



From the...
Bedford Extension Master Gardener
HELP DESK

July 2013

*A monthly newsletter column for Bedford Extension Master Gardeners.
Now available at the BAMGA website for interested gardeners, like you!*

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Now we come to the heart of the growing season. July usually brings us days that can be uncomfortably warm and humid. Average daytime temperatures reach into the mid-80's (86° F.) while average overnight temperatures drop only to the mid-60's (66°F.). [1] Weather like this is just perfect for plant diseases and unhelpful insects!

I will share a quick story which illustrates my observation. Earlier in June I planted a group of herbs in a largish pot. Remembering that most herbs like dry and somewhat poor soil/growing conditions, before planting my little group I amended the planting media appropriately. All the plants seemed to be healthy and growing nicely. That is, until the recent "rain every three days" started up. The current health of my group of herbs (as of June 21) is that they are not as happy. The lower leaves of my poor tarragon plant are turning slimy from the moisture - at least I think that is the cause. Does anybody know where I can find a 'plant umbrella'?

On the other hand, the celery looper, absolutely LOVES munching on my African Basil plant that is in the same pot as the tarragon. A Thank You goes out to Master Gardener Jim for identifying the caterpillar. (We may learn more about it in a future newsletter.)

On to the Help Desk questions we go. The following are questions that have come into the VCE Office MG Help Desk within the past few years. If the answers do not come to you immediately, please continue reading!

QUESTIONS:

1. The caller wanted to know why her tomatoes were not growing well. Adhering to the philosophy of 'always question a questioner' more information was elicited from the caller. The caller stated that the tomatoes were within 50 feet of her walnut (Juglans) tree.
2. The caller wanted to know what was wrong with her Heirloom Pepper plants. She stated they had lots of flowers but no fruit.
3. The caller stated he had bagworms on several of his trees and wanted to know how to control them.

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ANSWERS:

1. The caller did not specify which type of Juglans the tree was. Regardless of whether it was a Black Walnut *Juglans nigra* or one of the other ones, the tomatoes were most likely being affected by the Juglone from the walnut tree. Walnut trees produce a non-toxic, colorless, chemical called hydrojuglone. Hydrojuglone is found in leaves, stems, fruit hulls, inner bark and roots. When exposed to air or soil compounds, hydrojuglone is oxidized into the allelochemical juglone, which is highly toxic.

Juglone is exuded from all parts of the walnut tree. Juglone can affect other plants either through root contact, leakage or decay in the soil, falling and decaying leaves, or when rain leaches and drips juglone from leaves and branches onto plants below. Plants located beneath the canopy of walnut trees are most at risk because juglone from the roots and fallen leaves accumulates there. [2]

The recommendation given to the client was to move the tomato plants to a different location more suited to their needs. Otherwise, they probably would not survive.

2. The probable cause was that the flowers were not being pollinated. The client was advised to plant plants which would encourage bees to come to their area. Additional suggestions included either keeping bees or finding a bee keeper in their area that would place a hive on their property.

3. Lepidoptera: Psychidae, *Thyridopteryx ephemeraeformis* primarily attack juniper, arborvitae, other cedars, pine, hemlock, spruce, Chinese elm, and honey locust. In addition they can be found also on crabapple, maple, sycamore, box elder, willow, linden, poplar, and many others.

Overwintering eggs begin hatching in early June. The tiny larva immediately begins to construct a tiny silken bag around itself and initiates feeding. Larvae and bags remain small (less than 1/4" long) for a few weeks and are not easily discovered. Feeding and molting continues until August when pupation occurs. Adults are active in late August and September. Only males leave the bag to mate with females which remain in the bags to lay overwintering eggs. Prior to molting and pupation, larvae attach the bag by silk strands to twigs and close the opening, protecting the larva.

It is important to treat during bagworms in mid-June. Small larvae are more susceptible to insecticides. Larger larvae and molting larvae are not easily killed. Insecticides with some residual are preferred. Picking off and burning bags from fall until spring will reduce

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populations, but is tedious. The presence of bags during winter is a good indication of which plants need to be treated the following year. [3] There are several pesticides approved for treating bagworms. [4] Clients should always read the pesticide label and adhere to the precautionary warnings.

REFERENCES:

- [1] <http://www.weather.com/weather/monthly/24523?month=1> accessed June 21, 2013
- [2] “Trees for Problem Landscape Sites -- The Walnut Tree: Allelopathic Effects and Tolerant Plants” <http://pubs.ext.vt.edu/430/430-021/430-021.html>
- [3] “Bagworms” <http://pubs.ext.vt.edu/2808/2808-1008/2808-1008.html>
- [4] 2013 VCE Pest Management Guide, page 4–38
http://pubs.ext.vt.edu/456/456-018/Section_4_Home_Ornamentals-3.pdf,



The answers provided herein were based on specific situations and growing conditions. These recommendations may or may not be appropriate for all circumstances. For specific recommendations for your particular situation please contact your local Cooperative Extension Office.

Bedford County Extension Office: (540) 586-7675 / Email: Help Desk @ BedfordMG@vt.edu

Websites: www.BedfordAreaMasterGardeners.org and <http://offices.ext.vt.edu/bedford/>



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