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G94-1215 Bait Stations for Controlling Rats and Mice

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Bait Stations for Controlling Rats and Mice

This NebGuide describes the design and safe use of bait stations for rat and mouse control. It includes information on correct bait station placement and bait selection.

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Toxic baits are often used to control the damage caused by Norway rats (*Rattus norvegicus*) and house mice (*Mus musculus*). Bait stations used in rodent control programs may increase both the effectiveness and safety of rodent baits (rodenticides).

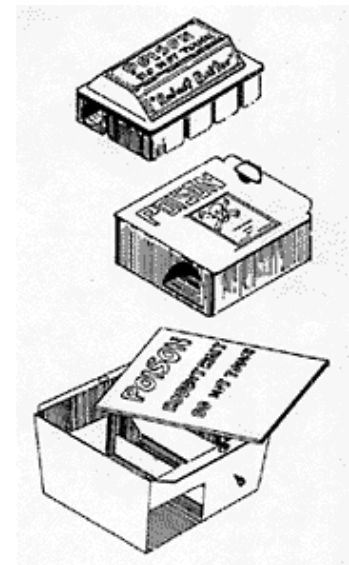
Bait stations are useful because they:

- protect bait from moisture and dust;
- provide a protected place for rodents to feed, allowing them to feel more secure;
- keep other animals (pets, livestock, desirable wildlife, etc.) and children away from toxic baits;
- allow you to place bait in some locations where it would otherwise be difficult because of weather or potential hazards to non-target animals;
- help prevent the accidental spilling of bait;
- let you inspect bait easily to see if rodents are feeding on it.

Kinds of Bait Stations

Bait stations can be designed for either rats or mice. They can contain solid and/or liquid baits.

Figure 1. Examples of commercial rodent bait stations.



You can purchase bait stations from commercial suppliers or make them yourself. Manufactured bait stations made of plastic, cardboard or metal are sold to pest control companies and to the public (Figure 1). They

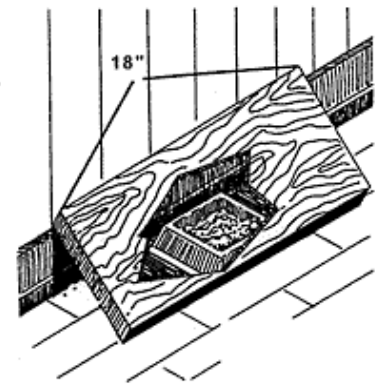
come in various shapes and sizes for rats or mice. Some farm supply and agricultural chemical supply stores have them in stock or can order them.

Bait stations can be built from scrap materials, and you can design homemade stations to fit your particular needs. Make them out of sturdy materials so they can't be easily knocked out of place or damaged. Where children, pets or livestock are present, construct the stations so that the bait is accessible only to rodents. Locks, seals or concealed latches are often used to make bait stations more tamperproof. Clearly label all bait stations with "POISON" or "RODENT BAIT -- DO NOT TOUCH," or with a similar warning.

Bait Station Design

Bait stations should be large enough to allow several rodents to feed at once. They can be as simple as a flat board nailed at an angle between the floor and wall (*Figure 2*), or a length of pipe into which bait can be placed (*Figure 3*). More elaborate stations are completely enclosed and can contain liquid as well as solid rodent baits (*Figure 4*). Hinged lids provide convenient inspection of permanent stations.

Figure 2. A flat board nailed at an angle between the wall and floor protects rodent bait from non-target animals and allows rodents to feed in a sheltered location. The board should be at least 18 inches long to keep pets and children from reaching the bait.



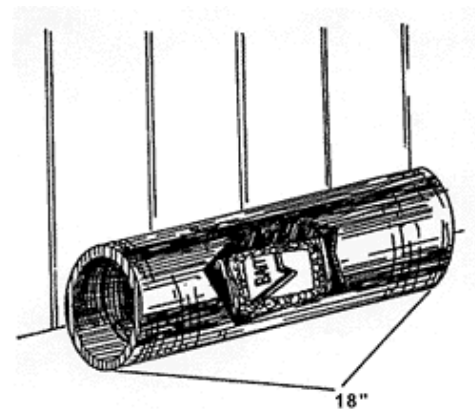
Bait stations for rats should have at least two openings about 2 1/2 inches in diameter. Cut the holes on opposite sides of the station so rats can see an alternate escape route as they enter the station.

Bait stations for mice should have entrances 1 to 1 1/2 inches in diameter. Stations for mice can be considerably smaller than those for rats. A cigar box about 10 x 6 x 2 inches high, with a hole in each end is ideal for mice.

Bait Selection

Bait stations work best when you use commonly available commercial rodent baits. Most of these baits are multiple-dose (anticoagulant) rodenticides. For these baits to be effective, rodents must feed on them over a period of days. Label instructions on such baits typically state, "Provide an uninterrupted supply of bait for at least 15 days or until all signs of feeding have stopped."

Figure 3. Rodent bait station made from a length of pipe. Pipe diameter can be 2 to 3 inches for mice; 3 1/2 to 6 inches for rats.



Multiple-dose baits are available in several forms -- loose grain, pelleted grain mixtures, paraffin-grain blocks, extruded blocks and water-soluble concentrates. Loose grain and pelleted baits are often sold packaged in small paper, cellophane or plastic packets. These "place packs" can be placed into the bait station intact, or can be opened and emptied into the box. Place packs are also useful for placing bait into wall spaces, rodent burrows and other restricted locations. Rats and mice gnaw into the packet to eat the bait. A multiple-dose bait made from canary grass seed is especially attractive to house mice and therefore gives good control in many situations.

Liquid baits also work well in places where rodents have few water sources, such as granaries. Simply mix the dry concentrate with a measured amount of water. Liquid baits that contain a small amount of sugar are

particularly attractive to rodents. Rats will often come to water stations because they need water daily unless they are feeding on very moist food. Although mice can survive without drinking water, they will use it when it is available. Because many kinds of animals drink water, protect receptacles containing liquid rodenticides from use by non-target animals. Enclose liquid bait containers within bait stations to reduce hazards to pets, livestock and wildlife.

See NebGuides *G92-1105-A, Controlling House Mice* and *G92-1106-A, Controlling Rats* for additional information on bait types and selection.

Bait Station Maintenance

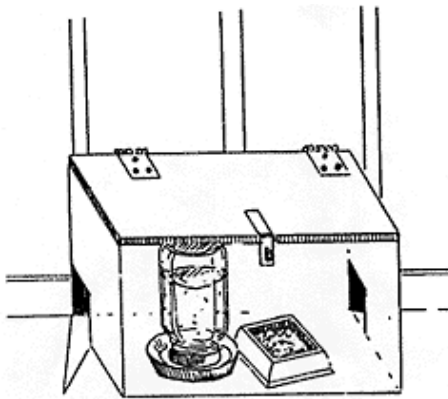


Figure 4. A home-made bait station can contain liquid as well as solid (cereal) baits.

When using multiple-dose (anticoagulant) baits, it is very important that they be fresh and of high quality. Rats and mice often reject spoiled or stale foods. Provide enough fresh bait for rodents to eat all they want. When you first put bait stations out, check them daily and add fresh bait as needed. After a short time, rodent numbers and feeding will decline, and you will need to check the stations only every two weeks. If the bait becomes moldy, musty, soiled or insect-infested, empty the box and clean it, and then refill it with fresh bait. Dispose of spoiled or uneaten bait in accordance with the label. Follow all label directions for the product you are using.

Bait Station Placement

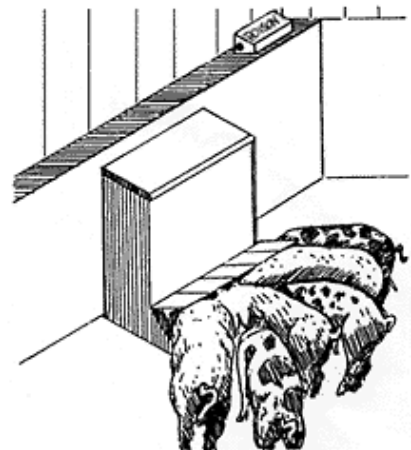
Proper placement of bait stations is just as important as using the appropriate bait. Rats and mice will not visit bait stations, regardless of their contents, if they are not conveniently located in areas where rodents are active.

Where possible, place bait between the rodents' source of shelter and their food supply. Put bait stations near rodent burrows, against walls or along travel routes used by the pests. Look for signs of activity such as droppings, gnawing, tracks and rubmarks. Rodents will usually not go out of their way to find baits. House mice seldom venture more than a few feet from their nests or food, so place bait stations no more than 10 or 12 feet apart in areas where mice are active. Rats are often suspicious of new or unfamiliar objects. It may take several days for rats to enter and feed in bait stations.

Figure 5. Rodent bait station attached to the top of a pen dividing wall in a swine containment facility. Such bait stations must be securely fastened and kept out of pigs' reach.

On farmsteads, bait station placement depends on building design and use. For example, in swine confinement buildings it may be possible to attach bait stations to wall ledges, or to the top of pen dividing walls. Bait stations can also be placed in attics, along walls, or in alleys where rodents are active (*Figure 5*).

Never place bait stations where livestock, pets or other animals can knock them over. Spilled bait may be a potential hazard, particularly to smaller animals. Rodent baits are poisonous to all animals to some degree. Pigs and dogs are especially susceptible to anticoagulants.



Where buildings are not rodent-proof, permanent bait stations can be placed inside buildings, along the outside of building foundations, or around the perimeter of the area. Maintain the bait stations regularly with fresh anticoagulant bait to keep rodent numbers at a low level. Rodents moving in from nearby areas will be controlled before they can reproduce and cause serious damage.

For more information on rodent control, see NebGuide *G94-1217, Rodent-Proof Construction: Drains and Feeding Equipment*

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A-22, Wildlife Damage Control

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