



DEPARTMENT OF THE INTERIOR INFORMATION SERVICE

UNITED STATES FISH AND WILDLIFE SERVICE

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"EDUCATION OF THE MOUSE" MAY ADD MILLIONS OF DOLLARS TO OUR ECONOMY

Potential savings of millions of dollars are believed possible through protection of forest seeds from destruction by mice, the Department of the Interior said today.

Extensive field tests being conducted by the Department's Fish and Wildlife Service are designed to "educate" the mice through nonlethal treatment of seeds, to discourage the foragers from further destruction of newly planted fir, spruce and pine seeds. In addition to the monetary saving, there could be direct benefits in rehabilitation of deer ranges and wildlife habitat.

The "education" program takes into consideration the tendency of animals to protect their territory from invaders. It was undertaken when conventional methods of controlling mice in areas being reseeded to timber were not successful, largely because when one population of mice was eliminated other populations from adjoining areas moved in and continued eating the seeds.

Hence there was a search for some method which would keep the mice from eating the newly planted seeds and yet leave them alive and fit to prevent invasions from more of their kind from the next hillside.

Repellents were tried, but the white-footed deer mice completely ignored them and continued to eat up to 90 percent of the seeds planted.

Then the Service biologists at the Denver Research Laboratory hit upon the idea of "education." Nonlethal amounts of toxic chemicals were included in material used to coat the seeds before they were planted. The mouse which ate a few seeds did not die--he merely got a severe stomach ache--which taught him never again to eat those little seeds but get his food somewhere else. And he was still around to repel "un-educated" invaders of his territory. The result was that tree seed-eating is appreciably reduced. Reforestation with treated seed appeared to be a practical technique.

After more tests, a new four-purpose seed coating was devised. This is being field tested now and Service personnel and lumbermen have high hopes of its success. The toxic material which sickens and "educates" mice is--in addition--fatal to some insects; another chemical added to the coating gives protection against a fungus common to the tree seeds. Still another ingredient in the coating makes the seed unattractive to birds.

Lumber companies must harvest their timber on long-range cycles. Some companies, however, are now changing their plans and are working toward shorter cycles. In the past this was not possible because so many years were lost in getting new growth established, largely because of the little field foragers which ate the seeds before the seeds could germinate. The "education of the mouse" technique may well provide the long-sought solution to this problem.

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