetected. A good inspection of incoming goods which focuses on checking the center of the stacked product on the pallet, and between the pallet runners, is important in finding these rodent stowaways.

Regular inspections should be conducted to look for rodents and their signs. These signs may include rodent fecal pellets, gnawing and sebum smears or grease marks. Typically, rodent devices are placed on walls bordering the exterior for monitoring purposes. Interior walls and warehouse storage bays are typically not monitored unless historical evidence has indicated a need. Areas which may be at risk for infestation should have an ongoing visual inspection program at a minimum. Fecal pellets, sebum and gnawing can tell us where rodents are moving and where to place additional control devices. Inspections should be 3 dimensional in nature and be cognizant that mice and rats can be in ceiling voids, run along upper beams, harbor in wall voids and sub slab. Inspect for signs of the pests and deficiencies, which may require sealing, as part of an ongoing program.

### About the Author

*Patricia Hottel is technical director at McCloud Services and has over 35 years of pest management industry experience. Hottel is a board certified entomologist and a member of the National Pest Management Association's Commercial and Fumigation Committees. She is also a former member of the board of directors of the National Pest Management Association (NPMA) and the Illinois Pest Control Association (IPCA). She has served on the board of directors for the professional pest management fraternity, Pi Chi Omega, is a past chair and current member of the Copesan Technical Committee, is a past chair of NPMA's exam review board, and the NPMA Technical Committee. Hottel holds a bachelor's degree in entomology from the University of Georgia and a master's degree in instructional technology from the University of Central Missouri.*

### About McCloud Services

Founded in 1904, McCloud Services, based in South Elgin, Ill., is the leader in food protection services throughout the chain of custody – from grain elevator to grocery store. McCloud Services is known for its integrated approach to pest management, specifically designed for the food supply chain of custody. Serving the largest food-related brands in the U.S., the company has earned a reputation as the "food protection experts." McCloud Services has locations in 11 states with nine service centers.

McCloud Services is a founding member and shareholder in Copesan, an alliance of premier pest management companies with locations throughout North America. Headquartered in South Elgin, Illinois, McCloud Services has locations in Illinois as well as throughout Indiana, Iowa, Kansas, Kentucky, Missouri, Tennessee, Ohio and Wisconsin.

For more information, please visit [www.mccloudservices.com](http://www.mccloudservices.com)