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COMMON BROWN OR NORWAY RAT

Cooperative Extension Work in Agriculture and Home Economics
University of Nebraska College of Agriculture, and the United States
Department of Agriculture cooperating. W. H. Brokaw, Director, Lincoln.
CONTROLLING THE COMMON BROWN OR NORWAY RAT WITH ANTU

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The rat is still our greatest enemy in the animal world. Consequently, the development of ANTU (alpha-naphthyl thiourea) lends new significance to intensive control programs and makes it possible to expect a general reduction of the rat problem.

Extensive control programs supervised by the U. S. Public Health Service and the U. S. Fish and Wildlife Service have indicated that control of rats depends not only upon the use of an efficient poison, but also on a systematic poisoning program and procedure. Rats migrate from farm to farm and within a community and soon repopulate a habitable place if colonies are missed and follow-up programs are not put into force. Some of the control program principles that should be emphasized in the use of any rat poison are as follows:

a. Poisoning operations should not be attempted on a small scale. It is not practical to use poison in a single house or building which is surrounded by a rat-infested area, unless the house or building is well rat-proofed, for it will soon be re-infested.

b. In community programs in urban areas, no less than an entire block should be treated at one time. In a large-scale poisoning program, involving large parts or all of a town or city, preparations must be made for a well-planned attack.

c. In rural areas a whole farm should be baited at one time or at least those parts of it which afford food and harborage for rats.

d. The rat control program should not end with a special rat campaign, but should be designed to kill the last rat with all means possible. This should also include the elimination of shelter and food to delay or prevent re-infestation.

e. For best kills, prebait with unpoisoned bait materials to get the rats accustomed to feeding at the baiting station and on the foods to be poisoned.
ANTU is specific for the control of the brown rat (Rattus Norvegicus). It has a toxic effect upon other rats and mice, but only in a higher dosage range. Other poisons may give as good results, but are generally more toxic to man and other animals. ANTU and fortified red squill are the only rat poisons recommended for public use and with precautions. After a sub-lethal dose of ANTU rats build up a tolerance for it that lasts for 30 days and a distaste that may last several months. It is well to substitute other poisons as fortified red squill in follow-up programs, if they are necessary within 6 months. Best results are obtained when ANTU is used only once a year. ANTU is a single-shot poison, it is not an accumulative poison.

The best methods of use are as follows:

1. Mixed with food baits. Any palatable food attractive to rats may be used. The bait and the poison should be mixed as evenly as possible and in the ratio of 3 parts of pure ANTU to 100 parts of food by weight.

   3 ounces of pure ANTU to 6-1/4 lb. bait.
   ½ ounce of pure ANTU to 1 lb. bait.
   3 ounces of 20% ANTU to 1-1/4 lb. bait.

Food baits commonly used are hamburger, canned dog food, eggs, sausage, fish, liver, bacon, ground cereals, peanut butter, cheese and mashed sweet potatoes.

2. Dusted on food baits. Small piles of attractive foods may be placed at certain locations for several nights for pre-baiting. Then the usual piles are placed and pure ANTU is dusted over them and the surrounding floor until a thin film has been sprinkled on the food and about 6 inches of the surrounding location. Freshly ground yellow corn, diced apples, sweet potatoes, tomatoes, cantaloupes, watermelons, ground meat, white and yolk of eggs, fish or chicken heads, and fresh ears of sweet corn may be used for this type of baiting.

3. As a dust. Spread a 50 per cent mixture of ANTU and flour (or pyrophyllite) over ground in areas which rats frequent, especially along runways and near openings, and
on pipes used as trailways. Pump ANTU powder (pure or 50% mixture) into openings of rat burrows with foot or hand duster until floor of burrow is well coated. A mixture of 50 per cent ANTU, 2 per cent DDT, and 48 per cent pyrophyllite will tend to control the rats and the fleas on them at the same time.

4. With water. Dust ANTU on water in shallow cups or dishes until it forms a thin film on surface, or put 2 parts of ANTU with 100 parts of water (by weight) into a closed container and shake well. Pour this mixture in shallow dishes. This mixture will need to be stirred or shaken up every few hours as the powder tends to settle.

For the best results use several of the above methods at the same time and distribute the bait liberally. The U. S. Public Health Service states that it is a good practice to make liberal use of poisoned water where food is available at all times.

Where To Use Poisoned Baits

1. Put poisoned baits near places rats or signs of their feeding activities have been noted. These may be at garbage pails and food storage places, or in sheltered spots where rats can eat without being disturbed.


3. Near burrow entrances and haborage sites.

4. Along runways.

Poisoned baits, particularly poisoned water, should be distributed late in the afternoon if possible.

CAUTION. ANTU is poisonous to dogs, cats, poultry and to other animals. Warn all individuals within areas to be poisoned to keep children away from baits and to keep dogs and cats confined or under leash. When poisoning operations are over, take up all uneaten baits and dispose of them in some place inaccessible to irresponsible persons or animals to which it might be toxic.

Rat poisons on the market vary in the amount of toxicant present, therefore, when prepared rat poisons are purchased, follow the directions given on the container.