

## Common Garden Pests

By Sheri Bethard, Certified Texas Master Gardener, Orange County Master Gardeners

Today I am going to talk about some of the common garden pests you might have started seeing in your gardens both vegetable and flower. I, personally, prefer to use as much organic methods as possible. Below are some of the common pests we see and some unique ways of treating them without harsh chemicals. This will be a 3-part series.

**Aphids** – There are many different ways to remove your plants of aphids from hand-picking them off, blasting with water, using organic Neem oil, beneficial insects like Lady Beetles (Bugs) or onions. Onions and garlic have their own special odors which aphids dislike. So, planting onions or any other of Allium family will do the trick. Another way to use onions is in a spray mixture. Chop a small onion finely, add 2 minced garlic cloves, 1 tbsp. baby shampoo and 2 cups of water. Mix in a blender, let sit overnight, strain thru coffee filter and spray with handheld sprayer next morning.

**Cucumber Beetles** – These yellow and black bugs are a nuisance to those growing cucurbits of any kind. They are the primary carrier of cucumber mosaic virus and serve as carriers for a variety of bacterial and other viral diseases. Life cycle is about 8 weeks, so you could see 3 generations in a growing season in our area. Any plants you remove because of any disease, do not put in your compost so they don't attract more beetles. Ways to control: young plants - cover with row covers, screens, or cones. Try planting your crop later in the season so the beetles will be attracted to other gardens, leaving yours along. Mulch the ground with straw, hay, plastic or fabric to deter the bugs from laying eggs in the soil near the plants, even tho this will not eliminate them entirely. A mix of ½ cup wood ashes with ½ cup hydrated lime in 2 gallons of warm water sprayed on upper and lower leaves will also help control them.

**Grasshoppers** – Grasshoppers can be controlled by applying a garlic spray. The odor will help deter them and other pests. Blend 2 bulbs of garlic with 10 cups of water and heat to boil, then let sit overnight to cool. Strain the mixture and fill a spray bottle with one part of the garlic solution and 3 parts water. Spray on leaves, top and bottom. Or dust with flour. This will cause the grasshoppers to starve by gumming up their mouth. Use all-purpose flour as other types contain salt. Attract birds to your back yard with feeders and baths. Or you could raise chickens as they love to eat grasshoppers along with ants and roaches.

**Hornworms** – These are the nemesis of your tomato plants and any others in the nightshade family (peppers, eggplants and potatoes). One day the plants are nice and full of leaves and the next they are bare as they like feeding at night. Several ways to rid your garden of them is tilling the soil before planting in the spring, this should destroy the pupae in the soil keeping the five spotted hawk or sphinx moth from hatching. The

next way to control is to hand-pick them off your plants and destroy. Interplant with Marigolds, Calendula, Borage, Nasturtiums, Basil, Dill, Chamomile. These give off strong odors which confuses the sphinx moth, and some attract beneficial wasps to attack the pest by planting their eggs on them. Plant a trap crop such as flowering tobacco which the sphinx moth can't resist. Rotate your crops. Another beneficial insect is the Lady Beetle (Bug) as they feed on the larvae. Then of course you can spray BT if you feel you have to spray something.

**Leaf footed bug** – Some call them stink bugs also, but that is another bug entirely. These are the ones getting on your tomatoes and peppers and leaving light colored marks all over them. In researching how to get rid of them, I found the best way is to start with the nymph before it gets into the adult stage. Do this by spreading a tarp, plastic, newspaper or something on the ground below the plants. Tap the plants with a stick or shake lightly to make them fall. Then dump them into a bucket of soapy water. Do this daily until they are gone. Or you could spray the nymphs with a ready to use insecticidal soap spraying the tops and bottoms of the leaves and stems. Repeat every 3-4 days until you don't see any more nymphs. No not use if about 90 degrees. Be sure to remove debris from your yard in winter to remove leaf footed bug eggs than may be overwintering there.

**Leaf Miners** – Spinosad is a microorganism that occurs naturally in the soil. It can be purchased in a liquid form and sprayed on the leaves to control them. Repeat treatment every 4-7 days until life cycle is cut off. A home remedy is 2 cups of vegetable oil and ½ cup liquid soap, mix and pour in spray bottle, spray affected areas. Or Boil hot pepper flakes in water, mixing well. Allow to cool and apply to leaves. Strain before spraying.

**Mealy bugs** are found just about on any plant. When spraying, be sure to get down in the crevices of the plant to kill any eggs the female may have laid there as she likes to lay eggs in dark spaces. To get rid of mealy bugs you can dab with a cotton swab dipped in alcohol, blast of water, spray Neem oil or Insecticidal soap. Here are a couple of sprays that work also. Mix - 1/2cups brewed black tea, 1 tsp. baking soda, 1 tsp. dishwashing soap, 1 ½ cups of warm water in a hand-held sprayer and mist-spray infested plants thoroughly. Repeat the treatment, if needed, to make sure those bad boys bite the dust for good. Or, another option is mix 2 tbsp of corn oil and dishwashing liquid each in a gallon water in a bucket. Put in sprayer and apply thoroughly.

**Root Nematodes** – They are microscopic worms and signs you have problems with them are stunted or wilted leaves and shoots. When you dig up the plants you will notice tiny galls all over the roots. Stop them by mixing 1 can of beer and 1 cup of molasses and put in a hose end sprayer (20 gallon) and thoroughly soak the area. Another recipe is ½ cup sugar and 2 cups of water, boiling until sugar dissolved. Cool, add to 1-gallon water and put in hand-held sprayer. Spritz your plants to the point of run-off. The sugar water will

attract bees and other pollinators to your plants while the run-off will kill the nematodes.

**Slugs** – are the slimy pains of our plants leaves, coming out at night and chomping away. Of course, just about everyone has heard of putting out beer for them, use the cheapest you can find in a very shallow dish. They will come oozing on in. For those too small to make the traps, scatter eggshells or used coffee grounds, sprinkle sand around or opt for plants that slugs don't like such as rosemary, lavender, begonias, sage nasturtium or lantana around your veggies

**Spider Mites** – When you notice your leaves turning spotty and yellow, check the undersides for spider mites. These are one of the hardest pests I have found to get rid of. You can remove the infested leaves and put in the trash if you catch it in the initial stage. Put in a sealed bag. Isolate the plant so other plants won't get the spider mites. Clean your plants with a mix of 1-gallon lukewarm water and 3 tbsp. mild soap. Wipe the leaves gently. Do this weekly. Some plants are sensitive to soap so try on one leaf before the whole plant. Try plant based miticides such as Pyrethrum, Cinnamite, Neem oil or Rosemary oil. You must repeat every 3 days for 2 weeks to make sure you have killed all generations. These products do not kill the eggs. Or a blast of water from a jet sprayer or encourage beneficial insects. There are several homemade sprays you could try. Herbal Tea – mix 1 qt. water, 1 tablespoon ground cloves and ground cinnamon and 2 tablespoons of Italian seasoning. Boil. Remove from heat and cool some and add 2 tablespoons crushed garlic then cool completely. Strain and put in sprayer, spraying the undersides of the leaves. Do this every 3 days until infestation is gone. I have not tried these remedies but will the next time I have them. This last one sounds like a recipe for biscuits – 2 cups of wheat flour, ¼ cup buttermilk, 2-gallon water. Mix well in bucket they pour in sprayer and spray.

**Squash Bugs** – Interplants your squash plants with nasturtiums, onions, marigolds or tansy. Squash bugs won't go near 'em. If there is already an infestation, spray the leaves of all affected plants with a half and half solution of water and vanilla flavoring to leave a foul taste in the bugs mouths.

**Squash vine borers** infect and devastate a variety of plants from the cucurbit family, including squash, gourds, cucumbers, pumpkins and melons. Injecting *Bacillus thuringiensis* (Bt) directly into a squash plant's vine is the fastest way to control the problem. This is done right after the first flowers bloom in order to get the treatment's maximum effectiveness.

Insert the tip of a disposable, 3cc hypodermic syringe filling the syringe with 1cc of liquid Bt. Insert the syringe's needle tip into the squash vine stem about 1 1/2 inches above the soil line. Push down on the syringe's plunger to inject the Bt into the vine. Push slowly so that the Bt doesn't leak back out of the injection hole.

To Clean your syringe, combine a mixture that is 1/2 water and 1/2 chlorine bleach in a bowl. Insert the syringe's needle tip into the water-bleach mixture and pull back on the plunger. Push the plunger down to squirt out the water-bleach solution, repeat. The water-bleach mixture sterilizes the needle and prevents the spread of disease. Clean the needle after each injection. Repeat the injection in about one week to 10 days.

### **Tips**

- If your squash plant has an advanced vine borer infestation, inject Bt about 1 inch above each borer hole.
- You can remove the borers by hand. Make a vertical slice through a stem, but don't cut through the stem completely. Extract the borer worms with the knife and throw them into a bowl of soapy water to kill them.

**Stink Bugs (Brown marmorated stink bug)** – These little buggers get inside your homes via cracks in siding, foundation, etc. They also like fruits and veggies. You can try to vacuum them up if you have a hand vac you can take to the garden. But they usually fly off after you turn it on from the noise as I have heard. There is a Garlic spray for stink bugs. Mix 4 teaspoons garlic (minced), 2 cups of water together, strain and put in sprayer. They do not like the smell of garlic. Or you can chop up garlic and leave bits around your plants. A Mixture of garlic powder and water sprayed on the ground around your plants will help also. Will have to be reapplied after rain. Soapy water spray is an option by mixing  $\frac{3}{4}$  cup mild dish detergent and 32 oz. warm water. Spray on bugs. Another suggestion I found was spraying with hairspray which paralyzes them. Then there is always trusty Neem Oil you can spray.