Poisoning Rats on Dumps

Purdue University Cooperative Extension Service
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Rats can be destroyed on dumps most efficiently with poisoned baits. Three or four thorough baitings a year should keep infestations under control. An application in late fall before the advent of cold weather is most important to reduce the migration of rats to surrounding properties. Treatments by reliable pest control firms are advantageous because the work is done regularly when under contract agreement.

Hazards of Poison
The presence of children, scavengers, pets, and birds may present a hazard when poisons are carelessly and improperly applied. However, poisoned baiting is relatively safe when baits are placed under cover and warning signs are used. Signs should be placed at the dump entrance and at 200 foot intervals around the edge. If houses are within 500 yards of the dump, residents should be warned to keep children and pets at home during the poisoning operation. Insert notices in local papers preceding the date set for treatment to warn residents of the danger at the dump.

Red Squill is probably the least harmful of all the rodenticides to human beings and domestic animals. Most animals other than rats dislike squill-mixed baits, but if they eat the bait it will be vomited without serious effect. Add to food baits 10% by weight of red squill powder or extract testing 500 mg/Kg - LD50.

Zinc Phosphide has a taste and odor attractive to rats but disliked by most other animals. However, it is highly toxic to all animals and care must be exercised in its use. Its toxicity decreases slowly upon exposure to the open air. Add 1%, by weight, to food baits.

Anticoagulant poisons kill rats and mice by internal bleeding. Several small feedings over a period of 3 to 5 days cause death. Baits containing anticoagulant poisons should be placed under shelter of boxes or other cover. Add 5% of .5% anticoagulant concentrate to food baits.

Poisoned Bait Preparation
Ground meat or fish, poultry mashes or canned pet foods make good dump baits. As an extender and to lend taste, add 10 to 25% rolled oats or bread crumbs to meat or fish foods. Add 10 to 15% warmed kitchen grease (free of burned taste) or cooking oil to mixtures. Some good formulations are: ground fish 90 lbs., rolled oats or corn meal 10 lbs., zinc phosphide 1 lbs., or 10 lbs. red squill); or poultry mash 85 lbs., kitchen grease 15 lbs., zinc phosphide 1 lb. (or red squill 10 lbs.). Adjust the amount of food ingredients to compensate for the weight of the poison.

A good anticoagulant bait can be made with 60% corn meal, 25% rolled oats, 5% vegetable oil, 5% sugar, and 5% of .5% anticoagulant concentrate.
Estimating Quantity of Bait
If properly placed, 50 to 100 pounds of prepared bait will treat a town or city dump. A rough estimate can be made by figuring one pound of bait for every linear yard of dump face.

Method of Treatment
Dumps can be treated most economically by exposing a bait containing a single-dose poison such as red squill or zinc phosphide. Make the treatment when dumping is at a minimum or when good weather is forecast for about 2 days.

Use a long-handled spoon to place (not throw) the baits near burrows, beside trails, under boxes and the like where rats will easily find them. Place baits under protective cover of rubbish, or make ledges under which the baits will be protected from rain or snow.

Place baits liberally at the top edge of the embankment on the level surface and for a distance of 10 to 20 feet on the sloping face. Rats travel to that area because food is usually most abundant there. Walk along the bottom face and place baits along runways. Use small baits in many places. In dry weather rats may be burrowing in the ground in the outer perimeter of the dump so examine and treat this area as needed.

Bait Stations
Set bait stations in undisturbed places near well-traveled runways. Old tires, car bodies, boxes, and cans will serve as bait stations. If anticoagulant bait is used, keep it exposed constantly for at least 2 weeks.

Rat Control with Gas
Calcium cyanide releases deadly hydrocyanic acid gas when it comes in contact with air. Observe the precautions given on the label. Apply it only to burrows where the gas will be confined, when the temperature is above 60°F. It is impractical to use the material on an active dump face due to the loose nature of the fill. The dust can best be applied with a foot-pump duster, but a garden duster will do.

How to Abandon a Dump
When material is no longer brought to a dump, rats will travel to other areas. To prevent their migration, treat the area prior to and after dumping ceases. Within a week after the dump is closed, the active face should be covered with dirt.