Master Gardener Foundation
Grays Harbor & Pacific Counties, Washington

Pest Corner

March, 2008

Holes in Your Garden

It may be a cold early Spring…but there is much ground-surface activity in the garden. Not just bulbs and weeds growing, but also holes and mounds appearing everywhere! The cat and I might amuse ourselves by observing the sizes and shapes trying to identify the suspected nocturnal digger.

Six-inch holes: This is the largest hole to be found in Western WA lowlands made by the Mountain Beaver (Aplodontia rufa). The hole may have a mound of soil at the entrance. This type of beaver usually digs shallow tunnels in brushy areas and rarely invades yards and gardens.

Two-inch holes: Norway rats (Rattus norvegicus) are skilled burrowers and will often dig holes about two inches in diameter around foundations, decks, woodpiles, etc. Rat burrows seldom have a mound of soil at the entrance.

Raccoons will also dig 1 or 2 inch holes in lawns while searching for worms and cranefly larvae. These hunting holes are only a couple of inches deep and scattered about the lawn. In newly installed turf, raccoons will sometimes roll up the lawn in search of food.

One-inch holes: Meadow mice (Microtus spp.) often burrow in the turf of hayfields or other areas with tall grass and they will sometimes invade yards and gardens. In loose soil they will often leave open holes about one inch in diameter. Meadow mice are common invaders of gardens where they feed on root crops, tree roots and flower bulbs. Their tunnels may be mistaken for those of moles. Moles however, never feed on roots and usually make “molehills” while tunneling. Mole hills may be as small as a couple of inches in diameter or as large as a couple of feet. In loose soil or in areas where moles have been at work for a long time, there may be no hills at all.

One-half to one-quarter inch holes: Night crawlers (Lumbricus terrestris) are commonly found in lawns and are occasionally quite numerous. These worms make permanent vertical tunnels throughout the yard, leaving small piles of droppings at the entrances.

European Cranefly larvae will also make small holes (¼ inch) when they come out at night to feed on the grass crowns.

Starlings will punch holes in the turf while searching for worms and crane-fly larvae.

Looking at the ground, one may decide to spread bark for mulching. The amount to remember is: One cubic yard of bark will cover about 300 square feet one-inch deep.

Shopping for bark I ponder on how to control the insects that live in the soil (which are the food supply for the hole diggers) and about insecticide choices.

Beneficial Nematodes

When applied properly and at the correct time, parasitic nematodes are active against more than 200 insect species, including root weevil larvae. European cranefly larvae, cutworms, and pest beetle grubs.

One of the most useful applications for parasitic nematodes in the Pacific Northwest is an early fall application to control root weevil larvae. Known infestations of European cranefly in turf also can be treated in the fall with nematodes.

In order for nematodes to be effective, soil temperature should be at least 55 degrees F. Thus, they may not be effective against early season pests. Perhaps later in the Spring when soil has warmed up, this becomes an option.

Insecticidal soaps

These kill insects primarily by damaging their cuticle. Useful against soft-bodied pests such as aphids, thrips whiteflies, spider mites, scales, leafhopper nymphs, spittlebugs, and some caterpillars. Insecticidal soap is virtually nontoxic to humans and biodegrades rapidly. It may kill predatory insect larvae that are feeding on pests when soap is applied. Otherwise it is safe for most beneficial insects.

Insecticidal soap must contact pests directly to kill them. It is effective only while still wet; there is no residual activity after it dries. It usually does not kill insect eggs, so repeat sprays often are necessary to control newly hatched pests. Soap can damage certain plants. Use it according to label directions and do not use it on water-stressed plants or if the weather is very hot. Another way to avoid damage is to spray plants, let the soap dry, and then rinse it off with a spray of water.

There are many homemade recipes for insecticidal soap made from liquid dishwashing detergent. These sprays are risky to use because different detergents have different concentrations of active ingredient. If spray is too concentrated, it may harm plants. It is best to use a commercial product that has been tested on a variety of plants.

How about attracting more birds that can eat a few of the damaging insects? Hummingbirds also feed on insects. What about new plants that you could enjoy this year? Here are some that will please you and the hummingbirds: Flowering Crab, Hawthorn and Horse Chestnut; Shrubs: Butterfly Bush, Flowering Quince, Flowering Currant, Azaleas, Weigela and Lilac; Vines: Trumpet Creeper, Clematis, Honeysuckle and Yellow Jasmine; Flowers: Garden Phlox, Bee Balm, Hardy Fuchsia, Hardy Hisbiscus, Hollyhock, Geraniums, Rose Mallow, Coral Bells, Red Hot Poker, Tiger Lily, Columbine, Larkspur and Sweet William.

You can further increase the hummingbird population in your garden by avoiding the use of insect sprays or pesticides on or around hummingbird feeders.

Adapted by Cecilia from articles by Don Tapio, Grays Harbor County Extension Agent.