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Survey of Pine Vole Activity in Apple Orchards near Roanoke, Virginia

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A survey of pine vole activity in apple orchards around the Roanoke, Virginia area was made in conjunction with current trapping efforts involving pine vole research. A total of 60 orchards were examined and subjectively ranked according to pine vole activity. At least 10% of the trees in each orchard were examined for signs of possible activity.

Surveys were conducted during the fall and winter 1978 seasons in a 6 county area surrounding Roanoke, Virginia. Vegetative conditions of orchards varied from a maintained orchard to an abandoned orchard. Pine vole activity was noted in each orchard: activity being defined as visible evidence of pine vole presence such as runways, holes, and partially consumed apples. Each orchard was ranked according to the extent of pine vole activity present. One of 3 activity levels was assigned to each orchard: 1) low activity, with little or no trees examined showing signs of pine vole activity, 2) medium activity, with pine vole signs scattered among trees in orchard, and 3) high activity, with pine vole signs occurring at almost every tree examined. Pine vole control methods were also noted for each orchard reviewed.

Three types of categories for pine vole control were practiced among the 60 orchards examined. These included: 1) no methods practiced, 2) annual spray applications of endrin, and 3) annual baiting of chlorophacinone (Rozol) pellets. Among the 60 orchards reviewed, 20 (33%) had no pine vole control program, 31 (52%) were treated with endrin, and 9 (15%) of the orchards were treated with chlorophacinone.

Rating of pine vole activity for the 60 orchards showed that 35 (58%) orchards were low in activity. Among these 35 orchards, 10 (29%) had no treatment program, 17 (49%) were previously treated with endrin, and 8 (22%) had previously been treated with chlorophacinone. Seventeen of the 60 orchards rated had medium pine vole activity. (Among the 17, 6 (35%) orchards had no treatment program, 10 (59%) orchards had been previously treated with chlorophacinone.) Eight (13%) of the 60 orchards reviewed had high pine vole activity. Among the 8 orchards, 4 (50%) had no treatment program, 4 (50%) were being treated with endrin and none was treated with chlorophacinone.