

# CONTROL



LIBRARY

MAY 28 1958

NORTH DAKOTA  
COLLEGE

## RATS

AND

## MICE

### PROTECT FARM STORED GRAIN

Case  
S  
544.3  
-N9  
A8  
no. 31

Prepared by

Wayne J. Colberg, Extension Entomologist  
North Dakota Extension Service  
and

William Hickling, Assistant District Agent  
Branch of Rodent Control, North Dakota Department  
of Agriculture and Labor and U. S. Fish and Wildlife Service

**NDAC** *Extension Service, Fargo*

NORTH DAKOTA AGRICULTURAL COLLEGE

# CONTROL

---

## Rats and Mice

### RODENT POISONS

COMPOUND 1080, THALLIUM SULPHATE, ZINC PHOSPHIDE and ANTU are extremely toxic and are not recommended for general use. COMPOUND 1080 is not sold on the open market, although some pest control operators use it.

RED SQUILL is safe to use and is recommended for heavy infestations of rats. It will not control mice. Red squill is in short supply and may not always be available.

ANTI-COAGULANT BAITs include warfarin, pival, fumarin and diphacin. They are the most common types used on farms and are effective for both rats and mice. They are slow killers, needing several days feeding to do a good job. If rodents do not feed on them for 36 hours or more during a control program, results may be very poor. The baits may be bought ready-mixed or as concentrates to be mixed with grain or water.

### BAITING FOR RATS

Rats move about in search of food and water. For the average farm, 3 or 4 bait placements in larger infested buildings and 1 or 2 in smaller buildings are enough. Each placement should contain at least 1 pound of the anti-coagulant bait. Check the baits daily and refill as needed. Bait until feeding stops.

Place the bait in runways, burrows, underneath buildings or along walls inside buildings. Always provide concealment and protection for the rodents by placing the bait inside boxes or under boards placed along walls.

## BAITING FOR MICE

Mice differ from rats in that they need very little water and can survive on a dry grain diet. They feed several times a day and, if food is available, will not travel more than 10 to 20 feet from their nest site. To control mice, place small amounts of poisoned bait in several locations about 10 feet apart within a building. Water baits are especially effective when baiting farm grain storages. Adding a little confectioners sugar to cereal bait may provide a little better acceptance.

Rats and mice are expensive boarders. They eat and waste grain and contaminate it with their filth. Rodent contaminated grain is not fit for human food and must be sold at lower market prices.

The Federal Food and Drug Administration now inspects grain shipped out of state, and they sieze any grain containing one or more rodent pellets per pint sample. You can prevent contamination of "on farm" stored grain by rodents through good handling and storing practices.

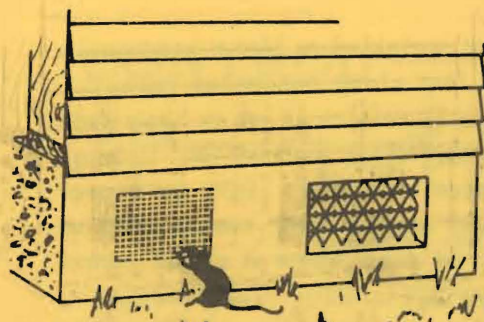
The Norway rat and the common house mouse are responsible for grain contamination in North Dakota. Mice are most important in contamination of stored grain.

Presence of rats and mice in any community or farm is evidence that sanitation is not what it should be.

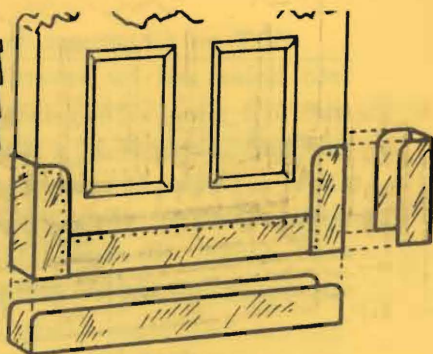
Rodent control is a 3-step, continuous process. Let-up on any one step and rats and mice will move in again.

## CLEAN UP THE FARMSTEAD

Remove trash piles, cut weeds, pile lumber off the ground, and clean up spilled grain.



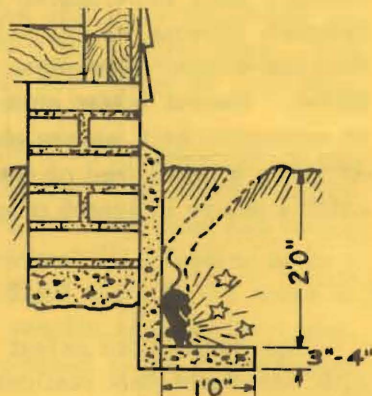
Hardware Cloth  
Around Windows



Tight Fitting  
Doors

## RODENT-PROOF BUILDINGS

Keep rodents out of buildings, and you control them more easily. Keep doors and windows tightly closed at all times. Seal small openings and cracks. Place buildings on permanent-type foundations, or raise buildings not on foundations off the ground 18 inches or more with concrete or wooden pillars.



Rat Proof Foundation

Good rodent proofing materials are cement, brick, glass, sheet metal and hardware cloth.

## BAIT THE FARM

Several good rodent poisons are on the market, but they are not too effective until food and shelter are eliminated. Proper placement of baits is also extremely important.

For quick control of mice, if danger of accidental poisoning or contamination of food grain is not likely, use fast acting poisons, such as strychnine poisoned wheat, sold commercially at 0.5 percent concentration. A teaspoonful is usually enough for each location.

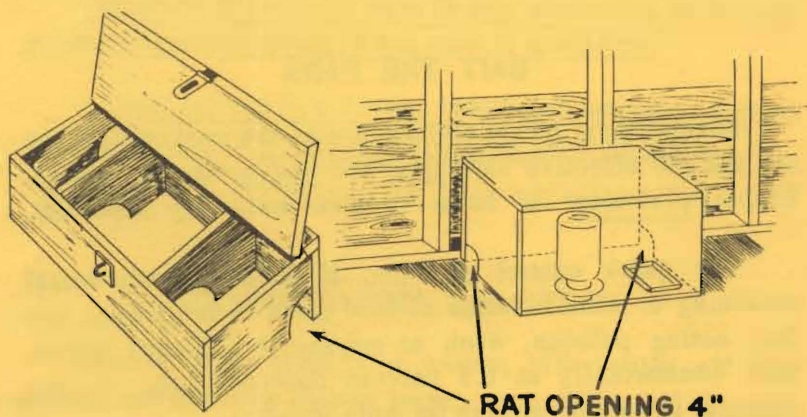
DDT as 50 percent dust sprinkled or blown generously into holes and for several feet along concealed runways will kill mice. They inhale it or pick it up on their feet and fur, licking it off when they clean themselves. It takes about 2 weeks to control mice with DDT. DDT is especially effective when applied on the floor around feed or seed sacks. It should not be used where it would permit contamination of food grains.

## TRAPPING MICE

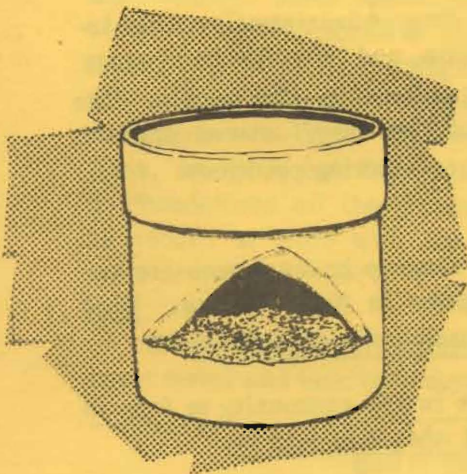
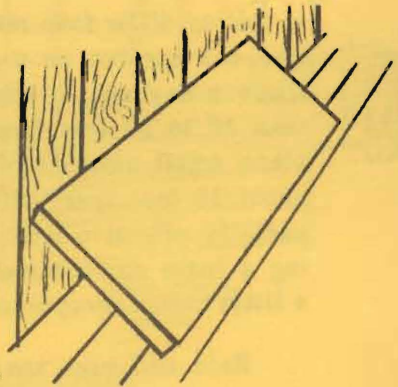
Light infestations of mice can be removed by using ordinary snap traps placed at right angles along walls and between objects, or by holes and damaged materials, so that the trigger mechanism is across the probable route of travel. Peanut butter smeared over the trigger surface is an attractive bait, as are cheese, soft candies, meats, etc. At times a small wad of cotton attached to the trigger may catch a mouse in search of nest material.

## BAIT BOXES

The easiest and safest way to poison rats and mice is with permanent bait stations, simply constructed boxes to hold the poison bait. The boxes should be large enough to hold the bait and still provide enough room for rodents to feed.



Bait stations should be made of solid material to stand up for a long time. A bait box 12" x 17" is suitable for rats. Cut small holes about 4 inches in diameter in each end of the box to allow rats and mice to enter. (See diagram) Simple bait boxes for temporary bait placement may be made with a piece of 1" x 8" lumber, 4 to 6 feet long, tacked along the wall.



A simple and effective bait container can be made by using a pint ice cream carton (see diagram) Make a horizontal cut about  $\frac{1}{3}$  the diameter of the container and push in the side just above the cut. The container can be filled with poisoned bait and still not spill any of the bait.

Set the bait stations where there is the least disturbance by human beings and farm animals. Place them along rat runways, near harboring places and sources of food. These stations may be used inside or outside buildings.