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WILDLIFE SCIENTISTS REPORT SCARCITY OF MICE FOR LABORATORY WORK

A pest can be as pestiferous by its absence as by its presence, the Fish and Wildlife Service, Department of the Interior, is learning.

A current problem of the Denver Wildlife Research Laboratory is the shortage of test animals for use in the Laboratory's search for effective rodenticides, repellents, and systemic chemicals suitable to meet some problems of reforestation.

One of the Laboratory's many tasks at present is to learn how to protect areas being reforested during the first few critical years when birds and rodents eat the tree seeds, and deer, rabbits and other animals nibble on the seedlings.

In the past, Scientists from the Denver Laboratory could live-trap 100 deer mice, meadow mice and other small native animals in one evening. Now, with the same number of traps they can get only three or four--which means that the staff must search harder and go farther afield to get the rodents needed for laboratory studies.

It takes about 10,000 animals a year to meet the requirements of the Laboratory at the present level of work. Should the tempo be increased there would have to be a corresponding increase in the number of test animals.

Previous research has shown that domestically reared rodents do not react as do their wild cousins. Since the immediate task of the Laboratory is to find controls for wild pests, it is necessary that wild stock be used in the studies.

Chemical companies are turning out formulations at the rate of several hundred a month. The task of the Laboratory is to screen these to determine which ones might be of value in preventing animal damage. Formulations which show promise in laboratory tests are then field-tested and the information made available to interested persons. The test animals are used in the laboratory screening process.

A chemical formulation is screened to determine its value in any of five categories: Toxicity--is it poisonous to animals?; Repellency--is it distasteful in any way to animals?; Phytotoxicity--is it poisonous to plants?; Translocation--can it be carried through plants?; Residual--how long will it last?

To date the Denver Laboratory has evaluated nearly 10,000 chemical formulations for possible use as repellents or rodenticides. In recent years considerable attention has been given to the development of a systematic repellent, that is one which can be transferred from the ground to the plant through natural processes, thereby making the plant less attractive to wildlife. It is this type of material that the Laboratory hopes to perfect to protect young trees from wildlife depredations for extended periods.

A big step forward was made a few years ago when the practice of "educating the mouse" was tried and found effective. This consists of treating seeds with sufficient chemical to make the mouse sick but not kill it. The "educated" mouse then does not bother the other seeds so treated but at the same time is there to protect his territory from invasion by the "uneducated" mouse from over the hill.

In this general area of study, the Department's Bureau of Land Management and National Park Service, the Forest Service, Agricultural Research Service, and other Federal and State agencies and private industry are cooperating.

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