

Green Thumb Prints

Newsletter of the Hancock County
Master Gardener Volunteers



July 2010

*Gardening is our Passion
Education is our Purpose*



WHAT'S INSIDE THIS ISSUE:

- Using Texture in Flower Gardens
- Acceptable Blemishes on Fruits & Vegetables
- Late Blight Surrounds Ohio
- Training, and More

Coordinator's Corner

by Nancy Kronberg

Training class dates have been set for fall. Classes begin Tuesday evening September 14 and end November 2. There are also 4 Saturday mornings included. Flyers are set to be distributed. They will be available at the July meeting and should be posted on our web site soon.

Saturday, July 31 Patty Woodard and I are doing a session on worm composting. This is part of an intergenerational program called "From Wii to We." We could use at least one more helper so if anyone is available, let me know.

It's time to start thinking about the County Fair. We will be staffing the booth for at least three 2 hour blocks each day to answer questions or do demonstrations. Sign up will begin at the July meeting. Passes will be provided for those who need them.

Cathy Zernechel needs volunteers to staff the workstation for July 12, 19, & 26. Contact her if you can help.

Barb Brahm and I are hosting a Food Preservation Class on Thursday, July 29. There is a morning session and evening session. My part is choosing varieties of fruits and veggies that are best for preserving. If anyone can assist with that project, I would be most grateful.

We have a "new" computer" in the workstation. It is much faster than the temporary one. Should make workstation searches much quicker.

I am happy to report that we have sold 46 of the 50 rain barrels. After announcing a special free delivery option on phone club, we were able to sell 14 barrels! Thanks to my friend Bob Lauck for helping with the construction and delivery. We will be sharing the proceeds with the park district.

Nancy

Dates to Remember!

Mondays: 9:00-noon, workstation. **Need volunteers! See page 10.**

Fridays: 9:00, demonstration garden.

Thursday, July 8: MGV Monthly Meeting, Extension Office, 7:00 PM.

Sunday, July 18: Franklin MGV Vegetable pest & succession planting seminar. See Page 2 for info.

Wednesday, July 21: WFIN Phone Club, 9:00-11:00, Bill Lanning and Dick Schweitzer.

Upcoming Events

August 7: Gateway Garden Jubilee. See page 2.

Thursday, August 12: MGV meeting—Member Garden Tour or Bug Walk

Wednesday, September 1—Monday, Sept. 8: Hancock County Fair

October 14: 3rd Grade Days at VB State Park.

October 21: NW Ohio Urban Forestry Seminar,

**GATEWAY GARDEN JUBILEE
DEMONSTRATIONS**
August 7, 2010

9:30

*"Japanese Maples – So You Thought
There Were Only 3 Varieties"*

By Dave Dannaher
Dannaher Landscaping

10:15

"Square Foot Gardening"

By Cassie Holderman D'Aula
Square Foot Instructor
Licking County Master Gardener

11:00

*"Managing Household Hazardous Waste
– What to Do with Unwanted Chemi-
cals"*

By Steve Schlather
Clark County Waste Management

11:45

"Plant Uses from Days Gone By"

By Peggie Elsnau and Barb Hall
Master Gardeners of Clark County

12:30

"The Wonder of Weeds"

By Tom Davidson



Saturday August 7, 2010

9:00 a.m. - 1:00 p.m.
RAIN OR SHINE!

PERENNIAL & SENSORY GARDENS	ORNAMENTAL FIELD TRIALS 200+ Varieties of Annuals	CHILDREN'S GARDEN & ACTIVITIES
OSU REGIONAL TURF PLOT DEMO	BUTTERFLY, HERB, & VEGETABLE GARDENS	PHENOLOGY & KNOT GARDENS
ARBOR, VINE, & CONTAINER GARDENS	SOUTHSIDE TEENS' FARM MARKET PRODUCE & CRAFTS	GARDEN TOURS & DEMONSTRATIONS
LOCAL ARTISANS & MERCHANTS	SILENT AUCTION "GREEN THUMB" CONTEST	DERMA SCAN SKIN SCREENING
FREE FOOD & DOOR PRIZES	LIVE MUSIC BY LOOSELY STRUNG BAND	CC COMBINED HEALTH DISTRICT DEMOS

GATEWAY LEARNING GARDENS
Clark County Agricultural Agencies Bldg.
PrimeOhio Corporate Park
4400 Gateway Boulevard
Springfield, Ohio 45502
937 328-4607 • <http://clark.osu.edu>

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Franklin County Master Gardener Vegetable Garden Fete
Sunday, July 18 at 12:00—1:30 PM

Topic: Backyard vegetable pests and succession planting

Location: Franklin County Master Gardener's plot at Ohio State University's Waterman Agriculture and Natural Resources Laboratory, 2490 Carmack Road. The Waterman lab lies just west of the Ohio State campus; enter at the farm's Kenny Road entrance, a half-mile north of Lane Avenue.

Sponsors: Ohio State University Extension and the university's Ohio Agricultural Research and Development Center (OARDC)

Celeste Welty, OSU Extension entomologist, will begin the day with a hands-on talk and garden tour on backyard vegetable insect pests. Welty, who also is a scientist with OARDC, has been a popular presenter at previous Master Gardener events, offering backyard gardeners valuable information they can take home and use.

At about 12:45 p.m., Franklin County Master Gardeners will take the lead on a session about "succession vegetable planting," involving continual planting and harvesting throughout the season. This form of gardening helps you get the most from your space. Additional topics will be addressed at a Master Gardeners' final summer program on August 7.

Using Texture in Flower Gardens

In addition to color and plant shape, use texture to increase the aesthetic appeal of your plantings. Texture describes the surface quality of an object that can be seen or felt. When designing plantings, it is this visual texture (as opposed to the tactile experience) that we are most concerned about. Plant textures range from **fine to medium to coarse**. (Coarse is often called bold.) Most plants are medium textured. But using fine- and coarse-textured plants purposefully adds interest to plantings.

Fine-textured plants usually have **small leaves** and/or blossoms. They have a light and airy feel and create an illusion of filling space. They are relaxed and undemanding, and tend to recede into the background. They can make small spaces seem bigger. Fine textures accentuate the form and color of other plants. **Think baby's breath.**

Other common fine-textured plants include honey locust, asparagus, lavender, maidenhair fern, love-in-a-mist, dill, fennel, wild bleeding heart, albizia, tarragon, spirea, yew, and Japanese barberry.

Coarse-textured plants usually have **large leaves** and/or blossoms. They are exciting, in-your-face attention grabbers. They give a garden a heavy, tropical feel. Used in masses, they make spaces feel smaller. Coarse textures compete for visual attention with the form and color of other plants. **Think hostas.** (Particularly the uniformly colored, large-leaved cultivars.) Other common coarse-textured plants include rhubarb, comfrey, catalpa, Dutchman's pipe, many rhododendrons, castor beans, bugloss, bananas, saucer magnolia, and cannas.

Texture is actually **determined by light and shadow**. Fine-textured plants reflect many small patches of light and shadow. Coarse-textured plants reflect fewer, larger blotches. You could paint a picture of coarse-textured plants with a broad brush, while fine-textured plants would require a delicate one.

How we view texture also **depends on distance**. Up close, most needle-leaved trees have a very fine texture. But step back to the other side of the yard and all those needles coalesce into a coarsely textured form.

The plant's branching habit also affects its texture. Small-leaved plants that have a tight and twiggy branching habit (such as Japanese yew and Japanese barberry) produce a dense effect, making the plant look more solid than it

(Continued on page 4)



Fine-textured plants usually have small leaves and blossoms and give a light, airy feeling.



Coarse-textured plants usually have large leaves, and give a heavy, tropical feel.



Using a variety of textures, colors, and forms makes ornamental plantings more interesting.



Coarse-textured leaves make a good background for fine-textured flowers.

Using Texture in Flower Gardens—Continued

(Continued from page 3)

really is. Other small-leaved plants that have an open branching habit (such as abelia, honey locust, and royal fern) provide a light and airy feel.

Textures can **vary through the season**. In winter, the bark and branches of woody plants become the dominant texture-providers. Leafless shrubs with many slender twigs have a fine texture. Shrubs with fewer, stouter stems appear coarse- or medium-textured. In early spring when there is little foliage, bulb blossoms may set the texture tone. But in summer, **texture is largely determined by foliage**.



When ornamental grasses sway in the breeze, they form constantly changing patterns of light and shade, and texture than they do at rest.

Beyond leaf size, many other characteristics affect the overall textural impression of a plant. All other things being equal, each of the following contribute to giving a plant **finer texture**:

- Compound, dissected, or lobed leaves.
- Variegated leaves.
- Contrasting light underside of leaves.
- Ridged or shiny leaves.
- Regular placement of leaves along the branch or stem.
- Flower or fruit breaking up the regular pattern of leaves.

Motion also contributes to a finer texture when wind causes the patterns of light and shade to constantly change. Plants with leaves with long, flexible petioles and ornamental grasses that sway in the breeze provide a finer texture in motion than they do at rest.

A planting with all medium-textured plants can feel lackluster. Still, adding too much textural contrast can make a garden feel busy. If fine-textured plants dominate, a planting can lack focus without some specimen plants to catch your eye. On the other hand, too many coarse-textured plants can look awkward and unwieldy. They do not look as bold without some medium- or fine-textured plants for contrast.

Finally, as with color, there is no right or wrong with texture. Just being aware of this quality can help you design plantings that are more pleasing.

Source: Cornell University, Home Gardening

Save the Date!!! October 21st NW Ohio Urban Forestry Seminar

This annual educational event is held every fall. This year's seminar is at the new Lodge in Strawberry Park, Holland, Ohio. This is a beautiful facility and you'll have a unique opportunity to see some real life applications of Oak Wilt control efforts. This year's speakers include Alan Siewert (Gold Standard of Urban Forestry) and Lisa Bowers (Bacterial Leaf Scorch,) Amy Stone & Terry Nachtrab (Holland's Oak Wilt Success,) Dave Bienemann (Bowling Green's Ecosystem Inventory,) and more! Registrations will be mailed out in late August, so mark your calendars now. Thanks to the Village of Holland and TMACOG for helping with this event.

Sad news: Carroll County Extension office closes.

OSU Extension has announced the closing of the Carroll County Extension office. Carroll County was one of four Ohio counties that had Extension levies on the May 4 ballot. With the defeat of the levy, Carroll County does not have the ability to generate local matching funds needed to keep the Extension office open.

Two other counties -- Jackson and Highland -- also had Extension levies that were not successful in the May primary election. Jackson County's advisory committee also plans to seek funds again on the November ballot. Until then, its local match will be funded with contributions from local donors.

Highland County Extension is seeking funding from other sources, including the county government general fund, Extension's preferred method of local funding. Highland County has minimal funding available to operate its Extension office until the end of the calendar year.

Carroll County's Extension office closed effective June 11, ending all agricultural, natural resource, community development and family and consumer science programming and staffing. OSU Extension will work with the local 4-H educator to continue the Carroll County 4-H program until the close of the Ohio State Fair on August 8. Many of their 4-H members have invested time and money into their 4-H projects and OSU wants to support these young people and allow them to finish what they have started by participating in their county fair and the Ohio State Fair. The real work in 4-H begins long before the fair -- and the true essence of 4-H is the life skills, leadership, and citizenship development that occurs in these youth. Extension reaches more than 330,000 Ohio youth each year through its 4-H Youth Development program. Once the Ohio State Fair is over, the 4-H program and 4-H membership in Carroll County will cease to exist.

Carroll County Extension's advisory committee plans to seek funding again via a levy request on the November ballot. If this ballot issue is successful, OSU Extension will be able to reopen the office and restore services once the revenue generated via the levy is collected. There are no local funds from other sources available to help support the office at this time.

Here in Hancock County, we hope to continue the Extension Office's positive involvement and support with the community and not be in a position of having to close.

Taken from article by: Suzanne Steel, OSU Communications & Technology

Cleaning up the Oil Spill

Below is an article from the OSU News & Media Relations. Could this be a remedy? Is there hope for cleaning up such a large scale oil spill?

As attention has been drawn toward the clean-up efforts in the Gulf region, an internationally known wetlands expert at Ohio State University suggests letting nature -- mostly in the form of microbes -- take its course.

Bill Mitsch, director of OSU's Wilma H. Schiermeier Olentangy River Wetland Research Park and editor-in-chief of the international journal Ecological Engineering, states that using surfactants and detergents in the water "is just the wrong thing to do. This is not like cleaning up your kitchen." The solvents already used in the Gulf may be doing more harm than good, he said. "You have to let nature, ultimately, clean it up."

Mitsch, who is also a scientist with the Ohio Agricultural Research and Development Center and a Distinguished Professor of Environment and Natural Resources, said microbes -- those naturally found in the water -- will eventually break down the oil. "Now, there are countless people that are running around with little bottles of microbes saying, 'Give me a big government contract and I will come down and solve the problem.' The fact of the matter is the microbes are there. They will bump into the oil and will start consuming it."

Mitsch, who has served for years as a member of the Louisiana Coastal Area project's National Technical Review Committee and currently has a collaborative research project with Louisiana State University investigating nutrient retention and greenhouse gases in wetlands, says wetlands are touted for their ability to clean up water but the oil spill is creating the "grand challenge of all time for these coastal wetlands." He states, "I see the oil being there for a long time; I see the oil eventually degrading. I do know wetlands can take hits and recover, we've seen that time and time again."

Mitsch also sees another developing threat to the area's wetlands: a proposal to build levies across Louisiana's coast -- an idea first proposed after Hurricane Katrina's storm surge drowned the area, which has resurfaced as a possible way to protect the coast from the oil spill. Such levies would be devastating for the wetlands, wildlife and ecosystems of the Louisiana Delta, Mitsch says. "To me, that could be the biggest disaster of all."

Bill Mitsch's commentary is available on video at <http://www.osu.edu/watch/45zXrOyqIGe50>.

Is every blemish on fruits and vegetables unacceptable?

Blemishes on fruits and vegetables result from a variety of causes; some imperfections are harmful but many are not. This article identifies causal factors that result in blemishes, describes the injury they cause and determines if the damage is too severe for consumption of the fruit or vegetable. Methods will be covered that can help reduce damage. By learning to identify cosmetic blemishes consumers can greatly reduce waste and frequently obtain good produce at a lower cost.

Preharvest factors: genetics, natural damage, nutrition and plant health in the field.

Selection of new fruit and vegetable varieties is strongly affected by the market's desire for perfect fruit (large, brightly colored fruit with symmetrical appearance). Discoloration or non-uniformity sometimes results in the downgrading of these commodities. For example, the presence of russet, a brownish roughened area on the skin of apples does not negatively influence eating quality. Russet on apples can be genetic, as well as induced by environmental factors such as mild frost damage. In the past, many popular apple varieties were completely covered with russet. But today, fruit with noticeable russetting often does not pass US grading standards.

Many crops with pre-harvest damage from field conditions are commercially graded out before being marketed. However, some damage only affects products visually and this damage is easily cut out before eating. Examples include a cut on a potato, scarring from rubbing of fruit on branches, and tissue healing processes after surface damage such as that caused by hail or insects. If the product is soft or overripe, cosmetic damage can be a genuine safety concern, especially where infection by pathogens can cause rotting.

Inappropriate fertilization of products, resulting from excessive nitrogen or inadequate calcium applications in the field, can result in formation of necrotic lesions in the tissue. One example of this, known as bitter pit or stippen, occurs in some apple varieties as brown pitting on the skin or in the flesh. This disorder can cause major losses, and as its common name suggests, leads to off-flavor in the fruit. Moreover, bitter pit can continue to develop during storage, and presence of this type of disorder is an indication of poor storability of the crop. Disorders related to low calcium can be found in many fruits and vegetables (see Table 1).

Harvest and handling factors: Bruising and vibration damage

Bruising is the most noted concern of consumers in the marketplace. Bruising can happen anywhere in the handling chain, from harvest to purchase, but occurs most frequently during harvest. Bruising can occur as a result of impact or compression damage.

Impact damage occurs when the product is dropped some height to a hard surface. This bruising is frequently caused by commercial packing lines or by harvesters who are not appropriately trained and treat the product roughly. Compression damage occurs when a product is crushed or compressed by the weight of others on top of it. This happens

Produce:	Disorder:
Apple	Bitter pit, lenticel blotch, cork spot, lenticel breakdown, cracking, low temperature breakdown, internal breakdown, senescent breakdown, Jonathan spot, water core
Cabbage	Internal tip burn
Carrot	Cavity spot, cracking
Celery	Blackheart
Cherry	Cracking
Escarole	Brownheart, tip burn
Lettuce	Tip burn
Mango	Soft nose
Parsnip	Cavity spot
Pear	Cork spot
Pepper	Blossom-end rot
Potato	Sprout failure, tip burn
Strawberry	Leaf tip burn
Tomato	Blossom-end rot, blackseed, cracking

(Continued on page 7)

Is every blemish on fruits and vegetables unacceptable? - Continued

(Continued from page 6)

if the product is soft and inappropriate containers are used. For example, the containers may be too deep, allowing too much product weight on the bottom fruit or vegetable.

Both impact and compression bruising can cause significant damage, discolor tissues, and detract from the visual and eating quality of the commodity. Even when browning does not occur, such as in the case of bruised strawberry fruit, the damaged areas look unattractively dark.

Vibration injury occurs after harvest when the products rub against each other or the carton trays during transport. A good example of this is the dark scuff marks on the skin of pear fruit when it ripens.

Postharvest storage: Senescence, chilling injury, and ethylene gas

Blemishes can develop during storage of products for at least three major reasons. The first of these is senescence problems. Senescence is defined as the phase of plant growth after full maturity that results in tissue death. This condition typically shows up as tissue browning. More rapid than normal senescence and development of brown flesh can indicate that the nutrient composition of the product is poor. A good example is senescent breakdown of apples, a condition that is associated with low calcium in the fruit.

The second set of postharvest problems is chilling injury. Whereas most apples, stone fruit, and vegetables such as asparagus, cabbage, lettuce and onions should be stored close to 32°F to maximize storage life, many products, especially those of sub-tropical or tropical origin develop chilling injury if stored at too low of a temperature. Good examples of chilling sensitive products are cucumbers, eggplants, sweet peppers and tomatoes. These products should be stored at 45°F or above. However, they are occasionally stored with chilling insensitive products in retail markets or in the home.

Damage doesn't always occur to these products because exposure to low temperatures has to be lengthy. When damage does occur, it can be manifested as pitting of the skin, uneven ripening, loss of flavor or development of off-flavors, and higher susceptibility to decay.

A common type of chilling injury seen in supermarkets is pitting on green peppers, but usually the flavor is unaffected unless damage is severe. Additional types of injury due to chilling include skin graying on ripening bananas and failure of peaches to ripen with a juicy texture. In general, visual symptoms of chilling injury are not pronounced and are often overlooked by the consumer (see Table 2).

Table 2 -- Chilling Injury Symptoms Of Some Fruits And Vegetables

Produce	Approximate lowest safe storage temperature (°F)	Symptoms - if stored below recommended temperature
Asparagus	32	Dull, gray-green, and limp tips
Avocado	45-55	Pitting, browning of pulp and vascular strands
Banana	55	Brown streaking on skin
Beans (lima)	34-40	Rusty brown specks, spots, or areas
Beans (snap)	45	Pitting and russetting
Cucumber	45-55	Dark colored, water-soaked areas
Eggplant	45-55	Surface scald
Lemon	45-50	Pitting of flavedo, membrane staining, red blotches
Mango	40-55	Dull skin, brown areas
Melon	45-50	Pitting, surface rots
Tomato	45-55	Pitting, alternaria rots

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Is every blemish on fruits and vegetables unacceptable? - Continued

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The third type of blemish, which is perhaps the least understood in the marketplace, is associated with mixed storage of products that produce ethylene gas with products that are injured by its presence.

Ethylene is a natural plant growth regulator, produced by "climacteric fruit", such as apples, tomatoes and bananas (see Table 3). It is a colorless gas that is thought to coordinate the ripening of these fruits. Ethylene gas is also produced by tractors and other equipment with internal combustion engines and can accelerate ripening of climacteric fruit. Ethylene can have a number of deleterious effects on other products. These include faster yellowing and senescence of leafy vegetables, browning reactions such as russet spotting on lettuce leaves, development of bitterness in carrots, and sprouting of potatoes.

To avoid blemishes associated with ethylene gas, products that produce it should not be stored with low ethylene producers, which are sensitive to the gas. If this is unavoidable, one method of minimizing damage is to ensure that storage areas are well ventilated. Products such as potassium permanganate that absorb ethylene are available both for use in commercial storage and in home refrigerators.

Summary

The bottom line is that almost any blemish found on products at harvest is considered to be a grade defect in most markets. Often, these criteria have been developed solely for marketing purposes, but they also protect the consumer from products that may decay or deteriorate more rapidly than normal. The consumer who is willing to sacrifice visual appearance may learn to differentiate blemishes that are purely cosmetic from those that are unsafe to eat. Whatever the growing method, food with blemishes that result from decay, causing odor, mold, or a fermented taste, should be avoided for safety reasons.

Source: Cornell Department of Horticulture, Ecogardening

Table 3 -- Ethylene Production Classification Of Some Fruits And Vegetables

High Ethylene Producers:	Low Ethylene Producers:
Apple	Cucumber
Pear	Eggplant
Peach	Summer Squash
Watermelon	Raspberry
Avocado	Strawberry
Banana	Grape
Plum	Cherry
Tomato	Pepper
Cantaloupe	Leafy Vegetables
	Root Vegetables

Problem: My neighbor used some chemicals to clean our joint fence line. Unfortunately, in some places the chemical migrated, leaving dead spots in my lawn up to two feet from the fence. What is the best way to fix this unsightly mess? If I seed more grass, is there a waiting time in doing this?

Solution: First, you will need to find out exactly what chemical (herbicide) was used, because it will make a difference. Some non-selective herbicides, such as Roundup or Finale, last only a short while and grass can be seeded into treated areas within just a week or two following application. Other herbicides have long activity and are essentially soil sterilants that last for up to a year; these are often used to control weeds in driveways, sidewalks, paving, etc. Reseeding grass following an application of one of these products would not be useful now. See if you can determine what was applied, and read the label for length of activity and directions on reseeding grass. Reseeding would be the least expensive alternative to renovating the lawn area, but you will want to do that in the optimal seeding period, if you find that a short residual herbicide was used. Typically, seeding is done in the month of September to be successful. A more expensive alternative would be sodding the area, which can be done into early to mid-November or so. (OSU Plantfacts)

Late Blight Surrounds Ohio

Growers, Gardeners Should Prepare

Late blight was confirmed in Pennsylvania and Kentucky in late May, generating concerns that this devastating disease of tomato and potato may soon show up in Ohio farm fields and backyard gardens.

Responsible for the Irish potato famine of the 1840s, late blight has caused widespread crop damage across the United States and Canada since 1990. If left unmanaged, this disease — which is transmitted via spores — can result in complete destruction of tomato and potato plants.

It is assumed that home gardeners planted tomatoes with late blight in Kentucky and that the inoculum (spores) are not far away. Therefore, we may see it sooner in Ohio than we did last year (when it was confirmed on June 25). Late blight thrives under cool, moist conditions. Hot, dry weather suppresses the disease but it does not make it go away entirely.

Another possible source of late blight inoculum at this time of year may be volunteer potato plants that were infected last season. Volunteer potatoes should be destroyed as soon as they emerge, particularly if late blight was observed in the area last year.

In northwestern Pennsylvania, late blight was detected on locally grown greenhouse tomato transplants. Since then, the affected plants have been destroyed and the grower has adopted a fungicide spray program to manage the disease.

In Kentucky, the disease was found on tomatoes in Boone County and Lexington retail operations. The plants in both locations came from Michigan. Miller said this operation may sell tomato seedlings in Ohio, mainly in the Cincinnati and Columbus areas, but its sales are reported to be fairly limited in Ohio.

What to do?

If late blight is found in your garden, destroy plants already infected — pull out the entire plant, place it immediately in a plastic bag, and dispose of the closed bag in the garbage. Do not put the infected plants on a compost pile or in a composter, or leave them lying around. Live plant tissues serve as a source of inoculum, and uprooted plants may support active spores of the pathogen for some time.

Healthy-looking plants should be protected with a fungicide. Conventional gardeners can use fungicides containing chlorothalanyl or copper; several brands are available in garden centers and other retail outlets. Organic gardeners can use copper-based fungicides; several OMRI (Organic Materials Review Institute)-approved copper-based fungicides and formulations are available.



Close-up of underside of lesion showing cottony, white mold growth of the late blight fungus on potato leaf.



Tomato fruit with late blight has large, firm, brown, leathery appearing lesions and may show a cottony, white mold growth.

What to look for?

Under cool, moist conditions, late blight lesions may appear on leaves within three to five days of infection, followed by white mold growth soon after. Spores formed on the mold are spread readily by irrigation, rain and equipment. These spores can also be easily dislodged by wind and rain and can be blown into neighboring gardens or fields within five to 10 miles or more, beginning another cycle of disease.

Late blight appears on potato or tomato leaves as pale-green, water-soaked spots, often beginning at leaf tips or edges. The circular or irregular leaf lesions are often surrounded by a pale yellowish-green border that merges with healthy tissue. Lesions enlarge rapidly and turn dark brown to purplish-black.

During periods of high humidity and leaf wetness, a cottony, white mold growth is usually visible on lower leaf surfaces at the edges of lesions. In dry weather, infected leaf tissues quickly dry up and the white mold growth disappears. Infected areas on stems appear brown to black, and entire vines may be killed in a short time when moist weather persists.

On potato tubers, late blight appears as a shallow, coppery-brown, dry rot that spreads irregularly from the surface through the outer 1/8-1/2 inch or more of tissue. On tuber surfaces, lesions appear brown, dry and sunken, while infected tissues immediately beneath the skin appear granular and tan to copper-brown.

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Late Blight—Continued

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Late blight can also develop on green tomato fruit, resulting in large, firm, brown, leathery-appearing lesions, often concentrated on the sides or upper fruit surfaces. If conditions remain moist, abundant white mold growth will develop on the lesions and secondary soft-rot bacteria may follow, resulting in a slimy, wet rot of the entire fruit.



Potato tuber tissues infected with late blight are firm and appear tan to copper-brown with a granular texture.



Irregular, purplish-black late blight lesions on leaves of potato.

Source: Sally Miller, Plant Pathology, OSU Extension & OARDC

Original Writer: Mauricio Espinoza, OSU Extension,
Photos: HYG-3102-95

July Workstation Schedule

- July 5: **Office Closed!**
- July 12: **Volunteers needed!!!**
- July 19: **Please contact Cathy Z**
- July 26: **if you can work**

Condolences to Kenn Trout whose father passed away recently.

Get well wishes to Anita Lanning.



Master Gardener
Ohio State University Extension Volunteer

The Master Gardener *Green Thumb Prints* is a publication of the Hancock County Extension Office, 7868 Hancock County Road 140, Findlay, OH, 45840, 419-422-3851. The Master Gardener Coordinator is Nancy Kronberg.

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Keith L. Smith, Ph.D., Associate Vice President for Agricultural Administration and Director, Ohio State University Extension TDD No. 800-589-8292 (Ohio only) or 614-292-1868

Thank you!

Thanks to Tracey Pierce for hosting this year's MGV picnic. Unfortunately not many members were able to attend. Maybe we should go back to August in 2011.

Not All Roses are good: Multiflora Rose

Multiflora rose may be used by licensed nurseries as rootstocks for other rose species. To use this plant for any other reason, a special permit is needed from the Ohio Department of Agriculture. Multiflora rose is a thorny and invasive woody plant. It is difficult to eliminate once established. Note: Multiflora rose can be distinguished from other roses by the presence of fringe-like stipules at the leaf bases.



Multiflora rose was introduced to the U.S. in the 1950s as wildlife cover and was also marketed as a "living fence." Since then it has become a thorny problem in pastures, fields and other open areas.