IN THE DIRT

Keeping Mice Out

By: Kelly Feehan, Nebraska Extension Educator

When it's cold outside, mice try to find warmth inside. In one year, all offspring and subsequent generations from a single pair of mice could add up to 10,000 mice. Hence they are a common problem.

Dennis Ferraro, Nebraska Extension wildlife specialist, recently shared some tips for keeping mice out of residences and for trapping them. According to Ferraro, understanding the abilities of mice will help in keeping them out. For example, an adult mouse can squeeze through an opening as small as three-eighths inch. Like cats, their whiskers tell them if the opening is large enough.

Mice are able to jump straight up two and a half feet and across three feet. They can climb brick and stucco, and walk on about one-tenth inch diameter wire. Mice can run up to six miles per hour; and drop vertically eight feet and keep running. The home range of a house mouse is usually a 20 foot radius, but their curiosity will have them exploring up to 200 feet from home base. Their preferred path is along walls, whiskers guiding the way. Mice urinate and defecate on the go, as many as 80 droppings a day. For identification, their black, quarter-inch droppings are pointed on both ends. Feces carry disease-causing organisms so wear gloves if handling. To prevent entry, pack three-eighth inch and larger openings with copper wool or stainless steel wool (make sure it is without iron which will rust), then caulk over. Caulking prevents mice from chewing through or pulling out the material.

For sanitation, eliminate access to food, water or nesting material. Clean up food and crumbs and fix water leaks. Even simple things like storing a damp mop on the tip of its handle with its head in the air, can prevent mice from obtaining moisture or nesting material, according to Ferraro.

Avoid using mouse poisons and trap instead. "Using baits indoors should be avoided at all costs," Ferraro said. One reason is children and pets are often unintentional victims. And mice are likely to crawl into a wall to die where they can decompose for a month, shedding bacteria and attracting maggots. When cleaning where mice have been or droppings are found, avoid sweeping and vacuuming. Disease causing organisms in the droppings will spread once airborne. When cleaning, ventilate the area. Wear a respirator or quality dust mask, and spray the area with a disinfectant before cleanup. The moisture in diluted bleach or disinfectants prevents disease-causing organisms from becoming airborne and inhaled.

When trapping, pre-bait by putting out food such as peanut butter. After mice eat the pre-bait, place the same food firmly on a trap. Wear gloves, then set traps along walls where mice travel. For a snap trap, set the snapping mechanism toward the wall so a mouse is less likely to drag it away. If using glue traps, place any bait in a small container like a bottle cap. This prevents bait oils creating a 'slick' on top of the glue so mice get away. Wearing gloves, check traps twice a day. Bacteria in and around a dead mouse will multiply. Gloves help prevent contact with bacteria, lice and fleas. When disposing of a dead mouse, wear latex gloves, spray the corpse with disinfectant, double bag it and dispose in the trash. Wash and disinfect traps to prevent bacteria from spreading; then wash gloved hands before removing the gloves. Fleas and bacteria can spread from mice, even when trapped or dead.

Vole Damage

Prairie and meadow voles scar lawns by constructing surface runways (one to two inches wide) and clipping grass very close to the roots. Runways are most visible after snow melts. Small holes lead to underground runways or nesting areas. Vole damage to lawns will repair itself during spring growth. Voles are small, mouse-like rodents that exist throughout Nebraska. Their short, one inch, tails, stocky build and small eyes distinguish them from true mice.

2017 All-American Vegetable Award Winners

Pepper – 'Mad Hatter' - This interesting pepper has a very unique shape. The plant's vigor, earliness, high yields, large size and great taste all contribute to its high score among All-America Selections (AAS) judges. 'Mad Hatter' is a member of the *Capsicum baccatum* pepper species from South America. The taste has a refreshing, citrusy floral flavor that remains sweet, only occasionally expressing mild heat near the seeds. Be prepared for vigorous and robust plants that are easy to grow because they were bred for North America's many growing conditions.

Winter Squash – 'Honeybaby' is a very productive variety of winter squash producing numerous fruits on a compact plant. These shorter vines grow 2–3 feet in a semi-bush habit showing great garden vigor. The squash's short, wide fruits are slightly larger, sweet and meatier than similar comparison varieties.

Tomato – 'Chef's Choice Yellow' produces hearty beefsteak type tomatoes in a beautiful yellow color. Tomato lovers and culinary gardeners will fall for this large meaty delicacy that has a sweet, citrus-like flavor with just the right amount of acid and the perfect tomato texture. AAS judges raved about the quantity of the 10-ounce fruits that each 5-foot indeterminate vines produced. You will enjoy harvesting 30 or more fruits throughout the season from this disease-resistant (Fusarium wilt, Verticillium wilt, tomato mosiac virus and scab) plant.

Okra – 'Candle Fire' - A unique red okra with pods that are round, not ribbed, and a brighter red color than the reddish burgundy okras currently available. This high-performing AAS winner received high marks for productivity, taste, texture and tenderness as well as the ornamental value of red pods on red stems. One judge noted that 'Candle Fire' okra was quite maintenance free to grow, except for the frequent harvesting, which is a good thing!

Source: All-America Selections

2017 Tree Care Workshop - Plan to Attend!

You already know that trees are great. Landscape your home with one here, build a sweet tree house for the kiddos there. When you think about it, there isn't much trees can't do for us. What you may not know is that the number of trees in the Arbor Day State is steadily declining. Across Nebraska, for every four trees that we have removed, only one was replanted.

Develop specifically for public works employees, landscape managers, tree board volunteers, arborists, nursery and green industry professionals and landscape enthusiasts, this workshop covers emerging issues in tree and landscape care.

- March 21, Lifelong Learning Center, Norfolk

Cost is $45.00 per person, lunch included. This workshop is eligible for commercial arborist CEUs. For more information, contact Graham Herbst, (402) 444-7875, or Amy Seiler, (308) 633-1173. The Tree Care Workshops are a partnership between the Nebraska Forest Service and the Nebraska Statewide Arboretum.

Japanese Beetles

By *Nicole Stoner*, Nebraska Extension Educator - Horticulture

Photo by James Kalisch, Nebraska Extension

Insects are a part of our environment. Most insects are beneficial, not problematic. In fact, only a small percentage of all insects are considered pests, less than one percent. However, there are some pests that can be very problematic because they are invasive insects that came here from another country and they came here without their natural predators. One such insect is the Japanese beetle.

Japanese beetles came from Japan, where it is not a major pest due to the natural predators found there. This pest was first found in the United States in a New Jersey nursery in 1916 and was likely introduced in infested iris bulbs from Japan. Since this initial introduction, Japanese beetle populations have steadily expanded westward. As of January of 2015, Japanese beetle has been found in 34 states in the United States.

Why Are They a Problem? Japanese beetles are problematic insects as both larvae and adults. The larvae are one of the four most common types of white grubs found in Nebraska. As a white grub, larvae feed on the roots of turfgrass causing large brown dead spots in the turf that are easily lifted up like a rug from the floor.

As adults, Japanese beetles feed on over 300 species of plants including trees, shrubs, fruits, vegetables, field crops, weeds, and other ornamental plant species. Some of their favorite food plants are roses, lindens, and grapes amongst others.

Adult beetles feed on the foliage, flowers, and fruits of these plants. They feed on the upper surface of the leaves and cause a skeletonized pattern to the leaf where the veins of the leaf are often left behind but the rest of the leaf is chewed away. In some cases, they will consume the entire leaf. This can stress the plants, and in high populations of beetles can even kill the plant.

Identification- Adult Japanese beetles are 7/16 inch-long, metallic green beetles. The elytra, or wing coverings, are copper. These beetles can be distinguished from similar looking beetles by the six tufts of white hair along both sides of the abdomen. Larvae of Japanese beetles look like other white grubs. They are C-shaped, creamy white larvae. However, you can differentiate between the different species by looking at the pattern of hairs on the end of their abdomen. On a Japanese beetle grub, there is a V-shaped pattern in these hairs that can be seen under magnification.

What Can We Do? - Japanese beetles can be controlled through multiple methods. As larvae, they are best controlled with insecticides applied to the lawn in the months of May, June, and July. There are many different options available including products containing chlorantraniliprole, imidacloprid, or clothianidin. The chlorantraniliprole product is the least harmful to pollinators in the environment.

There is also a biological control product that contains milky spore, a bacterium that causes a disease in the larvae to kill them and not harm other organisms. However, this is not very effective at controlling the larvae and it occurs naturally so there is no need to purchase it as a pesticide.

With low populations of adults, you can hand pick the beetles off of plants and throw them into a bucket of soapy water to kill them and not harm any pollinators. Pesticides can be used on the adults in plants, however, be sure to avoid use of pesticides directly on the flowers of these plants to avoid harming pollinators. Imidacloprid and chlorantraniliprole can be used on trees and shrubs to control the beetles.

There are also traps available that are sold to control Japanese Beetle adults, however these traps often attract more beetles than they can capture and are typically not recommended for control.

Be sure to always read and follow the pesticide label before using any pesticide.