

# The Volunteer Gardener

St. Joseph County Master Gardener

June—July 2010



## Reports of European Chafer Beetle

Howard Russell, MSU Diagnostic Services

Two people called me this week to report large numbers of these light brown beetles swarming in their trees at dusk. European chafers emerge from the ground in the early evening and gather up in huge mating flights. The flights occur at sunset and often times the swarms concentrate around a tree or shrub.

A few years ago Capital City Airport reported the beetles were swarming around and on the tails of jet aircraft. Both recent callers said they thought the beetles were honeybees because of the large numbers involved and the loud buzzing sound they made. The swarming behavior doesn't last too long, 30 minutes to an hour tops, then the beetles settle down on the foliage where mating takes place. The adult beetles are reported to just nibble on foliage or not feed at all. However, one caller this week said the beetles were eating the needles of her pine tree and stripping the bark off the trunk.

Females burrow into the soil a few inches the day after mating and lay their eggs singly in earthen cells. The eggs hatch in two to three weeks. The tiny white grubs immediately begin to feed on grass roots and continue to do so, undergoing two molts, until the freezing ground drives them deeper into soil away from the root zone. In the spring, as the soil warms, the grubs follow the retreating frost back to the surface where they commence feeding on the grass roots. Larval development is completed in late May and the grubs pupate to transform into adult beetles and the life cycle begins again.

The European chafer is the most destructive turf pest in Michigan. It occurs throughout the state including the Upper Peninsula. Those with a history of turf damage by these white grubs should consider treating their lawns with products containing imidacloprid or halfenozide around the first of July.



The European chafer adult is small, light brown, oval-shaped beetle about a half-inch long with very spiny legs.

## Tomato Bacterial Wilt

Bacterial wilt, also known as southern bacterial wilt, is characterized by rapid collapse and death of the entire plant. A cut through the stem near the ground reveals a darkened, water-soaked center (pith and vascular tissue). In later stages, the stem may become hollow.

Bacterial wilt is most serious in moist, warm, high pH, low-fertility soils. Severity is increased by root injury from cultivation, nematodes or any other physical means.

The casual organism, *Ralstonia (Pseudomonas) solanacearum*, can persist on many weeds or even in fallow soil. Spread into uninfested fields can occur through transplants, tools or drainage water from adjacent infested land.

Control:

Few resistant varieties are available. Crop rotation is of minimal value because the survival ability of the organism. Other control practices include:

1. Avoid sites in which the disease has been a problem in the past.
2. Remove and destroy infected plants promptly.
3. Control nematodes, avoid root injury, maintain proper pH and nitrogen levels, and avoid hot, wet soils if bacterial wilt has been a problem.
4. Fumigation with chloropicrin will provide some control.

## Japanese Beetles

Japanese beetles are emerging and soon will be devouring our favorite trees and shrubs. Some folks may need to protect their trees and shrubs, particularly roses, linden, grapes and ornamental fruit trees. Cyfluthrin and bifenthrin are still the products of choice to control Japanese beetle on ornamentals. On fruit trees and grapes, carbaryl (Sevin) at the highest labeled rate is your only hope. It is important to spray when the first beetles show up because these will emit a congregation pheromone that draws more beetles to the tree or shrub. Japanese beetle traps are another option for control. However, these traps should be placed far away from the plants you want to protect as they probably attract more beetles to the area than they catch. Giving the traps to neighbors as Christmas presents is one way to enjoy the benefits of the traps but at the same time minimizing the risks.

## July Garden Calendar

- ✓ Thin seedlings as seed package directs.
- ✓ Water during dry conditions.
- ✓ Harvest crops regularly to encourage further production.
- ✓ Cover potato tubers, carrot shoulders and onion bulbs with soil to prevent development of green color. Soil or mulch may be used to keep them covered.
- ✓ After harvesting central heads of broccoli, allow the plants to produce side heads for an extended harvest.
- ✓ Garden crops can be given nitrogen fertilizer at the beginning of July. Wait until tomatoes, peppers and eggplant have set some fruit before you fertilize them. Work fertilizer into soil a few inches away from the plants, then water. Do not allow the fertilizer to touch the plant stems.
- ✓ Continue to harvest frequently as crops mature.
- ✓ Keep the garden weeded.



## Plants That Repel Mosquitoes

### Cultivated Plants:

Citronella Grass (*Cymbopogon nardus*)  
Catnip (*Nepeta cataria*)  
Peppermint (*Mentha piperita*)  
Rosemary (*Rosmarinus officinalis*)  
Marigolds (*Tagetes spp.*)  
Lemon balm (*Melissa officinalis*)  
Garlic (*Allium sativum*)  
Clove (*Syzyglum aromaticum*)  
Eucalyptus (*Eucalyptus spp.*)  
Tea tree (*Melaleuca alternifolia*)  
Lavendar (*Lavandula angustifolia*)

### Wild Plants:

Vanilla leaf (*Achlys triphylla*)  
Sagebrush, Wormwood, and Mugwort (*Artemisia spp.*)  
Pineapple weed (*Matricaria matricarioides*)  
Nodding onion (*Allium cernuum*)  
Wild bergamot (*Mondarda fistulosa*)  
Snowbush (*Ceanothus velutinus*)  
Sweetfern (*Comptonia peregrina*)  
Cedars (*Thuja spp.*)



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Name: \_\_\_\_\_

Address: \_\_\_\_\_

Score: \_\_\_\_\_

This June-July 2010 Continuing Education Test is one of a series of CE tests presented by the *MG Volunteer Gardener*. Each test, when completed and passed, will provide one hour of MSU-sponsored horticultural training credit. A passing grade is 80% correct. (Be sure to put your name on your test prior to sending it in.) Answers can be found in the MG Manual/Supplemental Manual and in this newsletter.

Please submit your test to: MSU Extension, Master Gardener Program, 612 East Main St., Centreville, MI 49032

Email: towles@msu.edu Fax: 269-467-5641

1. Citronella grass is a wild plant.  
T  
F
2. Bacterial wilt in tomatoes is most serious in what type of soil? Circle all that apply.
  - a. Dry, sandy loam
  - b. Low pH, over fertilized
  - c. High pH, low fertility
  - d. Moist, warm
3. What are the products of choice to control Japanese Beetles on ornamentals?
  - a. Congregation pheromone
  - b. Carbaryl
  - c. Cyfluthrin and bifenthrin
  - d. Pheromone traps at your neighbors house
4. The dangerous part of the Flax (*Linum spp.*) is
  - a. The entire plant
  - b. The leaves
  - c. The stem
  - d. The seeds
5. A pheromone trap is used to catch male insects using a synthetic sex attractant. For gypsy moths, Disparlure is used. Such traps are considered monitoring devices, not controls.  
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6. Female European Chafer beetle burrow into the soil 8 days after mating to lay their eggs.  
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