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CC55-1572 Control Rats and Mice

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Control

Rats and Mice

Rats and mice on Nebraska farms destroy millions of dollars worth of farm products each year. There are probably more than one million rats and untold numbers of mice in Nebraska. Each rat may cost 10 dollars or more each year. A rat eats 40 pounds of food yearly ($3.00); contaminates other food ($6.00); damages property ($1.00) and may distribute diseases that cause an unknown loss. In addition, they may contaminate food grain so that it cannot be marketed as human food, resulting in a price reduction of 25 per cent or more. Rats attack poultry and young livestock for flesh and blood; others simply have a lust for killing. Rats destroy property by gnawing, starting fires, burrowing under buildings, and building nests. Rats distribute filth, cause fear, and waste our time. IT PAYES TO CONTROL RATS AND MICE. Control is not difficult, but requires patience and persistence.

How To Detect Rats And Mice

GNAWING SIGNS: Look for signs of gnawing around doors, windows, cracks in floor and walls, also edges of boards in grain bins or corn cribs. Rats and mice will gnaw on any opening or rough surface such as nail holes, knot holes, and other uneven surfaces that offer gnawing edges.

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UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE
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COOPERATING
W.V. LAMBERT, DIRECTOR
DROPPINGS: Fresh rat and mouse pellets are sure signs of infestation. Look closely along walls, dark corners, behind boxes or other objects, and examine carefully open grain or feed bins.

TRACKS: Examine dry floors for tracks in dust, or scatter a thin layer of flour near walls and observe daily.

LIVE RATS: Rats move about during the night. Often they can be detected by switching on lights as they run to hiding places. Listen for activity during the night in double walls, attics and runways.

BURROWS: Look for holes and burrows under floors, concrete slabs, around foundations, and all other areas offering some protection.

SMEARS: Stained areas along walls, on beams, or around openings indicate rat runways.

When To Control Rats And Mice

Fall and winter months are the preferred months for rat and mouse control, but a satisfactory control program must be in effect the year around. They begin migrations into buildings in the fall to find a constant supply of food, and shelter. In the spring many of them move into fields and woods where they feed on fresh vegetation and other available foods. Intense control measures should start in October or November and be continued until April or May. Reproduction continues the year around, so controls must not be allowed to elapse.

Prevention Of Rat And Mouse Infestations

REMOVE FOOD: Keep garbage and waste foods in tightly covered containers until it is buried or burned. Store all foods in rodent proof containers, buildings or rooms. Line feed boxes, and lids with thin sheet metal. Keep entire premises clean. Rats and mice will not remain if no food supply is available.

REMOVE SHELTERS: In storage rooms or basements, stack all items neatly and close together on racks at least 12 inches above the floor. Stack all wood, lumber, machine parts or other materials out-of-doors on racks at least 18 inches above ground. Clean up or destroy useless piles of straw, compost, hay, manure, junk and other hiding places in the barnyard. Eliminate double walls, ceilings, and floors when possible. Neatness is essential in successful rodent prevention.
RODENT-PROOF BUILDINGS: Cover all gnawing edges with thin sheet metal or 4 mesh hardware cloth. Close all holes in walls and floors with sheet metal. Caulk all openings around pipes or wires. Equip doors with self closing devices and metal flashing on bottom and 18 inches upward on edges. Replace broken windows or cover them with hardware cloth. Close all openings around eaves or in the roof. Buildings without rodent proof foundations should be raised at least 18 inches above ground level. Pour concrete floors on concrete foundations at least 2 feet deep, wherever practical. Examine all buildings constantly for fresh signs of rodent activity, and the need for additional rodent proofing.

Controlling Rats And Mice

POISONED BAITS: Poisoned baits should be used in all rat and mouse control campaigns. Only safe baits should be used by inexperienced or non-professional persons. Anticoagulant baits such as pival and warfarin, are relatively safe poisons. Anticoagulant baits prevent blood from clotting resulting in death from external or internal bleeding. It must be taken over a period of several days to kill rats and mice. Placed in well protected bait stations there is little danger to poultry or other animals. Red squill, also a relatively safe bait is a single dose poison effective only against rats. Other animals that eat red squill will become ill and vomit, so there is little danger to pets and farm animals. Rats cannot vomit. Poisons such as arsenic, thallium, phosphorus and others are highly poisonous, therefore, should not be used except by thoroughly experienced persons. Farm rodent control should consist of intensive baiting with pival or warfarin followed with red squill if necessary.

ANTICOAGULANT DRY BAITS: Warfarin and pival are readily available premixed for immediate use, or as 0.05 percent concentrates that may be mixed with oatmeal or corn meal. If concentrates are used mix 3 ounces of the concentrate with 3 pounds of oatmeal. If larger quantities are desired, mix 1 pound of concentrate to 19 pounds of oatmeal. A mixture of corn meal and oatmeal may be used. On most Nebraska farms the oatmeal mix is preferred. Addition of 1 teaspoonful of corn oil or bacon grease to each pound of bait will make it more acceptable to rats and mice. Oil or grease should be added just before using, or bait may become rancid. Rancid baits should be removed from bait stations. Pival is preferred for baits that will be stored for some time, as it is less likely to become infested with insects. Water placed next to bait stations, if temperature is above freezing, will improve control.

ANTICOAGULANT WATER SOLUBLE BAITS: Warfarin and pival are available in water soluble forms. These are dissolved in water, then placed in chick watering devices, using pint or quart mason jars. They must be used where there is no danger of freezing, so are best adapted for use in heated buildings during the winter months.

BAIT STATIONS: Dry anticoagulant baits should be placed in protected bait stations in or near runways. Bait stations may be made from wooden boxes with entry holes bored in each end, special made stations, planks placed against walls, or commercially made stations. Bait stations are used to prevent other animals from eating baits, also to prevent scattering of baits. Bait must be available at all times as rats and mice
must feed daily from 3 to 10 days before they die. It is essential that daily inspections of bait supplies be made. After initial control is complete, the stations should be maintained but need to be checked less frequently. Stations should be placed in runways of every building, as rats and mice move from building to building frequently. The average barn, machine shed, and corn crib should have at least 3 stations each. Place bait in coffee cans or other containers inside stations.

**RED SQUILL:** Red squill will only kill rats; therefore, should be used as a supplemental poison to anticoagulants. Fortified red squill (500 to 600 mg/kg strength (read the label)) is mixed with meat and cereal according to the following formula:

- 2 oz. fortified red squill
- 2 cups oatmeal
- 1/2 pound hamburger
- 1 cup corn oil
- 8 oz. canned fish

Mix ingredients thoroughly by hand. Cut wax paper into 4 inch squares, placing one teaspoon of bait in each square twisting into a small packet. Place these packets in groups to two or three wherever signs of rats are observed. After two days pick up remaining packets and destroy them. Rats will develop bait shyness to red squill, but not to warfarin or pival.

**TRAPS:** Traps are effective when infestations remain after poisoning, or only a few rats are known to be present. The wooden base rat trap should be used with triggers enlarged with cardboard or thin metal. Place traps in runways so that rats will run over the triggers, tripping the trap. Bait mouse traps with bacon tied to the triggers or with peanut butter pressed into the bait pits on the triggers. If traps are used set several, at least six, or more, per building.

**POISON GAS:** Calcium cyanide pumped into burrows outdoors is an excellent means of control. It is safe to use in the open when careful precautions are taken. Do not use cyanide in buildings. Pump the dust form of calcium cyanide into burrows with a foot pump or garden duster. Gas released will quickly kill rats everywhere it concentrates. Be very careful to avoid breathing fumes or dust. Follow package directions very carefully.

**COMMUNITY RESPONSIBILITY:** Rodents move from one place to another frequently, so rat and mouse control is the responsibility of every one on farms or in cities. Well planned farm campaigns coupled with community action by civic agencies will reduce rat and mouse populations. All control plans should include utilization of every control method; 1. Remove food sources; 2. Remove shelters; 3. Rodent-proof buildings; 4. Kill rats with poisons, traps, or gasses.

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