

SECTION 4
CHAPTER 17

HOUSE MICE

LEARNING OBJECTIVES

After completely studying this chapter, you should:

- Know the appearance, habits, and habitats of mice.
- Be familiar with mouse-spread diseases.
- Be able to describe monitoring procedures and tools used to inspect for mice.
- Be able to describe lethal and non-lethal methods of controlling mice.
- Know the various types of traps and baits used in mice control.

The **house mouse** (*Mus musculus*) easily adapts to life with people. It thrives in a wide range of climatic conditions in a great variety of habitats, feeding on most human food and reproducing at a remarkable rate.

House mice are found throughout the United States and in most areas of human habitation. House mice are also found living in the wild, competing with native fauna. They are common inhabitants of grassy fields and cultivated grain crops. House mice have even been captured in open tundra in Alaska, miles away from human settlements.

Technicians will find that the house mouse is the most troublesome and economically important rodent. House mice are a common problem in homes and in all types of businesses. Nearly everyone can remember times when they were irritated by mice. Mice are nuisances to rich

and poor alike. The continual drain that house mice impose on stored food and fiber, and the damage they cause to personal possessions are the most serious economic threats. House mice also have the potential to transmit diseases and parasites to people and domestic animals.

Control of house mice requires understanding mouse biology and habits, particularly the major differences between mice and rats. During the past few decades, control of rats has improved while problems with house mice have increased. Baiting programs often are more successful in controlling rats than they are in controlling mice.

LOSSES DUE TO MICE

When mice infest stored food, the greatest loss is not what mice eat, but what is thrown out because of real or suspected contamination. In six months, one pair of mice can eat about 4 pounds of food and deposit about 18,000 droppings. The amount of food contaminated by the mice is estimated to be about 10 times greater than the amount eaten.

So common are mice that the government permits a certain number of rodent hairs, and sometimes droppings, to remain in food commodities destined for human consumption (see Chapter 4). Yet food inspectors often have to condemn food products and fine manufacturers because of house mouse contamination in excess of that permitted.

Losses are not connected only with food. Family bibles or heirlooms stored in a trunk in the attic or garage that

are damaged by mice are irreplaceable, as are original paintings and manuscripts stored in museums. Mouse-riddled documents in the bottom file drawer of an office cannot generally be valued in dollars and cents, but these losses can be costly.

Electrical wiring gnawed by rodents has started many fires. Many fire-related incidents listed as “cause unknown” are probably rodent-related. House mice frequently take up residence in electrical appliances and end up chewing into the power supply. This is particularly costly when computer systems are disrupted.

MICE AS DISEASE CARRIERS

Excluding the spread of food poisoning, house mice are not as important as rats as carriers of disease and parasites. Yet their potential cannot be overlooked. House mice and their parasites are implicated in the transmission of a number of diseases.

Salmonella Food Poisoning

Bacterial food poisoning, salmonellosis, can be spread when some foods are contaminated with infected rodent feces. Mice are probably more responsible than rats for the spread of this disease.

Rickettsial pox

Rickettsia akari is the causal agent of rickettsial pox, a disease causing a rash of the chicken pox type. Rickettsial pox is transmitted from mouse to mouse, then to people by the bite of the house mouse mite.

Meningitis

Lymphocytic choriomeningitis is a virus infection of house mice that may be transmitted to people (mainly to children) through contaminated food or dust.

Leptospirosis (Weil’s Disease)

The mouse can be a major carrier of Leptospirosis (Weil’s disease), although human cases are more commonly caused by rats.

Rat-Bite Fever, Ray Fungus, and Ringworm

Rat-bite fever can be transmitted by house mice. So can ray fungus, *Actinomyces muris*. Certain tapeworms are spread in house-mouse droppings, and ringworm, a skin fungus disease, can be carried to humans by mice or contracted indirectly from mice through cats. Tularemia has also been linked to house mice.

Dermatitis

Dermatitis caused by the bites of mites has been associated with house mouse infestations. The uncomfortable

skin irritation and itching can affect children and adults. Mites may spread through all of a mouseinfested house or apartment during particular times of the year, and the dermatitis is frequently blamed on other causes (heat rash, allergies, fleas, and the like).

APPEARANCE

The house mouse is a delicate, agile little rodent. Adult weights vary from region to region and may be linked to the suitability of habitat, but they usually range from 1/2 to 1 ounce. Adult house mice vary in color from light brown to dark gray but most often are a dusky gray or medium brown over most of their bodies, except the belly, which may be a slightly lighter shade of their general color but never white.



Figure 17.1. House mouse, *Mus musculus*.

The mouse has moderately large ears for its body size. The tail is nearly hairless and about as long as the body and head combined (2 1/2 to 4 inches). The feet are small in proportion to its body. The eyes are also relatively small (see Rodent Chart, page 152).

Our native deer (whitefooted) mice (*Peromyscus* spp.), which often invade buildings adjacent to fields and woodlands, are about the same size as or slightly larger than house mice. Deer mice have a distinct, bicolored tail; the upper portion is brown or gray and the underside is distinctly white, with a welldefined line where the two colors meet.

Meadow mice or voles (*Microtus* spp.) sometimes invade homes. They are less agile, have larger, chunky bodies, and weigh at least twice as much as house mice. They also have much shorter tails and small ears and eyes.

HABITS OF HOUSE MICE

Life Cycle

Under optimum conditions, house mice breed year round. Outdoors, house mice may tend toward seasonal breeding, peaking in the spring and fall. Environmental conditions, such as the availability and quality of food,

can influence frequency of pregnancies, litter sizes, and survival. Under ideal conditions, females may produce as many as ten litters (about 50 young) in a year. At very high densities, however, reproduction may nearly cease despite the presence of excess food and cover.

Newborn mice are quite undeveloped, weigh between 0.02 and 0.03 ounce and are nearly hairless. Eyes and ears are closed, but by the end of two weeks, the body is covered with hair and the eyes and ears are open. At about three weeks, the young begin short trips away from the nest and begin taking solid food.

Social Behavior

Though mice are active primarily at night, some day activity occurs. Movements of house mice are largely determined by temperature, food, and hiding places. Home ranges of mice tend to be smallest where living conditions are good.

Mice tend to travel over their entire territory daily, investigating each change or new object that may be placed there. They are very aggressive. Unlike rats, they show no fear of new objects. They dart from place to place, covering the same route over and over again. This behavior can be used to advantage in control programs. Disturbing the environment at the beginning of a control program by moving boxes, shelves, pallets, and other objects can improve the effectiveness of traps, glue boards, and bait. Mice will investigate the changed territory thoroughly.

Senses of Mice

Like rats, mice have relatively poor vision and are color-blind. They rely heavily on smell, taste, touch and hearing. Mice use their keen sense of smell to locate food items and to recognize other individuals, especially those of the opposite sex. Taste perception in mice is good also. Mice use their acute hearing to detect and escape danger.

An important sensory factor with mice is touch. Like rats, mice use long, sensitive whiskers near the nose and the guard hairs on the body as tactile sensors to enable them to travel in the dark, pressing against walls and boxes, and scurrying through burrows.

Mice also have an excellent sense of balance. A mouse's ability to quickly carry out actions or movements is governed by a constant practice of sequences of muscular movements—sometimes referred to as the kinesthetic sense. The kinesthetic sense is a subconscious recording of a series of movements necessary to go from point A to point B. This activity occurs from stimulation of sensory nerve endings in muscles, tendons, and joints and allows mice to quickly escape danger.

Curiosity

Mice do not fear new objects as rats do. As mentioned earlier, they quickly detect new objects in their territory and investigate them. They will immediately enter bait stations and sample a new food (although they may only nibble on a small amount). They will also investigate

traps and glue boards. Control programs against mice often have success early—just the opposite of rat programs.

Physical Abilities

It is difficult to mouse-proof a building or control mice without understanding their physical capabilities:

- For their size, they are excellent jumpers, with some of the more agile individuals jumping 12 inches (30.5 cm) high from the floor onto an elevated flat surface.
- They can jump against a wall or flat vertical surface and use it as a springboard to gain additional height.
- They can run up almost any vertical surface—from wood and brick walls to metal girders, pipes, weathered sheet metal, wire mesh, and cables, without much difficulty if the surface is rough.
- They can run horizontally along insulated electrical wires, small ropes, and the like, with ease.
- They can squeeze through openings slightly more than $\frac{1}{4}$ inch (6 mm) in diameter.
- They can easily travel for some distance hanging upside-down from $\frac{1}{4}$ -inch (6 mm) hardware mesh.
- They are capable swimmers, although they generally do not take to water as well as rats do and tend not to dive below the surface.
- They can walk or run along ledges too narrow for rats.
- They can jump from a height of 8 feet (2.5 meters) to the floor.
- They can survive at a constant 24 degrees F (30 degrees C) temperature for 10 generations.
- They have been reported 1,800 feet below the ground in a coal mine.
- They are quick to explore any physical change in their environment.

Food and Water

House mice prefer cereals more than other items, though they will feed on a wide variety of foods. Mice sometimes search for foods high in fat and protein, such as lard, butter, nuts, bacon, and meat. Sweets, including chocolate, are taken at times. Mice get much of their water from moisture in their food, but they will drink if water is readily available.

Mice are nibblers, feeding 20 or more times during evening rounds. Mice have two main feeding periods, at dusk and just before dawn. In any territory, there will be one or two feeding sites, dark and protected, where mice will eat more than at other places. Mice tend to hold grain kernels, such as oats or wheat, nibbling on them like people eating corn on the cob. They often drop portions of the kernels as they get smaller.

Range

Mice are territorial and seldom travel more than 30 feet from their nest. Their range is much smaller than the rat's range of 100 to 150 feet. When food is nearby, mice may restrict their activity to a few feet. Males average slightly larger ranges than females.

Nests

House mice may nest in any dark, sheltered location. Nests are constructed of fibrous, shredded materials such as paper, cloth, burlap, insulation, or cotton and generally look like a loosely woven ball. They are approximately 4 inches in diameter.

Outdoors, house mice sometimes dig and nest in small burrows.

The small range of mice, the way they feed, and their food preferences are the characteristics that set house mice apart from rats. Keep these in mind when controlling mice. Many failures in mouse control can be blamed on applicators using rat control techniques.

INSPECTION

Sounds

Sounds are common at night where large numbers of mice are present.

- Listen for squeaks, scrambling, and sounds of gnawing.

Droppings

A house mouse produces about 70 droppings per day. Fresh droppings are not usually as soft as rat droppings and in a few days become quite hard. Mouse droppings are frequently the first evidence that mice are infesting. Large cockroaches, bats, and other species of mice such as deer mice (*Peromyscus* spp.) and meadow mice (*Microtus* spp.), may produce droppings similar to those of house mice.

- Look along runways, by food, near shelters, and in other places mice may frequent.

Urine

House mice occasionally make small mounds known as "urinating pillars." These consist of a combination of grease, urine, and dirt and may become quite conspicuous.

- Look for many small drops of urine.
- Use a blacklight. Urine stains will fluoresce under ultraviolet light.

Grease Marks

Like rats, mice produce greasy smears where dirt and oil from their fur mark pipes and beams. House mouse spots are not as easy to detect.

- Expect markings to cover a smaller area than those made by rats.

Runways

Most house mouse runways are indistinct trails free of dust but not readily detectable.

Tracks

- Look for footprints or tail marks on dusty surfaces or on mud.
- Use a non-toxic tracking dust to help determine the presence of house mice within buildings (see Chapter 16, Rats).

Gnawing Damage

Recently created gnawings on wood are light colored; they turn darker with age.

- Look for enlarged cracks beneath doors.
- Look for small tooth marks. Such evidence frequently helps to distinguish between mice and rats.
- Look for wood chips with a consistency like those of coarse sawdust around baseboards, doors, basement windows and frames, and kitchen cabinets.

Visual Sightings

Mice are often active in daylight. This may not indicate a high population, as it does with rats.

- Use a powerful flashlight or spotlight at night in warehouses and food plants to confirm house mouse presence.

Nest Sites

- Look in garages, attics, basements, closets, and other storage places.
- Be alert to finely shredded paper or other fibrous materials. These are common nestbuilding materials.

Pet Excitement

- Follow up when cats and dogs paw excitedly at a kitchen cabinet door, the floor at the base of a refrigerator, or at the base of a wall, especially if mice have invaded the premises only recently.

Mouse Odors

- Smell for the characteristic musky odor produced by mice. It can easily be differentiated from that of rats.

Estimating Numbers of Mice

Estimates are more difficult to get than for rats. The number of mice observed or food consumed is not highly reliable as a census technique with house mice. Unlike rats (which may travel widely within a building leaving tracks on many patches of dust), house mice do not range widely.

- Read natural signs such as droppings, urine stains, tracks, and damage.
- Make nontoxic tracking patches of talc at 20- to 30-foot intervals (5 to 10 meters) throughout a building. The more tracks seen in each patch, and the more patches showing tracks, the larger the population. The percentage of patches showing tracks will reflect the extent of the local infestation.
- Tracking patches are also an excellent means to evaluate a control operation. Compare the number of tracks or patches with mouse tracks before and after a control program.

CONTROL AND MANAGEMENT

Control of house mice is a three-part process:

- Sanitation.
- Mouse-proofing.
- Population reduction with traps or toxicants.

The first two are useful preventive measures. When a mouse population already exists, some kind of lethal control is necessary. Otherwise, the reproductive capability of the mice and their remarkable ability to find food in almost any habitat will keep their populations up or increase them.

House mouse control is different from rat control. Applicators who do not take these differences into account will have control failures.

- Sealing mice out of a building is difficult because mice are smaller.
- Range is small. Identify each infested site to target control procedures.
- Mice often can produce offspring faster than control methods can work.

Nevertheless, many of the techniques to control and manage rats also apply to mice. In the sections below, the differences in procedures for rats and mice are emphasized.

Sanitation

Good sanitation makes it easier to detect signs of mouse infestation. It also increases the effectiveness of baits and traps by reducing competing food. However, the best sanitation will not eliminate house mice. They require very little space and small amounts of food to flourish.

- Store bulk foods in mouse-proof containers or rooms. In warehouses, restaurants, and food plants stack packaged foods in orderly rows on pallets so

that they can be inspected easily. A family of mice can happily live in a pallet of food without ever having to leave the immediate area.

- Keep stored materials away from walls and off of the floor. A 12- to 18-inch yellow or white painted band next to the wall in commercial storage areas permits easier detection of mouse droppings. This band and the areas around pallets should be swept often so that new droppings can be detected quickly.

Mouse-proofing

It isn't easy to completely mouse-proof a building because mice are reported to be able to squeeze through an opening as little as $\frac{1}{4}$ inch in diameter.

- Seal large holes to limit the movement of mice into and through a building.
- Plug holes in foundation walls with steel wool or copper mesh.
- Caulk and fit doors and windows tightly.
- Seal holes around pipes, utility lines, vents, etc., to make it difficult for mice to move in and out of wall and ceiling voids. This confines mice to a smaller area and may make snap traps and glue boards more effective.

Traps

Snap Traps. If used correctly, snap traps are very effective in controlling mice. They must be set in the right places, in high numbers, and in the right position, or mice will miss them entirely. Here are some factors to keep in mind when trapping mice:

- Remember that the territory of mice rarely extends farther than 30 feet from the nest; more often about 10 feet. If mice are sighted throughout a building, it means that there are numerous discrete locations where you will have to set traps. Place snap traps not only wherever you see obvious signs of mice, but look for good trap locations in a three-dimensional sphere about 10 feet in diameter around those signs.
- Mice can be living above their main food supply in suspended ceilings, attics, inside vertical pipe runs, and on top of walk-in coolers. Or they can be below, in floor voids, crawl spaces, or under coolers and/or processing equipment.
- The best sites are those with large numbers of droppings—that means the mice are spending a lot of time there. Other good sites are along walls, behind objects, and in dark corners, particularly where runways narrow, funneling the mice into a limited area.
- Good mouse baits increase a trap's effectiveness. Peanut butter, bacon, cereal, and nuts are traditional, but one of the best baits is a cotton ball, which the female mice like to use for nest material. It must be tied securely to the trigger. Food baits must be fresh to be effective.

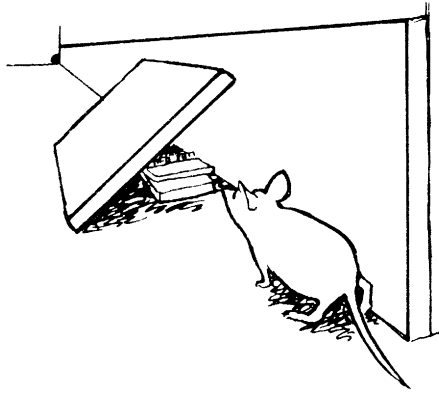


Figure 17.2. Place snap traps along walls and cover them with a board. This will force rodents to walk over the trap.

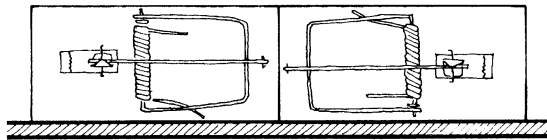


Figure 17.3. For greater effectiveness, place traps in pairs along walls to prevent rodents from jumping over a trap to avoid being caught.

- Probably the biggest mistake made in mouse trapping is not using enough traps. Use enough to make the trapping campaign short and effective.

Multiple-catch Traps. Multiple-catch mousetraps catch up to 15 mice without requiring resetting. Some brands are called “wind-up” traps; the wind-up mechanism kicks mice into the trap. Others use a treadle door. Live mice must be humanely killed.

Mice like to investigate new things. They enter the small entrance hole without hesitation. Odor plays a role too. Traps that smell “mousy” catch more mice. Place a small dab of peanut butter inside the tunnel entrance to improve the catch.

- Check traps frequently. Mice are captured alive but may die in a day or two. Some traps have a clear plastic end plate or lid so you can see if any have been captured.
- Place the traps directly against a wall or object with the opening parallel to the runway, or point the tunnel hole towards the wall, leaving 1 or 2 inches of space between the trap and the wall.
- If mice are active, place many traps 6 to 10 feet apart. For maintenance trapping, place the traps in high-risk areas and also at potential mouse entry points such as loading docks, near utility lines, and at doorways.

Glue Boards. Glue boards are very effective against mice. As with traps, placement is the key. Locations that are good trap sites are good sites for glue boards.

- Do not put glue boards directly above food products or in food preparation areas.



Figure 17.4. These multiple-catch traps will catch up to 15 mice and do not have to be reset each time one is caught.

- Set glue boards lengthwise and flush against a wall, box, or other object that edges a runway.
- Move objects around; create new, narrow runways 6 inches wide to increase the effectiveness of glue boards.
- Put peanut butter or a cotton ball in the center of the board.
- Place the glue boards 5 to 10 feet apart in infested areas; closer if the population is large.
- If no mice are captured in three days, move the boards to new locations.
- If a trapped mouse is alive, kill it before disposal. Replace the boards if they fill up with insects.

Rodenticides

Food Baits. Observe the same safety guidelines for mouse baits as discussed in the section on rat baits. Protect children, pets, wildlife, and domestic animals by putting the bait in inaccessible locations or inside tamperproof bait boxes.

- Apply many small bait placements rather than a few large placements.
- Use baits labeled for mouse control.
- Place the baits in favorite feeding and resting sites, as revealed by large numbers of droppings.
- Place the baits between hiding places and food, up against a wall or other object to intercept the mice.
- Bait in three dimensions (see earlier discussion on trapping).
- Make bait placements 10 feet apart or closer in infested areas.
- If bait is refused, try switching to a different type and replacing the baits often.
- Use small bait stations—they are more attractive to mice than the larger rat-type stations.

- Practice strict sanitation so that other food is not out competing the baits.
- Place secure, tamper-proof bait boxes in safe locations near doors in late summer to intercept mice entering from the wild.

Liquid Baits. Mice get most of their water from their food. They also drink from a water container. Liquid baits that are labeled for mouse control can be effective in sites that do not have a ready supply of water. The same water bait dispensers used for rats can be used for mice. As with food baits and traps, many water stations will be necessary to put the bait into the territory of all mice infesting a building.

Tracking Powders. Tracking powders are especially effective against mice. Mice groom themselves more than rats, and they investigate enclosed areas that can be dusted with tracking powder.

- Apply inside infested dry wall voids.
- Dust tracking powder into voids in heavily infested apartment or office buildings.
- Place tracking powder in a bait station, a PVC tube, a cardboard tube, or any small, dark shelter that a mouse could enter. Mice will explore such a shelter. Apply the tracking powder in a layer less than $\frac{1}{16}$ inch deep.
- Do not allow tracking powder to drift into non-target areas.

SUMMARY

The house mouse is the most successful rodent in adapting to live with people. It is found almost anywhere people are, feeding on human food, sheltering in human structures, and reproducing at a remarkable rate. It is the most troublesome and economically important vertebrate pest, contaminating untold millions of dollars worth of food, damaging possessions, and causing electrical fires with its constant gnawing.

Many control failures against house mice are due to the applicator's lack of understanding of mouse biology and habits, particularly the major differences between mice and rats. Mice have a remarkable reproductive ability. A mated pair can produce 50 offspring in one year. They also have a foraging range much smaller than a rat's, usually only 10 to 30 feet. Baits, traps, glue boards, and the like must be placed close to the nest to be effective. Thus, good inspections are critical.

On the plus side, mice are curious and investigate new objects in their territory, so control measures can work fast when done correctly. Control of house mice is best when it is a three-part process: sanitation, mouse-proofing, and population reduction with traps and toxicants.

SECTION 4 CHAPTER 17

Review Questions

Chapter 17: Mice

Write the answers to the following questions and then check your answers with those in Appendix A in the back of this manual.

- In 6 months, one pair of house mice can eat about 4 pounds of food and deposit about ____ droppings.
 - 400
 - 1,800
 - 4,000
 - 18,000
- When mice infest food, the greatest loss is not what mice eat but what is thrown out because of contamination.
 - True
 - False
- Government regulations currently exclude any contamination of food commodities by rodent hairs.
 - True
 - False
- Mice are more likely to cause ____ than rats.
 - Leptospirosis
 - Trichinosis
 - Rat-bite fever
 - Salmonella* food poisoning
 - Plague

5. Mice, unlike rats, may also be responsible for the spread of:
- Leptospirosis.
 - Meningitis.
 - Trichinosis.
 - Rickettsial pox.
 - B & D
- 6-9. Match the following to the appropriate description:
- Dermatitis
 - Meningitis
 - Rickettsial pox
 - Ringworm
- _____ 6. A rash caused by the bites of house mouse mites.
- _____ 7. A skin irritation caused by the bites of house mouse mites.
- _____ 8. A virus infection of house mice; transmitted to people through contaminated food or dust.
- _____ 9. A fungus, contracted directly or indirectly (through cats), from mice by humans.
10. Which is NOT true of mice's physical abilities?
- Can jump 12 inches from the floor onto an elevated flat surface.
 - Are better swimmers than rats, diving below the surface.
 - Can travel upside-down hanging off a 1/4-inch hardware mesh.
 - Can jump from a height of 8 feet to the floor.
 - Can run up almost any vertical surface.
11. Voles (meadow mice) have shorter tails and smaller ears than house mice.
- True
 - False
12. Mice, unlike rats, are shy of changes in their territory.
- True
 - False
13. Which of the following is NOT true about mice?
- Outdoors, mice tend to breed all year long.
 - Mice are mostly active at night.
 - Females can produce up to 50 young per year.
 - Mice seldom travel 30 feet from their nest.
 - Mice are nibblers.
14. Mouse control is difficult because:
- They can squeeze through openings slightly larger than 1/4 inch.
 - There can be many nests in an infested building.
 - They have a very high reproductive potential.
 - All of the above
15. Which is NOT true of the food and water habits of mice?
- Feed at dusk and just before dawn
 - May feed 20 or more times during an evening
 - Prefer cereals over meats
 - Must drink water every day
16. The signs of mice infestations can be differentiated from rat infestations by the:
- Size of gnawings.
 - Odor.
 - Urination pillars.
 - A & C
 - All of the above
17. The best way to estimate the number of mice infesting is by:
- The amount of food consumed.
 - Nontoxic tracking patches.
 - The number of mice observed.
 - A & B
 - All of the above
18. Mouse-proofing is all that is needed to control an existing mouse population.
- True
 - False
19. Glue boards trap mice better than rats.
- True
 - False
20. Which is NOT true about multiple-catch traps?
- Can catch up to 15 mice without requiring resetting.
 - Mice often enter entrance holes without hesitation.
 - Mice are killed instantly.
 - Mousy-smelling traps often catch more mice.
 - B & D

21. Tying a cotton ball to a trigger trap will attract mice.
- A. True
 - B. False
22. The key difference between baiting mice and baiting rats is:
- A. You need to apply many small bait placements.
 - B. You must use water baits.
 - C. You need to wait weeks for mice to stop avoiding the “new” bait.
 - D. Baits are not effective against mice.
23. Tracking powders should be applied in a layer less than $\frac{1}{16}$ inch deep for control of mice.
- A. True
 - B. False
24. Tracking powders are more effective against rats than mice.
- A. True
 - B. False
25. Mousetraps should be placed:
- A. About 6 inches away from a wall.
 - B. Every 30 feet.
 - C. Along walls, behind objects, and in dark corners.
 - D. In the center.
26. Which would be an effective placement of glue boards?
- A. Every 5 to 10 feet in infested areas
 - B. Lengthwise flush against the wall; along narrow runways
 - C. Every 5 feet in food preparation areas
 - D. In areas free of mouse droppings
 - E. A & B
27. Why should you use food baits in three dimensions when controlling mice?
28. List some sanitation methods for controlling mouse populations.
29. List some ways to mouse-proof a building.

