

what's buggin' ya?

AN EDUCATIONAL NEWSLETTER ON MANAGING INSECTS IN OUR ENVIRONMENT

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FALL 2007

With fall comes fall gardens, and where there are gardens there will always be insects. This season's IPM newsletter will cover all the insects you should look out for in your garden. Read on to learn more. Molly Keck

garden caterpillars

Two very common fall garden caterpillar pests are cabbage loopers and tomato hornworms.

Cabbage loopers are small green caterpillars that will feed on nearly every plant in your garden. Their favorite foods are cabbage (cole crops) and lettuce, but you will find cabbage loopers in your garden even if you aren't planting those vegetables.

Cabbage loopers can blend into their surroundings extremely well, making it very hard to spot them. What you will see is their damage—holes in the leaves of plants.

CABBAGE LOOPER AND MOTH



Tomato hornworms are very large caterpillars that will later become sphinx or “hummingbird” moths. They prefer tomatoes, but will also be found on various other plants. Tomato hornworms also make holes in plants or chew along the leaf margin. It isn't unusual to see a 12 inch tall transplant completely stripped of its leaves overnight!



TOMATO HORNWORM

Caterpillars can be hard to treat, because they are hard to find. Bacillus thuringiensis (Bt) and spinosad are two great organic options for treating caterpillars. Spray on the plants where you either see caterpillars or damaged leaves. Non-organic options include products containing the active ingredient, carbaryl.



TOMATO HORNWORM PUPA
KSU ENTOMOLOGY

In general, liquid formulations of pesticides are more effective against caterpillars than powders. Remember to always read the label of all products (including organics) to make sure they can be used in the garden.



SPHINX MOTH

general IPM tactics for Your Garden

Integrated pest management is a practice of pest management that uses every available and relevant control tactic to keep pests at tolerable levels. Those tactics include cultural, physical, biological, and chemical control, in that order.

CULTURAL CONTROL includes sanitation methods – removing weeds and keeping gardens clear of excess ground cover. Many insects utilize weeds as part of their life cycle and excess ground cover provides more places for harmful insects to hide.

Cultural control also means choosing only healthy plants for the garden and removing damaged or unhealthy plants. Insects love stressed plants, therefore proper fertilization and watering is very important.

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INSECTS & INTEGRATED PEST MANAGEMENT

PHYSICAL CONTROL is any way to exclude pests or physically remove them. This includes hand picking insects off or using barriers. Row-covered mesh provides an excellent barrier that keeps pests out while still allowing light and moisture in. If you have problems with soil-dwelling insects or cutworms, take a soda bottle or coffee can and cut out the bottom and top. Then place the can in the ground around a newly planted transplant. Make sure the can is pushed at least 3 inches into the soil.

Sharp blasts of water from a hose or high pressure sprayer will also remove many stationary or slow moving pests such as aphids, mealybugs and scales.

BIOLOGICAL CONTROL means to use beneficial insects or animals to control harmful pests. This can be accomplished

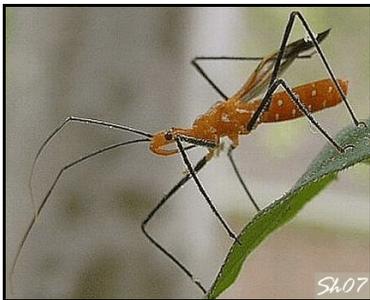
by introducing beneficial organisms or enhancing them by reducing pesticide use. Some common beneficials in the garden include ladybugs, preying mantids, spiders, ground beetles, and wasps. For more information on beneficial insects contact the Bexar County Extension office at **210-467-6575**.

CHEMICAL CONTROL If you have used all the other control techniques and still have a pest problem that must be controlled it is now probably time to use pesticides. Remember, a pesticide is any product that controls, repels or mitigates a pest. Organic products are pesticides too! Use products that are low impact, microbial, botanicals, baits, and insecticidal soaps and oils. These pose minimal risk to both humans and beneficial organisms. For information on low impact products for your specific pest problem, contact the Extension office.



leaf-footed bugs

Leaf-footed bugs are sap sucking insects that can damage numerous plants including tomatoes and cucumbers. A wet summer and abundance of adults during the summer may indicate them as a potential pest this fall.



As immatures, leaf-footed bugs can be easily confused with assassin bugs. Immatures are red in color with long black legs. As they mature they will gain more brown coloration.

Adults are brown, hard bodied with long legs. Their hind legs are flattened and resemble leaves—hence their common name. Immatures will also have flattened hind legs, but they are not as pronounced.

Leaf-footed bugs are easiest to control when they are immatures. Their body is softer and pesticides can penetrate easier. As adults they are more mobile and their

hard bodies prevent the effect of pesticides. To control leaf-footed bugs, look for products containing carbaryl, permethrin, and other pyrethroids, and malathion. Read the label carefully to make sure you apply at the correct time during harvesting season.

If you experience leaf-footed bugs regularly, consider using a systemic. Systemics are taken up through the root of the plant and sap-sucking insects are greatly affected. Again read the label as these products must generally be used early in the planting season.



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