IN THE DIRT

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Where Do Insects Go For Winter?

Where do all those insects retreat to for winter? Some are snowbirds and head south for the winter. Others overwinter in the garden, while some spend the winter in nearby cracks and crevices of structures and on weeds. The snowbirds include armyworm, corn earworm (also known as tomato fruitworm) and striped and spotted cucumber beetles. Since these insects do not overwinter in the garden, sanitation is not considered a control method for these

insects.

However, many insects do overwinter in the garden and cleaning up and destroying plant debris can reduce their numbers. Reducing the population of insect pests limits the amount of damage they cause and provides more control options. Insects that overwinter on plant debris in the garden include cabbageworm, cabbage loopers, and squash bugs. The cabbage caterpillars overwinter as pupae inside cocoons attached to plant debris, usually the host plant. Squash bugs spend the winter as adults hiding in plant debris.

Insects that overwinter in the soil are the adults of Colorado potato beetles, the eggs of grasshoppers, and the pupae of squash vine borers and onion maggots. Fall tillage of soil reduces these insects by exposing the insects to colder temperatures. Removing plant debris removes an insulating layer that also protects insects from extreme temperatures.

Bean leaf beetles spend the winter as adults in nearby sheltered areas, preferring to spend the winter in the plant litter of windbreaks and woodlands.

Some insects spend the winter on weeds near the garden. Fall sanitation not only includes cleaning up or tilling under vegetable debris in the garden, but control of nearby weeds as well. When cleaning up plant debris, can it be added to the compost pile? The general recommendation is to not add insect infested plants, diseased plant debris, or weed seeds to home compost piles. Most plant diseases and weed seeds, as well as some insects, are destroyed during composting when temperatures in the pile center reach 140° to 150°F. However, in many home compost piles, it is difficult to mix materials thoroughly enough to bring all waste to the center where it will be exposed to these temperatures.

Finally, it is often asked if insecticides applied to bare soil in fall will kill overwintering insects. The answer is not very often, if at all. Overwintering insects are often in the pupae or egg stage where they are protected from insecticides. Applying insecticides to soil to try and control overwintering insects is not a responsible or effective use of a pesticide.

Fall Rose Care

There are several things you can do to make sure your roses survive our Nebraska winters long before the cold winds blow. First, choose the most winter hardy roses available to plant in your rose bed. Next, make sure your roses are healthy and not under stress as they go into winter. Strong plants have a better chance of surviving the winter than weak plants. The most important thing you can do to reduce stress on your roses is to irrigate them adequately in late autumn. The last fertilization of roses should have been done in early August and no further applications should be made later in the year.

Hilling or mounding soil around the base of the plant protects bush-type roses, like hybrid teas, floribundas, and grandifloras but should not be done until after



the first hard freeze has caused all the roses leaves to fall. Begin by removing fallen leaves and other debris from around each plant. Removing all of the old leaves is very important, especially if disease problems occurred during the summer. Leaves serve as a good source of overwintering fungal spores that can re-infect your plants next year.

Prune out any broken, damaged or disease canes. If the plant is tall, loosely tie the remaining canes together with twine to prevent damage from strong winds.

Then mound soil, compost or wood chips up round the base of the plants about 10-12 inches tall. Place straw or shredded leaves over the soil mound for additional protection.

If a styrofoam rose cone is used, prune the bushes to allow the cones to be place over the plants and again remove any broken, damaged or disease canes. Mound 6-8 inches of soil up around the base of each plant since the cone alone won't provide adequate winter protection. Then place a cone over each rose, securing it with heavy objects. Make small holes or slits in the top of the cone to provide ventilation.

Winter protection for climbing roses is imperative as most bloom on the previous year's growth. One method of protection is to attach a sturdy pole to a fence or trellis above the climbers crown. Untie the canes from the fence or trellis and retie them securely to the pole. Wrap the canes in burlap and stuff the whole thing full of straw. This will insulate the plant somewhat from temperature extremes and protect it from drying winter winds.

Again, protect the base of the plant by mounding up soil or compost. Another method is to remove the canes from the trellis and bury them in a shallow trench, followed by a covering of 3-4 inches of soil. After the soil freezes, clean mulch may be added. This will keep the sun from thawing the soil too early in the spring. Remember, plants need watering during dry winters, especially in December, January and February.

Moles and Pocket Gophers

Cooler weather often brings increased burrowing activity of moles and pocket gophers. Here are a few tips to handle these animals if you wish to initiate control.

1. Be sure you have identified the suspect accurately! Moles create round mounds as well as surface runs that collapse when you step on them. Pocket gophers create kidney- or fan-shaped mounds and do not create surface runs.

2. Act in a timely manner. The damage of both animals can remain visible for weeks and sometimes years. Control works best when it is done in response to fresh damage.

3. Select the right tools and use them properly.

Lots of people fail in the management of these species because they don't use the right equipment. Moles don't eat grain, so grain-based toxicants are not recommended. I suspect that the cause behind toxicant failure for pocket gophers lies in neglecting to position the bait in the main tunnel or accidentally burying the bait.

If you prefer trapping, understand that all the traps work. Trapping is most effective when setting more than 1 trap and when the trapper pays attention to the details. The benefit of trapping is that you have proof of control.

UNL Extension has NebGuides on moles & pocket gophers that will provide further details to make your control successful.

