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Matters of Concern in Rodent Control in
Pennsylvania Orchards

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Rodent control -- both meadow and pine -- has been and continues to be a matter of major concern in all Pennsylvania orchards. Insect and disease problems are vexing but largely seasonal and comparatively easy to correct. Rodent damage, at best, is a debilitating factor in tree growth and fruit production. At worst, it is terminal so far as tree life is concerned.

As matter of record, Pennsylvania's extension orchard specialists have stressed mouse (vole) control in our printed recommendations for over 40 years. The problem has been present in orchards for as long as the orchards have existed. However, it seems that it did not reach really serious economic levels until the time that the practice of pasturing livestock -- horses, cattle, hogs -- was discontinued.

At present, Pennsylvania's pomology extension recommendations for mouse (vole) control are two-pronged. We stress both the physical and chemical methods to be used to gain some degree of control.

The recommended practices are listed below:

Sod Control: Discing, or the use of herbicides, to keep a 4 to 5 foot band of bare ground on each side of the tree row and periodic mowing, sufficient to keep the sod at a 3 to 6 inch height, is emphasized. Since the mice are rather timid animals, it appears that they do not find a short-sod habitat inviting.

Crown-Trunk Protection: At the time of planting, we recommend that one to two bushels of crushed limestone (quarry fill grade is excellent) be placed around the trunk of the new tree. The rock is placed so that it forms a mound 4 to 6 inches high around the trunk. We recommend also that a hardware clothe guard be placed around the trunk. We believe the hardware clothe to be superior to the spiral plastic guard. The wire guard is constructed from a piece 15 by 18 inches formed into a circle with the 18-inch dimension as the length of the tube.

Rodenticide materials and baits: Pennsylvania's pomology extension recommendations currently include the use of zinc phosphide baits (0.92-2.0%), chlorophacinone (both dry baits and liquid forms), and diphacinone baits. We also include specific information concerning safe, proper use of endrine for orchard mouse control.

We have tried not to depend entirely on one system to control the vole situation. Rather we believe that the physical control measures -- crushed rock, mowing and wire trunk guards -- should be the primary control measures and that the chemical baits and sprays should be considered as materials to be used in handling crisis situations.

In any event, we do believe that the chemical control measures must be continued in federal registration to provide the fruit grower with a sufficient array of control measures to control the meadow and pine mouse (vole) problems.