

Cooler temperatures mean rodents seeking shelter

Submitted by: David Kehler, County Extension Director/Agriculture Agent

When warmer days go away, rats and mice come out to play—inside our homes and other buildings. K-State Research and Extension wildlife specialist Charlie Lee said late fall is the time of year when home and farm owners should prepare for rodents seeking shelter in warmer places, and they should also understand the real damage these pests can do.

Issues with food loss - While food loss can occur throughout the production chain, all the way to the consumer, rodents are a main cause of food loss worldwide. Rodents both eat and contaminate crops. The losses have an economic impact. As an example, Lee said each rat on a farm will eat, spoil or damage approximately \$25 worth of grain per year.

Loss to structures - Rats and mice damage structures by burrowing into walls, insulation and under foundations, Lee said. People may not realize that damage until it's too late, as the creatures tend to come out at night. Look for chewed electrical wires, wooden structures and wall material. Rats and mice use many of these materials to create nests. Droppings will indicate the presence of the pests and when action is required to eliminate them from the home or other building.

Disease carriers - Rats and mice are responsible for at least 45 different diseases, Lee said, including some diseases harmful to humans that include the hantavirus, leptospirosis and the plague.

Cotton rats, deer mice and white-footed mice can carry hantavirus. Hantavirus is spread by breathing in dust contaminated with rodent urine or droppings; having direct contact with rodents and their urine, droppings or nest material; or even bite wounds from rodents, although they are rare.

Eating food or drinking water that's contaminated with urine from infected rodents and other animals mainly spreads leptospirosis. Human contact with soil contaminated with urine from infected animals is another method of transmission.

Identifying and taking precautions - Most rats of concern in the Midwest are the Norway rat, otherwise known as the brown rat or sewer rat, Lee said. "You can recognize them with having a blunt muzzle and small eyes," he said. "This rodent does a lot of digging and burrowing." "The females are sexually mature at 75 days of age," he added. "They have fairly large litter sizes of seven to 11. But, because of high birth mortality, they're only weaning about 20 rats per year."

House mice are typically found in areas of good shelter near or in the home itself. Each pair will produce about 50 young per year, but each litter of offspring will also begin producing young well before year's end."

Following the same steps—prevention, sanitation and reduction—are key to controlling the pests. "It starts with trying to rodent-proof the building," Lee said. "You do that by closing up places where it's obvious that they're getting in."

"The next step is sanitation, which is simply habitat alteration," he continued. "Clean up inside and out, particularly pet food and spilled grains."

"Then finally, the third step is population reduction. Many people rely on trapping, and some rely on toxicant programs."

More information is available at our office or in the K-State Research and Extension Bookstore publication, "Ag Wildlife Damage," available online