

**Alaska**  
**Limited Vertebrate Pest Control for**  
**Rodents Manual**



**Category Seventeen B**

In general, applicators who apply pesticides to property other than their own must obtain certification from the Alaska Department of Environmental Conservation (ADEC) Pesticide Program. Applicators who apply restricted-use pesticides, regardless of location, must also be certified.

Category Seventeen B, Limited Vertebrate Pest Control for Rodents, is intended for individuals who apply pesticides, whether indoors or outdoors, to manage **ONLY rodents, including mice, rats, and voles.**

The information needed to successfully complete the written core examination required for all certified pesticide applicators in Alaska includes:

1. National Pesticide Applicator Certification Core Manual;
2. Alaska Core Manual; and
3. State of Alaska Pesticide Regulations in Title 18, Chapter 90 of the Alaska Administrative Code (18 AAC 90)

The information needed to successfully obtain certification in Category Seventeen B in Alaska includes:

1. This Alaska Manual; and
2. Alaska Department of Fish and Game *Rat Control for Alaska Waterfront Facilities*, <http://seagrant.uaf.edu/lib/mab/62/mab-62.pdf>.

### **Learning Objectives for This Manual**

- Describe the appearance of a house mouse.
- Explain some ways that signs of mice are different from signs of rats.
- Describe three mechanical prevention or control methods for voles.
- Explain why rodenticides are not recommended for voles.
- Explain why shrews are not considered pests.

### **CALCULATIONS**

Precise and accurate application is important for every pesticide application. However, for this category, only basic math skills are required and will be tested. Calculations required for correct application of rodenticide are generally less complex. To ensure you can pass the calculations portion of the Category Seventeen B Exam, you will need to carefully review pages 164-165, and 190-192 in the National Core Manual. Additional resources for pesticide applicator math are available online from the Purdue Pesticide Program.

### **RATS**

Norway rats are a common pest in Alaska, and can be very destructive. Detection, prevention, and control of rats is described in the Alaska Department of Fish And Game's *Rat Control For Alaska Waterfront Facilities*.

### **MICE**

The house mouse is a common household pest. These rodents are not native to Alaska, but survive well here both inside structures and sometimes outdoors. Mice cause similar damage as rats.

The house mouse is a small gray rodent with a slightly pointed nose, small, black, protruding eyes, and large mostly hairless ears. The adult mouse can be distinguished from a young roof rat because the head and feet of the mouse are distinctly smaller in proportion to its body size. The head and body of adults are 2½ to 3½ inches long. The tail is hairless, and adds three to four inches to the animal's length.

Signs of mice are similar to signs of rats, with some small differences. The feces are smaller, only 1/8 inch to ¼ inch long, and are pointed, rather than rounded. Smudge marks left by rats are much more obvious than those from house mice. Where rodents have gnawed, the size of the tooth marks can help distinguish whether it was caused by rats or mice.

Prevention and control of mice is similar to that for rats.

### **VOLES**

There are several species of voles in Alaska; red-backed and meadow voles are most common. They mainly eat grasses and seeds. They are three to six inches long, with short ears and short tails. They can cause damage by tunneling through vegetable and flower gardens and feeding on plant roots. They may destroy tree roots or girdle the trees just above the soil line.

Voies are active both day and night throughout the year. They spend most of their time underground or in dense grass. Tunnels with one inch openings and runs through heavy grass or thatch show where voles are living. In winter they tunnel under the snow and line the tunnels with vegetation. Winding trails of packed vegetation are often seen soon after snow melts.

Mowing or trimming vegetation and eliminating thatch will reduce habitat for voles. Tree trunks can be protected by wrapping them with ¼ inch mesh hardware-cloth. The cloth should be wrapped around the lower part of the trunk, and must be buried 6 inches below the soil surface. Mousetraps are also effective for controlling voles. Excavate a small part of a tunnel, place a trap, baited with peanut butter in the tunnel, and cover the opening with boards.

Many rodenticides list voles as a target species, and can be effective against voles. However, voles are a main food source for many predators including hawks, owls, foxes, wolves, martens, weasels, and shrews. Due to the likelihood of secondary poisoning, use of rodenticides for voles is not encouraged.

### **SHREWS**

There are about ten species of shrew in Alaska. They are three to six inches long with a long pointed nose and long whiskers. They have very short legs. Shrews are active all year.

Shrews are often mistaken for mice, but they are not rodents. Shrews are actually beneficial since they eat insects. They typically stay outside of structures, unless lured in by meat. Shrews do not cause damage to plants or structures, and are not considered pests; leave the shrews alone.

**Learning Objectives for the Alaska Department Of Fish And Game *Rat Control For Alaska Waterfront Facilities***

**Regulation**

- List activities and actions related to rodents that are illegal in the state of Alaska.
- Describe the identification, biology, development, behaviors, and damage caused by rodents.
- List some human health problems caused by rodents.
- Explain how rodent populations can impact wildlife.
- Explain the purposes of inspecting an area for rodents.
- Describe the various signs of rodents that should be looked for during an inspection.
- List three types of non-natural food sources that rats rely on.
- Describe ways to improve sanitation to help reduce rodents.
- Describe the types of pathways that rats prefer.
- Describe the types of shelter areas that rats prefer.
- Describe some methods to prevent rats from coming ashore from ships or boats.
- Describe some methods to control or prevent rats from invading ships or boats.
- List methods to exclude rodents from entry into a structure.
- Describe good locations for placement of rodent traps.
- Describe three effective stations to protect rodent traps.
- List effective ways to bait traps.
- Explain how most current rodenticides kill rats and mice.
- List some of the safety features of rodenticides that are designed to help prevent accidental poisoning of children and dogs.
- State the best way to prevent non-target animals from accessing rodenticide.
- State how often bait stations should be checked.
- Describe how to place bait stations for most effective rat control, including how far apart bait stations should be placed.
- Describe some hazards associated with the use of pellet rodenticides.
- Describe a situation where liquid bait would be appropriate.
- Explain how tracking powder works to kill rodents.
- Describe some precautions that must be taken when using tracking powders.
- Explain why rodent control will not be successful if it only targets a single site.
- List some elements of an effective rodent control plan.

**Before Using Any Pesticide**

**STOP**

**All pesticides can be harmful to health  
and environment if misused.**

**Read the label  
carefully. Use only  
as directed.**