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Rodent control is essential for urban agriculture farmers

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Control of rodents is essential for food safety and financial success on urban farms.

During a recent urban farm visit, the tell tale signs of a rodent infestation were discovered. Specifically a large number of rat burrows, damage to fruits and vegetables, and rat droppings were present. Additionally the urban agriculture operator saw a live rat and mice in the high tunnel hoop house. In this case the rat and mice population was well established and a professional exterminator was needed to rid the farm of the rat and mice infestation.

It is essential for beginning farmers, home gardeners and experienced farmers to prevent rodent infestations on the farm. Rodents affect the farm in several ways. First and foremost, they are disease carriers. Rodents can cause, but not limited to Hantavirus Pulmonary Syndrome, Leptospirosis, Salmonellosis and Rat Bite Fever. Additionally they contribute to the spread of other diseases caused by the parasites that infect rodents. Rodents also cause physical damage to structures. Rat's teeth never stop growing and to keep them from getting too long, a rat must chew to grind them off. The chewing can cause damage to wood, plastics and concrete used in the urban farming operation. Finally, rodents cause financial loss due to crop damage, and damage to facilities.

One of the key ways to prevent an infestation in urban farm operations is to have good farm hygiene. This starts with the development of a GAP (Good Agricultural Practices) plan, and using the GAP plans to insure practices that promote food safety are being followed. In the Detroit case, the farm had set up a compost pile, but the pile had not been properly managed. Consequently, discarded produce was left rotting and the proper conditions for making compost were not

achieved. The farmer had also left crop residue in the high tunnel hoop house, which compounded the problem by creating a good environment for the rat problem to grow, particularly when the weather had gotten colder. The farmer will now need to establish an exclusion zone, where produce cannot be grown for a period of time, until the zone is considered safe. Development and use of the GAP plan, would have given the farmer cues to the necessary steps to prevent a rodent infestation. Some of the steps in a GAP plan to prevent rodent infestation would be set backs where no vegetation is growing around structures. Keeping weeds cut short, thereby eliminating harborage. Proper storage of waste and feeds, in rat proof containers will help significantly. Elimination or proper management of compost piles, including setbacks from neighbor's property lines, and proper disposal of fruit and vegetable crop residue will help control rodents. If you have rodents, you have several options including bait, traps and predation, which would be part of an IPM (integrated pest management) program. The farmer may also need a professional exterminator to control rodents.

In the urban environment, using a GAP plan and an effective IPM plan with regard to rodents is particularly important. This is because of the close proximity of people and neighboring properties, which would be directly affected by a rodent infestation. Two significant issues are ineffective composting and livestock operations. At the very minimum, persons composting should have training in composting techniques, and should not be allowed to create a nuisance for neighbors. Local governments are also considering urban livestock agriculture ordinances to allow citizens and urban agriculture producers to keep farm animals. Introduction of livestock and feeds into the urban environment will likely increase rodent populations. Proper management and storage of feed and animal waste is critically important. Risk to neighbors can be reduced with exceptional farm hygiene and if proper setbacks are established, such as the Michigan GAAMPs setback for livestock in urban and suburban areas.