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THE ROLE OF THE FISH AND WILDLIFE SERVICE RESEARCH IN SOLVING THE EASTERN PINE VOLE/ORCHARD PROBLEM

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Many orchardists, nurserymen and Christmas tree growers, State extension agents, and a few Fish and Wildlife Service people are aware of the economic problems that pine voles (microtus pinetorum) cause to orchards in the Appalachian Regions of the United States. This is expected for these people have had to deal first hand with economic losses caused by these small mammals. What is unusual and somewhat discouraging is that this problem was identified over forty years ago and that we really know little more about this animal now than we did then.

True, there has been progress - the result of spurts of activity in the late thirties, the mid to late forties and again in the mid to late sixties. The net result of this minute effort has been a better definition of the geographical range of the animal, the development of three chemical compounds, all of which are in some form of registration difficulty, some knowledge of habitat requirements, a bit of knowledge about behavior and findings that allow us to raise pine voles in captivity.

One can conclude that there have been no real united efforts by growers, wildlife managers, and researchers in finding a solution to the problem. Because our research effort has been in spurts, our knowledge of how to manage pine vole problems is at best crude. This is not criticizing the efforts of Dr. Horsfall, Dr. Byers, Dr. Richmond, Dr. Rodgers, some of the early workers - Carl Henry, Howard Merrill, Walt Dykstra, Ki Faulkner, and others, for they have all contributed.

For instance, endrin has been developed as a control method, population dynamics are better understood, chlorophacinone is being developed, habitat requirements are better understood, etc. However, it seems that better and more progress in a shorter time frame could have been made. But this could only have been accomplished if the Fish and Wildlife Service, orchardists, and State agricultural colleges had joined together in an all out attack to solve the problem. What has been lacking is a total commitment, probably because pine voles do not affect a large enough group ot people all at the same time.

What can be done about this situation. First of all, all those individuals who have the potential for being affected must recognize that pine voles are a serious agricultural pest. Secondly, we must realize that finding lasting solutions to problems caused by vertebrates is a difficult task. Science has advanced further than trial and error research and problem solving and solutions to these problems require a total effort. Such an effort includes determining the economic losses incurred by the pest species, an understanding of the biology of the species, the development of safe and effective methods to alleviate losses, and proper instruction and education in controlling losses.

In the case of the pine vole a few research and management needs are:

1) A method for estimating pine vole damage to orchards.
2) An understanding of the population dynamics of pine voles living in orchards.

3) Habitat requirements of pine voles living in orchards.
4) An understanding of the role horticultural practices play in regulating pine vole numbers.
5) Safe and effective methods for alleviating losses.
6) A good educational program.

With adequate support, in three to five years, a solution to this problem is possible. When I speak of support, I include support for Federal and State programs. There is no room for territorialism or duplication and I hope that cooperation can easily be obtained.

At this point, it would be well to note that the Fish and Wildlife Service initiates research activity based on a priority system. Priorities are established through the use of a number of criteria. Need, as identified by field personnel, is one criteria and generally, unless an expression of internal need is reinforced with an expression of want from outside the agency, priority remains low. In other words, funding to initiate new efforts often must come from the outside. It is fair to say that the Service, as well as the Congressional Committees, are more apt to be swayed by a large group rather than individual producers. Therefore, it would seem to me that the State Horticultural Societies in unison would have a much better impression on their political representatives than if they dealt with them singularly.

Without outside political influence a real answer to this problem is far in the future. CAN YOU WAIT?