What's eating my plant? Common Garden Pests of Hawaii

by **Kauai Seascapes Nursery** on December 11, 2017 in **Tips**

"What's eating my plant" is a common question we receive here at the Nursery. If you're a gardener in Hawaii, you know that pests can be a real problem. From slugs to aphids to beetles, these critters can quickly damage or destroy your plants (and your hard work). However, there are ways to cope with garden pests without resorting to chemical pesticides.

In this article, we'll explore some effective, environmentally-friendly strategies for keeping your garden healthy and pest-free.

Common Garden Pests

Rose Beetles


Rose Beetle Damage

The **Chinese Rose Beetle, Adoretus sinicus** is a reddish brown, hard shelled, invasive beetle from eastern Asia. It will eat anything that tastes good at dusk, leaving you with a surprise to find the next day. Your plants might only be left with the veins in their leaves, resembling skeletons. Or maybe he wasn't too hungry last night and your leaves look like lace. Either way, the damage is distinguishable from slugs as they will eat the leaf with no artistic expression.

Yay! We know what's eating our plants! Now what? I really hate to break it to you but there's not much you can do about Rose Beetles except to **wait for them to get full or sick of that flavor of plant and move on to your neighbors.**

There are some methods to attempt, including shining bright lights on your plants at dusk. They dislike bright light so you will be attempting to trick them into thinking it's midday. Alternatively, you can spray your plants with something that tastes bad and train your rose beetles not to eat your plants.

Slugs


Slugs

Veronicella cubensis, the Cuban slug is one of the most commonly seen garden pests, and our least favorite. They are soft, slimy, and disgusting creatures. As they move along our soil and plants, they leave a slimy trail leading us to their handiwork; holes in our plants.
Early morning or late evening I'll go out and collect them with a glove and a spoon, toss them into a bucket and drop them off far away. After regular collections the population decreases and one may only need bait for the occasional straggler. I have found collecting and disposing to be the most effective means of elimination, even when there's larger infestations.

If you don't have much time or if you have large areas to cover, **regular applications of Organic Sluggo** works when the ground is dry. Other creative methods like beer traps can also help. Try to keep your garden clear of rotting leaves, debris and standing water as best you can. No food for them means they'll soon move on.

Caterpillars


Monarch Butterfly Caterpillar

If you read our previous blog on **Native Butterflies**, you'll know that Hawaii is home to 17 species of Butterflies (2 native) and also 955 species of native moths (as well as many other non-native moths.) Each of these winged creatures has host plant(s) that support their juvenile caterpillar form. While butterflies are delightful creatures to see, their caterpillar forms can do destructive damage to your garden plants.
With caterpillars, we pick our battles at the nursery**.** We purposely grow Crownflower to support the Monarch Butterfly, but on very young plants we do have to **monitor the caterpillar population or they will literally eat the plant to death.**
Same for the Citrus Swallowtail Butterfly which lays its eggs on citrus leaves. If you have a young citrus tree with minimal leaves, you'll want to monitor it for caterpillars, as one caterpillar can demolish all the new growth on the tree in a matter of days!

Watching for eggs and gently smooshing or scrapping them off is the easiest way to manage the population. Removing the young caterpillars once they've hatched is also a good method, especially if you have another tree to relocate them to. (FYI relocating a young caterpillar off of its host plant to another species of plant is still effectively killing it, unless you relocate it to a larger host tree where it can continue eating.)

Leafhoppers


Leafhoppers

Leafhoppers lay eggs during cool, moist spring weather. Nymphs feed for two or three months and grow into light green bugs, wider at the head than at the tail, but only about 1/10 to 1/8 inch long. Adult leafhoppers live only about 30 days, but migrate over long distances.

You'll find them happily feasting away on nightshades, particularly tomatoes. They feed on plants by piercing new leaf surfaces and sucking plant fluids through long mouthparts on their heads, inoculating the plant with the virus as they feed. Affected leaves curl inward and fade. Veins may show up as purple lines or the entire leaf may change color.

Apply diatomaceous earth to plants and/or spot treat with organic insecticidal soap to keep pest populations under control. Thorough coverage of both upper and lower infested leaves is necessary for effective control.

Rose beetles, slugs, leafhoppers and caterpillars are attracted to your plants because they're hungry. Not necessarily because there's something wrong with your plant.

Mealybugs


Mealybug Cluster


Individual Mealybug

Mealybugs are white cotton looking creatures that suck plant sap and ooze yellow guts when squished. They live on the underside of leaves, stems and occasionally roots. Individuals are distinct.

Whitefly

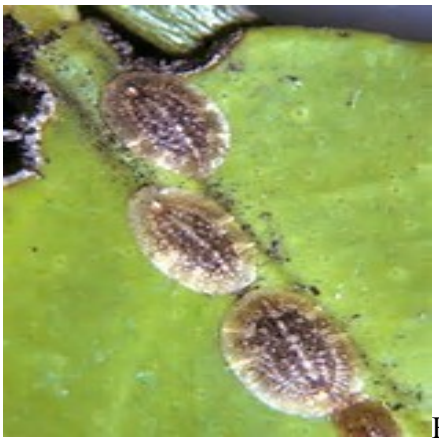

Mature Whitefly

Whitefly-Eggs & Nymph Stage

Whitefly is another white cotton looking cluster of creatures but different from mealybugs. The adult stage of whiteflies do fly, mealybugs do not.

You can see different stages of development on the undersides of leaves: **eggs and nymph stages form a white frosty dusting**. As they mature, they form a “lovely” thick blanket of snow, and the tiny snowflakes (adults) dance around the plant.

Scale


Hard Scale

Cottony Cushion Scale

Scale are interesting creatures. They are immovable by itself, suck sap, and are farmed by ants who enjoy the sticky residue produced by the scale.

Scale comes in a wide variety of shapes, colors, and sizes. They live on the tops and bottoms of leaves, stems and apices.

Gall mites


Hibiscus Gall Mites

Gall mites (Aceria hibisci) are the most hideous intrusion on a beautiful hibiscus. You will see **ugly, bumpy, warty protrusions inside the newer leaves.**
Luckily their life cycle is only 3 weeks. Remove infected foliage as soon as you see it, to prevent further spread.

Sooty Mold

Sooty Mold on Gardenia

Sooty Mold is a black fungal disease that grows on the secretions (aka 'Honeydew') of pest insects, usually aphids, scale, or whitefly. Sooty mold is not an infection of the plant but rather grows on the surface of your plant. However **severely coated leaves cannot photosynthesize and the plant's growth can become stunted.**
Treating the insect pest responsible for feeding the sooty mold is your first step, followed by an organic fungicide treatment for the mold. Once the mold is treated for, it will slowly flake off or can be gentry scrubbed from the plant. In severe cases, it may be best to lightly prune back the infected areas to encourage new clean growth.

Ants

Many of the above pests go hand in hand with ants (who "farm" the pests for their secretions), so while you're treating pests, don't forget the ants.


Ants Farming Aphids

Let's talk about how ants work for a sec. **They work on two substances: sugar and protein.**
Sugar is the most likely food to get picked up and taken back to the nest, but may not get passed to the queen.

Protein is the most likely to get passed to the queen. You need both sugar and protein in the same crumb to ensure it's taken back to her.

Here at the nursery we do a **combination of Mrs. Buttersworth syrup and peanut butter with borox**. A combo of sugar and protein, certain to get poison to the queen.

Keep in mind, when you kill a nest of ants, you now have a vacant ant home for sale to which new ants can take up residence. Be prepared to repeat applications. If you're looking for conventional ant bait, MaxForce has the combination of sugar and protein.

What to do about Pests on your Plants?

When you start to notice pests on your plant, you'll want to start taking action to curb the feast and salvage your plants. Start by becoming observant. If your plant is stressed, they will send out stress hormones which can attract **a whole host of annoying pests like mealy bugs, whitefly, scale, or gall mites.**

There are two key principles when you notice pests. Relieve the stress and treat the pest.

- **Determine sunlight and watering and adjust appropriately.** Maybe your Areca palms are shading out something that needs more sun? Cut the tall ones. Maybe we've had a dry spell? You'll need to increase water.
- **When's the last time you fertilized?** If you can't remember, make notifications in your phone calendar. Read your fertilizer instructions for application rates and frequency. Stay on it!
- **Prune appropriately as part of your regular plant health check**. They like it!
- **Is there a plant in the wrong place?** Time to move it somewhere it will be happier and healthier.

Bottom line—Relieve the stress. Provide adequate sunlight and water, fertilize and prune appropriately. Then when you've got that going, determine your pest and its appropriate insecticide.

Common Garden Pest Treatments

Most of these pests can be treated with eco-friendly options such as Neem Oil, Insecticidal Soaps, Horticultural Oil, and Copper Sulfate. Read labels on any product you purchase to verify it will work on the pest you are treating, and also how to correctly apply the product.

At the nursery, we have found it best to vary your treatment on repeat offenders. We rely on Neem Oil and a few other concoctions of organic pesticide products, and are able to treat all our pest problems at the nursery organically.

Here's a simple Homemade Insecticidal Soap Recipe for minor pest issues.

The simplest insecticidal soap is nothing more than a 2% soap solution. To make this at home, you will need:

1. **Sprayer:** Any clean spray bottle or garden sprayer will work fine for spraying insecticidal soap. Make sure the sprayer or bottle hasn't been used for herbicides.
2. **Pure Soap:** Use a pure liquid soap, such as Castile, or all-natural soap. The active ingredient in insecticidal soap comes from the fatty acids in animal fat or vegetable oil, so it's important to use the real thing. Don't use detergents (which aren't actually soaps), dish soaps, or any products with degreasers, skin moisturizers, or synthetic chemicals. Dr. Bronner's Pure Castile Soap is usually pretty easy to find in stores, or check your local natural-foods store for other options.
3. **Pure Water:** Tap water is fine for making insecticidal soap. If you have hard water, you may want to use bottled water to prevent soap scum from building up on your plants.

To make homemade 2% insecticidal soap, mix together: 5 tablespoons soap to 1 gallon of water

Like any other home remedy, there are as many variations on this recipe as there are gardeners! You can also try:

- **Cooking Oil:** To help the solution stick a little longer, add two tablespoons of light cooking oil (such as corn, canola, olive, or safflower) per gallon of water to the mix.
- **Vinegar:** To make a spray that also targets powdery mildew, add a teaspoon of cider vinegar per gallon of water to the mix.
- **Garlic or Pepper:** To help repel chewing insects, add a teaspoon of ground red pepper and/or garlic per gallon of water to the mix.

In conclusion, dealing with garden pests in Hawaii may seem like a daunting task, but it doesn't have to be. By using natural solutions and implementing preventative measures, you can minimize the damage caused by common garden pests. And, if you're looking for effective and organic insecticides to help control pests in your garden, be sure to check out the selection available at our nursery. We believe in providing environmentally-friendly solutions to our customers and would love to help you keep your garden healthy and thriving.

So, get out there and start gardening, knowing that you have the knowledge, tools, and organic insecticides to keep those pesky critters at bay. Happy gardening!