

Green Thumb Prints

Newsletter of the Hancock County
Master Gardener Volunteers



September 2010

*Gardening is our Passion
Education is our Purpose*



WHAT'S INSIDE THIS ISSUE:

- Dreams & Reality II
- September Things-To-Do
- Managing Downy Mildew
- Summer's Surprise-by Bob Campbell
- Pictures from Curtis Young's Bug Walk

Dates to Remember!

Mondays: 9:00-noon, workstation. See page 4

Fridays: 9:00, demonstration garden.

September 1—6: Hancock County Fair

Thursday, September 9: MGV Monthly Meeting,
Extension Office, 7:00 PM.

Tuesday, September 14: MGV classes begin.
5:30-9:00pm Extension Office

Wednesday, September 15: WFIN Phone Club,
9:00-11:00, Nancy and Marilyn

Upcoming Events

October 1-2: MGV State Conference.

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

October 21: NW Ohio Urban Forestry Seminar,

Coordinator's Corner

by Nancy Kronberg

Think January and maybe this heat won't seem so bad! Looks like the weekend at the fair should be really nice. Wednesday - Friday are going to be scorches (again). Be sure to bring along water.

Many thanks to everyone who has volunteered to work at the fair. I still need volunteers for the 11 am - 1 pm and 2 pm - 4 pm time slots on Monday. Please let me know if you can work. Remember, your admission price will be reimbursed.

Sandy Reinhardt, Marilyn Beltz, and I designed and set up the booth. We went simple this year. Extra handouts can be found beneath the back tables. There will also be a booklet with the names of the plants that are on display. Aprons that can be worn are also under the back tables.

Thanks to Tracey Pierce for constructing a second quiz box. She did tree leaves. The photos and answers are mounted with Velcro strips and can be easily replaced with other items such as weeds, grasses, parts of plants, etc.

MGV training classes will begin Tuesday, September 14. There will be around 15 class members. Applications are still being taken until Friday, September 3rd. Keep recruiting!

Committees will be set up at the MGV meeting on Thursday, September 9. Watch for e-mails in case I need help prior to the meeting.

Back to organizing the training classes!

Nancy

SEPTEMBER THINGS-TO-DO

Patching bare spots in the lawn, planting garlic, and rooting flower cuttings are some of the gardening activities for this month.

Early fall is a good time to patch bare spots in your lawn -- the cooler temperatures encourage good germination and root growth. Weeds aren't germinating then either to compete. Prepare the area by raking thoroughly, loosening the topsoil if it is compacted, then adding a thin layer of compost or topsoil. Cover newly seeded areas with row covers or a light scattering of straw to keep birds from eating the seed, and keep it well watered.

As long as lawns are growing, keep mowing. With the cooler days later in the fall, grass will remain vigorous, especially if there is rain. As during the summer, don't mow when grass is wet, if possible. This ensures a better cut, avoids clumps of wet grass, and is easier on your mower. The end of this month, or early next, with your expected last mowing, mow slightly lower. This avoids tall grass over winter, which mats down and can lead to disease in spring.

Later this month and into next is garlic planting time. Don't plant garlic from the grocery store, because it may have been treated to prevent sprouting, and it may not be adapted to your growing region. Place orders now for garlic for planting this fall, or buy when available at your local garden or feed store. Plan to plant your garlic shortly after the first hard frost -- this will allow the garlic enough time to develop strong roots before winter. Make a note to cover later in fall with a light layer of straw mulch.

Root cuttings of some flowers such as coleus, geranium, and thicker-stemmed herbs, such as sage, to bring indoors over the winter. Cut a 3-inch section of stem, remove the bottom half or two thirds of the leaves, and place in moist soilless mix, vermiculite, or sand. Place the entire container in a loosely tied plastic bag to maintain humidity. Other flowers and herbs can be dug, potted, and kept indoors in a bright area to extend their life well into fall.

Begin preparing houseplants for the move indoors. If possible, acclimate them over the course of a few

weeks to the dryer, warmer, darker indoor conditions by placing them in a transition area such as a porch. Inspect plants for pests before bringing them indoors. Now, too, is a good time to repot if needed, using a houseplant potting soil, not regular garden soil.

Avoid pruning woody plants and roses now; it will encourage a flush of new growth that may be damaged by the upcoming cold temperatures. Instead, wait until late winter or early spring to prune most trees and shrubs. Exceptions to this rule are spring-blooming shrubs, such as lilacs and azaleas, which should be pruned in spring after flowering. You can prune off branches that break in the wind or from other causes.

Continue harvesting warm season crops of beans, peppers, and tomatoes, and be prepared to cover the plants in case an early frost threatens. If covered, these heat-loving plants may survive a light frost. Use floating row covers, which are designed to hold the heat in, or take your chances covering plants with old sheets, cardboard boxes, or whatever else you can find. Extend the covers to the ground. Once done, or plants die from frost, clean the garden.

Pears should be picked at the hard ripe stage and allowed to finish ripening off the tree. The base color of yellow pears should change from green to yellow as the fruit approaches maturity.

Be sure to keep strawberry beds weed free. Every weed you pull now will help make weeding much easier next spring.

Fall is a good time for improving your garden soil. Add manure, compost and leaves to increase the organic matter content.

Sources:

Fall News Article by Charlie Nardozi, UVM Horticulturist, and Leonard Perry, UVM Extension Horticulturist
September Gardening Tips, University of Nebraska-Lincoln Extension, in Lancaster County

This Summer's Surprise: A Fast Growing Perennial

By Robert Campbell

An important piece of information lacking in most garden catalogues and on most web sites is the rate of growth of a perennial plant. In most instances, a tall plant will take three or more years to reach the height advertised. *Desmodium canadense* (Showy Tick Trefoil) was a rare exception to this in a 2010 flower border. Showy Tick Trefoil was a new plant for my East Side House Border. It had several positives going for it.

The foliage sounded like something I would enjoy. The Illinois wildflower site describes a green central stem with fine white hairs; “compound leaves /consisting/ of three leaflets ... grayish green ... 2-3 ½” long and less than half as wide ... oblong or lanceolate in overall shape but rounded at the tips rather than pointed.”

The flowers also held promise. “Numerous pink flowers,” said Prairie Moon Nursery, “for about three weeks in mid-summer.” The University of Wisconsin says “purple to pink”, which is closer to what mine became. The Illinois wildflower site adds a finishing touch of dark pink, red, and green:



Southeast House Border, 8/1/10

“Numerous pink flowers in an elongated panicle ... at the end of one or more of the upper stems. The flowers are about 1/2” (as measured vertically), consisting of an upper and a lower petal. These petals are initially folded and keel-like, but eventually open wide, beginning with the upper petal. There is a small patch of dark pink at the center of the flower...each flower occurs on a hairy red pedicel, and has a hairy greenish red calyx.../followed by/ flat seedpods ... about 2 ½” long.”

I was also in the market for a tall plant. Showy Tick Trefoil was supposed to fill the bill. Estimates of its height varied. Prairie Moon said 5-6’. The Illinois Wildflower website weighed in at 3’. The University of Wisconsin gives a broad range of “from 3’ to 6”.

There were four other positives. First, it is a legume, which “increases the nitrogen content of the soil by means of root nodules” and “second, the root system consists of a long slender taproot (Illinois Wildflowers website). While native to moist lands, once established it will be able to handle drought. Third, Showy Tick Trefoil attracts a lot of welcome visitors to our gardens, including bumble bees, Miner bees, large Leaf-Cutting bees, and various birds. Fourth, it is hardy to Zone 4.

There were three negatives that still made it a bit of a gamble.

First, Showy Tick Trefoil has very tender leaves, which are a preferred “lettuce” for Japanese Beetles. This summer these pests did not visit my roses for the most part. But twice I caught them just before doing major damage to the Showy Tick Trefoil. Once I had to prune off a portion, but it grew back looking better than before. Other creatures for which this plant is a preferred food source include deer, rabbits, groundhogs and livestock.

Second, Showy Tick Trefoil is supposed to be subject to Powdery Mildew. While this was a problem for a few roses and one Clematis this summer, so far it has not been a problem

(Continued on page 4)

Reminder and Thank you!

Thanks to Bob C., John A., and Dianne S. for providing refreshments at the September meeting.

September Workstation Schedule

September 13: Bill Jones
September 20: Kay Sidaway
September 27: Cathy Grossman

This Summer's Surprise: A Fast Growing Perennial—Continued

(Continued from page 3)

for this plant.

Third, according to Prairie Moon Nursery, Showy Tick Trefoil “has a tendency to sprawl.” Prairie Moon encourages “tight plantings” to “help counter /this/ tendency ...” The Illinois Wildflower website is not so strong on this weakness: “This native perennial ... /is/ normally erect, although it sometimes sprawls along the ground.” In my flower border this year, the foliage was erect, with a pleasing vase shape.

The positives for me outweighed the negatives and I planted my bare root in May. I thought that, as with most perennials, I would get a little bit of growth this first year and no flowering. **To my surprise, I found I had in my hands one of those rare things in nature: a fast growing perennial! And first year blooms!**



Showy Tick Trefoil, 5' tall as of July 28th
(Note yardstick in the center)



Showy Tick Trefoil, First-Year Bloom

Information Sources:

<http://wisplants.uwsp.edu/scripts/detail.asp?SpCode=DESCAN>

http://www.illinoiswildflowers.info/prairie/plantx/shw_trefoilx.htm

Information and Plant Source:

<http://www.prairiemoon.com/seeds/wildflowers-forbs/desmodium-canadense-showy-tick-trefoil>

Managing Downy Mildew in Vine Crops

Downy mildew can be a serious disease on any vine crop, but may be especially devastating to cucumbers where the appearance of initial symptoms and complete defoliation may be separated by only a few days.

Symptoms

Downy mildew causes a variety of symptoms depending on cucurbit type. On cucumber, water-soaked lesions on the underside of the leaf are often observed first. Yellow, irregularly shaped lesions confined by the small leaf veins appear soon after on the top of the leaf. These lesions then turn brown and may drop out of the leaf. The “checkerboard” arrangement of lesions is characteristic of cucumber downy mildew. Symptoms normally appear 4–12 days after infection. On cantaloupe, the somewhat angular lesions tend to have a yellow halo around them. On watermelon, the spots may or may not be angular, normally turning brown or black with the leaf developing an upward curl. On pumpkins and winter squash, the symptoms may resemble powdery mildew, causing a yellow spotting that tends to brown out. As the lesions age, they usually become necrotic on all types of cucurbits and the leaves often senesce. This dieback is normally first noticed on the oldest leaves near the center of the plant.

Regardless of the variability in appearance of the leaf lesions among the different cucurbits, the one similarity and diagnostic sign is the presence of purplish-gray sporangia on the bottom side of the leaf within the lesions. These are most readily observed when conditions are cool and moist, with or without the aid of a hand lens. They may also appear when an infected leaf is placed in a closed plastic bag with a damp paper towel for 12–24 hours. The leaves are the only portion of the plant directly affected by downy mildew, though the resulting loss in leaf surface can cause loss of yield, misshapen fruit, and sunscald.



Initial downy mildew symptoms on cucumber



Advanced downy mildew symptoms on cucumber



Downy mildew symptoms on cantaloupe

Causal Organism

Downy mildew is caused by *Pseudoperonospora cubensis*, an oomycete pathogen more closely related to water molds such as *Phytophthora* than to true fungi. There are multiple pathotypes of *P. cubensis*; watermelons, pumpkins, and squash are incompatible with several pathotypes, while cucumbers and cantaloupe are susceptible to them all. There are also several strains within each pathotype, to which various cultivars of each type of cucurbit show varying degrees of susceptibility. *P. cubensis* can survive and sporulate only on green (living) tissue of the host, and therefore cannot naturally overwinter north of Mexico or the southernmost extremes of the United States.

Sporangia are the reproductive structures and also spread the disease on wind currents. Sporangia are produced on the undersides of the leaves when conditions are humid and nighttime temperatures are between 55 and 75 degrees F. The transport and survival of these sporangia are highly dependent on weather conditions. Cloudiness is especially important as direct sunlight or excessive UV light can cause the sporangia to desiccate. Rainfall can also wash the sporangia out of the air if it occurs before the sporangia travel much of a distance from source area, or it may help to deposit them in production fields. Upon deposition of the sporangia on a leaf surface, the absence of free moisture on the leaf may prevent infection, though only 2–6 hours of free moisture are required. Likewise, temperatures outside of the acceptable range for infection (41–82 degrees F) may also inhibit infection.

For many years, downy mildew was not reported in Ohio cucurbit fields until late August or September, being dependent on remnants of hurricanes to carry the spores northward. Presence of the disease was often considered inconsequential as many crops were considered mature, and the loss of leaf surface at that point did little to reduce the yield of crops such as pumpkins. For late cucumber or melon plantings, fungicides could be applied for control measures. More recently, cucurbit downy mildew has been reported

(Continued on page 6)

Managing Downy Mildew in Vine Crops—Continued

(Continued from page 5)

as early as late June, possibly due to overwintering of the disease in greenhouses in northern North America or use of transplants produced in the southern United States or northern greenhouses. New strains of downy mildew have also developed that are resistant to commonly used fungicides, and have overcome the genetic resistance of some cultivars. These midseason infections have resulted in heavy yield losses where preventive measures have not been taken.

Management—Cultural Practices

The same cultural control measures are suggested as part of an IPM effort whether a crop is conventional or organic, in that they may help to reduce or delay the chances of an initial infection.

1. Despite some strains of downy mildew overcoming currently available genetic resistance, the use of disease-resistant or tolerant cultivars is still highly recommended as some degree of resistance remains. A list of these can be found at the North Carolina State University Cucurbit Breeding web site at <http://cuke.hort.ncsu.edu/cucurbit/cuke/cukemain.html>.
2. Select growing sites with good air drainage, full sunlight, and low humidity.
3. Avoid overhead irrigation to prevent leaf wetness.
4. Insure adequate, but not excessive fertility.
5. Monitor the crop frequently, and make use of the North American Plant Disease Forecast Center at <http://www.ces.ncsu.edu/depts/pp/cucurbit> to monitor reports of downy mildew throughout the country. Local updates are also available on VegNet (<http://www.ag.ohio-state.edu/~vegnet/>).
6. If early in a downy mildew epidemic, removal of infected plants may help to slow the spread of the disease. When doing this, make sure not to spread the disease by hand or infested equipment.

Management—Chemical Control

For conventional growers, it is suggested that protectant fungicides be applied on a 7–10 day schedule upon emergence of the seedling or transplanting. When downy mildew is detected in the area, a curative-type fungicide should be added to the spray mixture and the spray schedule should be shortened to 5–7 days. Consult the Ohio Vegetable Production Guide (OSU Extension Bulletin 672) for recommendations and make sure to rotate fungicides with different modes of action.

For organic growers, there are several alternative fungicides labeled for cucurbit downy mildew, including copper-based fungicides. Growers should be cautious in applying copper, as it can be phytotoxic to cucurbits, and high levels in soil are toxic to earthworms and other beneficial organisms. Phytotoxicity is most common during cool, moist conditions, which are also the most favorable for downy mildew. A list of the other alternative fungicides can be found at the National Sustainable Agriculture Information Services “Downy Mildew in Cucurbits” web page at <http://attra.ncat.org/attra-pub/downymildew.html#ref4>. Make sure to check with OMRI <http://www.omri.org> and your organic certifier to determine if the suggested products are currently considered acceptable for organic production.

Sources:

Ron Becker, OSU Extension, Wayne County
Sally A. Miller, Department of Plant Pathology
Photos by Sally A. Miller
HYG-3127-09



Close-up of downy mildew on pumpkin



Downy mildew symptoms on watermelon



Purplish-gray sporangia on bottom side of a cucumber leaf

"Dreams and Reality - Summer of 2010"

By Bob Campbell (Part II of III)

Note: This article is continued from the August 'Green Thumb Print.' In these articles, Bob shares the reality of his spring gardening dreams.

A third dream turned into a good reality. *Datura ceratocaula* 'Torna Loco' was supposed to be great for wet places. J.L. Hudson, Seedsman described it as having "pale lavender blooms" and "purple stems" and unique smooth seed pods. It is, they said, "often semi-aquatic, growing in shallow water." I tried it at the lowest point in my backyard that takes in a lot of moisture, and in my water garden as a potted plant.

It has thrived well in its backyard spot, growing to about two feet tall by mid-July. The foliage is a little sparse, and the stems are not as "purple" as advertised. But the blossoms have been special. They are narrow and about nine inches long. Whiter than described, they are lined with lavender stripes. They've been a joy to see. In the water garden, though, 'Torna Loco' has pretty much stood still, not dying but not growing, and not producing any blooms.



**Datura 'Torna Loco'
foliage & bloom**



**Datura 'Torna Loco'
Bloom**



**Datura 'Torna Loco'
Smooth Seedpod**

More September Things-to-do

Plant peonies now, but make sure the crowns are buried only one and a half to two inches below ground level. Planting them deeper than two inches may keep them from blooming.

Perennial phlox can be divided about every third or fourth year. Divide big clumps of perennial phlox into thirds. Early fall or early spring are the best times to plant or transplant them.

Divide lily-of-the-valley.

Before the first frost dig up caladiums. Allow them to dry and store them in a dry place for the winter.

Allow plants to finish the summer growth cycle in a normal manner. Never encourage growth with heavy applications of fertilizer or excessive pruning at this time. Plants will delay their dormancy process that has already begun in anticipation of winter in the months ahead. New growth can be injured by an early freeze.

Tree wound paints used after pruning are no longer recommended as they can slow healing and may promote decay.

Rake up leaves, twigs and fruit from crabapple trees and dispose of them in the trash to help control apple scab disease.

Water newly planted trees and shrubs to provide sufficient moisture and prevent winter damage. Add a three inch layer of organic mulch such as shredded bark around the base of plants to retain soil moisture and regulate soil temperature.

A big **THANK YOU** to Curtis Young for his excellent "Bug Walk" presentation held August 12 at Riverbend.



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