U. S. DEPARTMENT OF AGRICULTURE
Office of the Secretary
Press Service

PRESS MATERIAL FOR USE IN RAT CAMPAIGNS.

TO THE EDITOR: A selection of the following short news items, prepared in the Biological Survey, United States Department of Agriculture, may be used from day to day during the progress of the local campaign for the extermination of rats to aid in arousing public interest in the work. Electrotypes of illustrations may be borrowed from the Biological Survey by cooperating agencies, when available.

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$200,000,000 DAMAGE BY RATS ANNUALLY.

In the United States rats destroy approximately $200,000,000 worth of property each year. This is on the basis that each rat will destroy $2 worth of property annually, and that there are as many rats as people. That this basis is entirely conservative will be realized by considering the number of rats on the average farm in comparison with the number of people on the farm. In an anti-rat campaign conducted by the Biological Survey of the United States Department of Agriculture in Denton County, Texas, where the human population was 35,000, more than 250,000 rats were killed in six weeks.

The magnitude of the damage caused by rats may be more clearly realized from the fact that these pests destroy every year as much as 200,000 people can produce, and that this tremendous loss more than equals the total value of all crops in the State of Louisiana.

RATS DESTRUCTIVE TO CORN IN STORAGE.

Rats feed upon all kinds of animal and vegetable matter; they are equally at home in the open field, in river banks, and in buildings of all descriptions, destroying agricultural crops when newly planted, while growing, during the harvest season, in storage, during transit, in the mill, in the shop, and in the home. They ruin by pollution many times as much as they eat.

Perhaps the most common complaints of the farmer against rats are concerned with losses of chicks and eggs. This kind of damage is more conspicuous than the slow, steady drain on grain and other farm products. Rats are expert climbers and often damage standing corn in the fields. Corn in the shock is liable to still greater injury, but by far the greatest loss is to corn in storage.

A questionnaire sent by the Biological Survey of the United States Department of Agriculture to 200 representative farmers in North Carolina disclosed that an average of 5 1/2 per cent of the stored corn in the State is destroyed each year by rats. More than half the entire corn crop of the United States is held in storage for a period of at least three months and in that time is susceptible to injury by rats. If the average damage done by them to stored corn for the entire country is only one-tenth of what it has been shown to be in North Carolina, even then we would have a loss of more than $7,000,000 to corn in storage alone.

FLOODS AND FIRES CAUSED BY RATS.

Rats cause many conflagrations by gnawing and storing matches in warm chimney corners, and by gnawing the insulation of electric wires. Another fire hazard occasioned by rats is in the leaching out by rain of the phosphorous in rat paste exposed to poison the pests in fields. Instead of destroying the rats, the phosphorous is reduced to an inflammable concentration which destroys the growing grain, says the United States Department of Agriculture. Not even lead pipes offer a serious obstacle to thirsty rats as they are often gnawed through, resulting in damage by flooding. Tunnelings of rats under the foundations of buildings cause walls to crack by settling, and thus weaken whole structures.

RATS MENACE PUBLIC HEALTH.

The more that is learned about the rat the more inimical to the human race is it seen to be. During the Middle Ages the "black death," or bubonic plague, which was spread through the agency of rats, killed nearly half the population of the world. Twenty-five million people are estimated to have died in Europe during this epidemic. The plague recently gained entrance into the United States, but was stamped out by prompt rat extermination work by the United States Public Health Service and cooperating city organizations. During an anti-rat campaign in New Orleans nearly half a million rats were examined for plague symptoms.

TRASH ACCUMULATIONS A PROLIFIC SOURCE OF RATS.

Suitable city ordinances and competent inspection should make impossible the accumulations of trash which furnish breeding places for rats. It has been remarked that rubbish and rats both begin with "R" but that this is not the only relation between the two. The United States Department of Agriculture points out that rats may be expected wherever rubbish is to be found, and any continuous accumulation of filth is sure to attract them. A great deal of miscellaneous material is commonly stored and carried along for months in yards, cellars, and basements, and this should be disposed of. Given a safe home in basements, under chicken houses, or in other such protected places, nature will see to it that there is no lack of rats.

OPEN GARBAGE CANS SUPPORT RATS.

One of the most common sources of rat food about the average home is the garbage can. No food supply offers a greater attraction to the rat. This omnivorous pest craves a variety of food and a balanced ration, and both are found in the refuse from the table of the average family. Frequently also the garbage can provides the only available source of food for rats around the well-appointed modern home, so that attention to this one particular is frequently all that is required to deal effectually with the pests. The United States Department of Agriculture emphasizes the fact that exposed garbage, whether in open cans, in cans with loosely fitting lids, or not in cans at all, encourage rat infestation of the premises, of the neighborhood, and of the city or county. Many cities and towns have passed ordinances requiring that garbage cans have tight-fitting tops, and in some of the more progressive of these the ordinances are being enforced with good effect.

CITY DUMP AN INCUBATOR FOR HORDES OF RATS.

The rate of multiplication of rats depends on available food and shelter. City dumps provide both in abundance, and as a result are usually the centers of community rat infestation. The large numbers of rats that come from dumps to near-by residences or farms are evidenced by well-worn trails. Well-fed rats mature quickly, breed often, and have large litters. Poorly fed rats, on the contrary, breed less frequently and have smaller litters. Under normal conditions the United States Department of Agriculture says that the rat is the most prolific of all mammals, litters of more than 20 having been recorded, while close to 10 is the average for the Temperate Zone. Rats breed normally six to ten times a year, the period of gestation being only 21 days, and females breed when only three or four months old. At this rate the progeny from one pair of rats, all breeding uninterruptedly and without losses, would, at the end of three years, be increased to 259,709,482 individuals.

BARIUM CARBONATE RECOMMENDED FOR DESTROYING RATS.

Poisoning with barium carbonate is the most successful means of destroying rats known to the Department of Agriculture. This compound has the rare combination of being cheap, effective, and relatively safe.

One part of powdered barium carbonate mixed with four parts of bait, and enough water is added to make it moist. A variety of three or more kinds of bait used separately is advisable because these not only give the rats a choice of food, but also tend to allay their suspicions. Baits put out in small paper bags, or wrapped in small squares of paper and scattered promiscuously about rat-infested premises, are taken more freely than if exposed in the open.

RATS THE MOST DESTRUCTIVE ANIMALS IN THE WORLD.

No agricultural pest in existence affects a greater number of people than the rat, says the United States Department of Agriculture, and no other pest is so closely associated with both the business and domestic sides of farm life. Yet losses by rats have been sustained for so long that commonly they have been taken as much for granted as the forces of nature. But in the present day of rigid accounting and efficiency, even losses from the elements are insured against, and the time is rapidly approaching when the constant drain through rat depredations will no longer be tolerated.

The uncanny elusiveness of rats necessitates a matching of wits if one is to be successful in destroying them. In the war on rats one is not confronted with a stupid insect which requires only the employment of a routine control procedure for wholesale destruction, but with a wary animal which has instincts closely akin to human intelligence.

To be rid of rats would be worth a thousand times what it might cost. It is to the interest of every home, high and low, rich and poor, to cooperate earnestly in furthering a sentiment of intolerance against this filthy and destructive pest.

FUMIGATE RAT BURROWS WITH CARBON BISULPHIDE.

A wad of cotton saturated with about 1 ounce of carbon bisulphide is effective in destroying rats in their burrows, says the United States Department of Agriculture. The wad is placed well into the rat burrow and then the entrance is closed with sod or damp earth. Carbon bisulphide is highly inflammable and should not be approached with fire. Do not smoke while working with it or while near it.

TRAPPING RATS EFFECTIVE BUT SLOWER THAN POISONING.

Trapping rats, while effective, is slower and more laborious than poisoning, according to experts of the United States Department of Agriculture. The essential requisites of successful trapping are the use of plenty of traps, a variety of baits, and persistent effort until all rats have been destroyed.

The common snap trap is the most successful kind for general use, although No. 0 or No. 1 steel traps are efficient. Traps should always be set so that the rat will pass directly over the trigger in following its natural course close to walls and behind objects. If boards are leaned against the wall they will form a natural runway for rats and a good setting place for traps. Baits that may be readily fastened to the trigger should be used, as bread, raw or cooked ham, other meats or fish, nut meats, cheese, apple, or carrot. These may be made more attractive by the addition of rolled oats or corn-meal, sprinkled lightly over the trap.

Although large catches are sometimes made in the cage type of trap in a single night, the average catch by this means is far below that of the snap trap. Neither this nor other more complicated traps are recommended for general use.

AUTOMOBILE GAS EXHAUST EFFECTIVE AGAINST RATS.

The exhaust from an automobile may be directed into the rat burrow by means of a garden hose. The open spaces about the tube should be filled with moist earth and the engine allowed to run at moderated speed for ten minutes or more. This is an effective method recommended by the United States Department of Agriculture.

RATS HAVE MANY ANIMAL ENEMIES.

Rats are more abundant within the shelter of buildings than in the open field, because man is generally less of a menace to them than are their enemies in the wild, says the United States Department of Agriculture. If the relation of hawks and owls to rat infestation on the farm were better understood, the killing of such birds of prey would be limited to those actually caught destroying poultry, and the remainder would thus be left to their regular work of reducing the number of injurious rodents. Twenty rat skulls have been found in pellets taken from the nesting site of a single pair of barn owls.

Cats that are of real value as ratters are rare. Ferrets are valuable only when handled by experienced men aided by good dogs. The use of dogs in killing rats is recommended where practicable -- small terriers, particularly when taught to hunt by themselves, are useful and sometimes will keep a farm free from rats.

RAT PROOFING THE SUREST WAY TO RAT RIDDANCE.

Poisoning rats, trapping them, and carefully applying other extermination methods will give temporary relief, but there is always the danger of reinfestation so long as there are rats in a neighborhood and they find it possible to get inside of a building. The only sure remedy for the rat nuisance is rat-proof construction. Without it rats will get into a house, by gnawing if necessary, to enjoy the shelter and the easily obtained food. Most modern buildings and many older ones are so constructed as to be proof against the ingress of rats or could be made so at a relatively small cost. Rat-proofing of buildings, wherever it can be accomplished at reasonable expenditure, is recommended by the United States Department of Agriculture as the best and most permanent means of rat riddance. Wire screening of 1/4-inch mesh is well adapted for closing basement windows and other openings. It may also be wedged in openings around pipes where they enter buildings. Buildings may often be made rat-proof by means of concrete retaining walls.

COOPERATIVE EFFORT URGED AGAINST RATS.

The best way to prevent loss of property and menace to health by rats is through organized campaigns for rat destruction. Success in such efforts is not so hopeless as might appear at first. An intensive campaign scientifically directed and whole-heartedly entered into would, in a few weeks, materially reduce rat infestation or possibly exterminate the pests, says the United States Department of Agriculture.

Although the control of rats is largely a problem of the individual farmer or householder, rat infestation has a serious effect on the community at large. The elimination of rats from a whole community can be accomplished only by organized effort. A cooperative campaign, therefore, is highly desirable. Organized anti-rat campaigns are increasing in popularity and are coming to be part of the regular program in many counties and municipalities. Such campaigns are proving of great value from economic, educational and sanitary standpoints.

FEDERAL DEPARTMENT HELPS IN WAR ON RATS.

The Biological Survey of the United States Department of Agriculture is making a thorough investigation of methods of rat control. A large number of poisoned baits, viruses, and other preparations as well as numerous traps, contrivances, and devices to destroy rats are being collected and subjected to comparative tests to determine their relative efficiency. It has been found that there is no "sure cure" for the rat nuisance other than rat-proof construction, but that certain methods of attack are more practical and will give far more consistent results than others. It has also been found that still other methods, for which extravagant claims have been made, are worthless. The information which is being obtained by the department and disseminated as rapidly as possible is proving of inestimable value to farmers and town and city dwellers. It is especially beneficial on the one hand in preventing useless expenditure of money, time, and effort in inefficient control methods, and on the other in stimulating efforts looking toward reducing the number of rats through following the effective methods recommended.