



Hosta Happenings

August 2007

Vol. 11, Iss 4

M.V.H.S. ANNUAL POTLUCK

SUNDAY, SEPT. 9, 2007

3:30 PM

VANDERVEER BOTANICAL PARK

(by the Hosta Glade)

215 W. Central Park

Davenport, Iowa

Rain or Shine

(if it's raining, we can move to the stone shed across the street)

Bring a dish to share, your own table service and a chair to sit on!

Our club will furnish the chicken and drink!

Ron Simmering will do a trough planting demonstration!!!

There will also be a few 'Bix Blues' hostas
and other newer varieties of hostas for sale!

MY THOUGHTS ON THE
MIDWEST REGIONAL HOSTA CONVENTION

by Ron Simmering

'Thank You's' have been made to all of the people involved with the convention. For all of you who helped in any way, thanks again! For those of you who didn't participate, you missed a great chance to see a first class convention up close!

So many compliments have come back about it. The hotel was perfect and very accommodating. The Hosta Show went well. The vendors were numerous and well stocked with super plants. So much variety! The gardens were tremendous and all of the hours of preparation really showed off. The Friday night dinner at VanderVeer was called the "best hosta convention picnic ever!" The food in the gardens was varied and well presented and the hospitality room had a wonderful selection of treats, snacks and drinks. People enjoyed the raffles and wandering downtown Davenport.

Even the weather was perfect, but then DeEtta was in charge of that!

It was a great time and while I'm glad it's over, I'm also very proud of all of you and our club for being able to that so very well!

Thanks again,
Ron

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**DOROTHY WILSON HAS BEEN IN THE HOSPITAL FOR A COUPLE OF MONTHS AND IS NOW AT THE ILLINI RESTORATIVE CARE CENTER, 1455 HOSPITAL RD., SILVIS, IL., 61282.**

**HER HUSBAND, BEV, FELL A FEW DAYS AGO AND IS IN THE ILLINI HOSPITAL, 801 ILLII DR., SILVIS, IL 61282, HIS CONDITION IS NOT SERIOUS.**

**THEY ARE BOTH IN OUR HEARTS AND PRAYERS.**

**THEY WOULD LOVE TO RECEIVE CARDS!**



**BIX BLUE'S THANK YOU!!**

Many thanks to all who helped and attended the Midwest Regional Hosta Society Convention which was held here in Davenport on July 12-14 at the Radisson Hotel.

We had a great attendance of people from the eight states in the Midwest region. Everything went well – perfect weather for our bus tour of five picture perfect gardens, a great Hosta Show, enthusiastic vendors who brought their latest and greatest hostas, a wonderful auction which made \$8900 for the Midwest Region, the food in the gardens and the "hostality room" was delicious, the optional gardens were just as beautiful and the camaraderie couldn't be beat!!!

Sally and I were so glad to be a part of it. We have set a standard for future conventions because we think ours was great!

Thanks again for everyone's help! We couldn't have done it without you!

**Sally and Carolyn**

**Jim Wilkins 2007 Recipient of  
Alex Summers Distinguished Merit Award**

from Michigan's Hosta Happenings

This award was established in 1982 to honor the first president of the American Hosta Society, Alex J. Summers. It is given to a member of the society in recognition of having given outstanding service to the Society, to the development of the genus Hosta, or both. Jim was one of the founding members of the Michigan Hosta Society and an integral part of the establishment of the Hillside at Hidden Lake Gardens. He was also very involved in the AHS and served a term as President and another as Hosta Registrar.

The award winner selects a hosta with distinguished merit and that hosta's merit is detailed in the acceptance address by the Summers Award recipient. Jim selected the hosta 'Dorothy Benedict' as his outstanding hosta. This hosta has become the backbone of many hosta breeding programs and has produced many varied and valuable offspring.

## **Fall Slug Control**

by Mary Bardens

Did you know that fall is still egg-laying time for slugs? We tend to forget about them as the hosta leaves change color and head into dormancy. The slugs will be active until the soil temperatures reach freezing when they will go into hibernation until the spring thaw. So, until that happens, they will lay eggs. Mating will occur from August until mid-October with eggs laid about 30-40 days after that. Look for 1/8 to 1/4 inch sized gelatinous clusters of about 20-30 spheres. Older slugs will lay larger quantities. The eggs may be hard to see as they can reflect their surroundings. When the eggs are near hatching, the spheres may become cloudy. Slugs love those piles of leaves, damp from heavy dews and fall rains. Look for them under anything that will keep them cool and moist. Other favorite places will be flower pots, boards, cooled compost piles, at the edge of large rocks or under mulch.

### **So the big question is-what to do?**

- 1. Eliminate their favorite spots.** Clean up the old hosta leaves and other debris. Turn the compost pile to make it too hot to be attractive for them. Check under those flower pots before you store them.
- 2. Set a slug trap.** They are attracted to any fermenting food: beer or a mixture of sugar, yeast and water. Sink a tuna can to 1" of ground level so they will crawl in and drown. If you put it flush to the ground you run the risk of drowning ground beetles which are a slug predator. Colorado State U. Entomology Professor Whitney determined that their favorite types of beer were Kingsbury Malt, Michelob & Budweiser. Check often to empty. Replace beer weekly. Commercial slug baiting stations are available. If you leave a flat board on the damp ground, you can scrape them off in the morning.
- 3. Go on a slug hunt.** Late at night or very early morning, grab a flash light and bucket of soapy water to drop them into after hand picking. Slugs are nocturnal and love to hit the all night hosta diner. Watch for the little ones. Like teenagers, they are voracious eaters. You can even use a handheld vacuum to suck up the little pests, but you may want to warn the next person to use it.
- 4. Encourage a predator to hang out in your garden.** Toads, turtles, owls, Mourning Doves, and Robins love slugs. And then there are some predators that we may not be too thrilled coming upon in the hosta bed that also feast on slugs: black ground beetles, opossums, shrews, wild turkeys, chipmunks, skunks, moles and Northern Ringneck snakes.
- 5. Iron Phosphate.** Slug bait pellets made from this can stop slugs without poisoning birds, small pets, humans or earthworms. Though they are not sure exactly why, iron phosphate inhibits the slugs from feeding. And, it is actually good for the soil. This is sold under the names of Sluggo, Es-car-go. and Safer's Slug & Snail Bait.
- 6. Metaldehyde.** This is a molluscicide which means it is a poison that kills slugs and can be purchased in a form to spray on the hostas. It is very effective for killing slugs, but also earthworms and other things with which it comes in contact. Great care in handling, application and storage must be observed.

**7. Ammonia Solution.** A solution of household ammonia (1 part ammonia:5 parts water) in a spray bottle with the nozzle set on a direct stream and sprayed directly on the slug will kill it in a few seconds. This solution will not harm the plants.

**8. Barriers.** Copper tape placed around the hostas repels slugs because as they slime across it, it causes a toxic reaction like an electrical shock. But if they find a leaf lying over the barrier, they get in. A product called Slug de-Fence is composed of a low density polyethylene plastic and vacuum grade table salt. It repels the slugs unless they try to get over it, and then the salt gets them. Although, I'm imagining it may also look like you tried to wrap your plants with little trash bag fences.

**9. Abrasive Materials.** Eggshells, coffee grounds, sand, cedar shaving, hair or ash may be place around plants which scratches the slugs bodies causing them to dehydrate. Diatomaceous earth can also be used, but it is a very fine powder and you must wear a mask to keep from inhaling it. But, these products must all be kept dry to work, so they must be reapplied after a rain.

**10. Biologic Control.** In Europe you may purchase the parasitic nematode *Phasmarhabditis hermaphrodita* which is naturally occurring in their soil. This is a microscopic worm that enters the slug's body through natural openings and releases bacteria that multiplies and kills the slug in 4-16 days. It does not bother earthworms. It also has the ability to recycle and become part of the ecosystem in the absence of a host which would make it good for long term management. It is marketed under the name Nemaslug. But, don't try to add it to your Thompson & Morgan order just yet, it's still illegal here. Agricultural scientists collaborating from Ohio State U. and Purdue U. are doing parasitic nematode research to help protect crops in no-till fields which are most susceptible to slug damage. They are also evaluating the American parasitic nematode cousin, but so far none is as effective at the European relative. They are compiling data showing the safety of importing nematode *Phasmarhabditis hermaphrodita* into our soil.

## SOUTHERN BLIGHT AND CROWN ROT

Here is a subject with which I now, unfortunately have had some experience.

The uneven temperatures of this past spring, along with the rain/drought cycles, have affected my front hosta garden. This area is a microclimate that allows some earlier emergence of plants in comparison to my back hosta beds. Several of the hostas in this bed were smaller due to the late spring freeze, but around the beginning of June I noticed that leaves were turning brown. As I investigated each hosta, the petioles were separating from the base of the plant and in some cases entire divisions could easily be pulled out. The end of the stems and divisions were brown, mushy and there was a distinct rotten odor. I had seen this on a much smaller scale in previous years and after losing a few leaves, the hostas were fine. At first I had attributed this to the spring weather. But this year I lost several hosta 'Elegans' that were planted in a drift leaving a gaping hole in a usually thickly planted bed. There was also partial loss of a number of adjoining hostas. It was not hard to see a pattern emerging.

There is a fungus, *Sclerotium rolfsii*, which can cause crown rot in hostas as well as in a variety of perennials, annuals and some woody plants. Hot, humid weather from spring to early fall helps fuel this fungus. Damage to plants can start as soon as the temperature exceeds 70 degrees. The largest outbreaks are often seen when heavy rain follows a period of heat and drought or intermittent rains during periods of 85-95 degree weather. During these periods of high humidity, the fungus starts as a white cottony web (mycelium) that spreads out over the stem base and soil. It will then form itself into *sclerotia* which appears like tiny mus-

lard seeds, starting white and turning dark brown, seen at the base of the plants. The *sclerotia* can be spread around the garden by tools, fillers, flowing water, previously contaminated soil or even by foot traffic. It is capable of over-wintering in the soil especially under cover of snow, mulch or garden debris.

The first indication of Southern Blight or crown rot may be the wilting of the outer leaves and seeing the petioles lying on the ground. As I started to remove these dying leaves, I also noticed dark brown lesions on some of the petioles towards the base which I have since learned to be a sign of attack before symptoms are obvious.

You cannot completely kill all the fungus in your garden, but there are ways to manage it. Place the dead and diseased plants in a trash bag for the landfill or bury them. Do not place in your compost pile. If you want to remove the contaminated soil, excavate 8" down and 6" beyond the diseased area. Replace with sterile soil, not recycled potting soil.

If you opt not to remove the soil, drench heavily with a 10% bleach solution applied to the soil and at the base of the plants. Make sure that you apply this beyond the area you think is affected.

*Bayer Advanced Disease Control for Roses, Flowers & Shrubs* lists Southern Blight as one of the diseases it controls. A 32 oz bottle of concentrate makes 42 gallons of spray. It is diluted and applied as a drench to the area and base of affected plants followed with a good watering in (it is a systemic so the plant must absorb it) or there are directions for use in a hose-end sprayer. This is repeated according to directions every 7-14 days for a total of 3 times.

*Bayer All-In-One Rose & Flower Care* lists control of Southern Blight and is what I applied to my garden, also a systemic. It contains

some fertilizer, too. Diluted and applied as a drench in the area and at the base of the plant, it is reapplied every 6 weeks for a total of 3 times. I am now ready for the second application but have already seen a decrease in new leaf damage. I applied it to an area wider than the noticeable damage and marked the area to know where I had been.

Sanitation is one of the best ways not to spread Southern Blight. Clean all tools of soil and dip them in a 10% bleach solution. Don't forget to clean the soil off of hands, gloves, shoes and boots so as not to spread it to other areas. Since this is a soil born disease, it would also be a good idea to bare root any potted hostas, rinsing the soil off of the hosta roots away from the hosta bed prior to planting. Reduce stress to the hostas by watering regularly when there is not sufficient rain. A healthy hosta is more resistant.

I will not replant hostas in this area for now. Nor will I plant any of the following which are also hosts for Southern Blight: agave, anemone, azalea, begonias, buttercup, caladium, campanula, columbine, daylily, dicentra, forsythia, foxglove, germander, hellebore, hydrangea, lily-of-the-valley, iriopo, lysimachia, monkshood, oat grass, pachysandra, phlox, sweet woodruff, trandescantia, viburnum, vinca, violet, and wood fern.

But there are plenty that are not known hosts for Southern Blight and will be fine in part sun to full shade: astilbe, baneberry, bloodroot, cimicifuga, corydalis, epimedium, fairy-bells, filipendula, gaura, gentian, geranium, goats-beard, hakonechloa, heuchera, Jacob's ladder, lady's mantle, lamb's ear, lamium, maidenhair fern, mertensia, primula, pulmonaria, royal fern, shield fern, Solomon's seal, thelictrum, tiarella, trandescantia, trillium, trollius, and trout lily.

Next year, at the end of May, I will start retreating this area and keep a watchful eye on my beloved hostas.

Mary Bardens



Yard & Garden

**BRUEFF**

PLANT PATHOLOGY

## FOLIAR NEMATODES

Janna Beckerman  
Extension Plant Pathologist  
**Plant Disease Diagnostics**  
University of Minnesota, Yard and Garden Clinic

Foliar nematodes are an emerging problem on a host of landscape plants in Minnesota. Unlike many other plant pathogens that have narrow host ranges, foliar nematodes, particularly *Aphelenchoides fragariae*, have broad host ranges and are capable of infecting hundreds of species of plants. In addition to broad host range, there are few effective nematicides labeled for home use. This can create "mini-epidemics" in the home landscape, and leave the homeowner frustrated.

**Symptoms:** In Minnesota, symptoms of foliar nematode damage appear towards the end of the summer. The symptoms of foliar nematode damage are due to the nematodes' feeding on the foliage, stems and buds. This feeding usually causes a 'V' shaped necrosis. In hosta, the wedge-shaped lesion is delimited by the veins (Fig. 1). In broad-leaved plants and ferns, the lesions appear patch-like (Fig. 2). It is quite normal to see healthy tissue right next to the diseased portions of the tissue. Lesion delimitation by the veins should make you suspicious of nematode, however, examination with a 10x hand lens is essential.

**Signs:** To observe foliar nematodes, tear the suspected leaf in a dish with water. After approximately 12-24 hrs, examine the water with the hand lens. Observation of little roundworms is a key diagnostic feature of this disease.

Unlike most plant pathogenic nematodes, foliar nematodes live in and feed upon the aerial portion of the plant. These microscopic roundworms are unrelated to earthworms. After the eggs hatch, there are four larval stages prior to the mature adult stage. The entire life cycle can be completed in 2-4 weeks, even sooner if the temperatures are higher. Any infected leaf will contain multiple generations of nematodes.

Foliar nematodes spread by contact between plants in the presence of water. They move through the surface of the plant and enter via the

stomates (gas exchange pores). Because of the broad host range of this pathogen, it is recommended that plants be well spaced to allow foliage to dry between waterings. Drip irrigation, which minimizes foliar wetness, is recommended for gardeners who have this problem. Controlling leaf wetness isn't enough, though; foliar nematodes are very tolerant of dry conditions, and can remain viable for several years in decaying plant material.

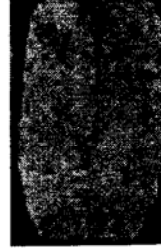
**Management:** Despite all this bad news, there are management techniques available. First, examine your nursery stock, and plant in a remote area for evaluation. This will allow you to either treat or dispose of any infected plants. Second, minimize foliar wetness to reduce the spread of the nematodes between plants. Third, remove and destroy infected leaves, and remove all dried leaves and stems during fall clean up. Fourth, insecticidal soap or ZeroTol (a concentrated solution of hydrogen peroxide) should be applied when symptoms become evident. This is a "contact-kill" and has no residual benefits.

Finally, foliar nematodes are easily killed by heat. Remove any dead leaves, and soak infected plants in hot water (120-140 degrees) for up to 10 minutes (you may wish to divide plants up and soak 4, 7 and 10 minute intervals). You can kill the crowns if the water is too hot or if they are dipped too long. Continuous monitoring of the temperature is important. Use a timer or stop watch. Immediately following the hot water treatment, the plants are plunged in a bucket of cold water (as cold as possible from the faucet). Do not leave plants in the cold bath more than about 5 minutes - just enough time for the tissue to cool. Drain and pot the plants immediately. Plants do not store at all well after this dipping regime, so it is best to treat plants about the time they would be breaking dormancy. Unfortunately, because the nematodes can survive saprophytically in the soil, the long-term efficacy of this approach is questionable.

Although there are nematicides labeled for nursery use, these products are EXTREMELY toxic, especially to fish and wildlife, and are not available to the homeowner. Misapplication of these pesticides has been linked to death of hundreds of songbirds, fish and wildlife. It truly has no place in the home landscape.



**Fig. 1.** Foliar nematode produces a wedge-shaped lesion in hosta and other monocots.



**Fig. 2.** Angular lesions on zinnia produced by foliar nematodes.



Leaves have patches or wedge-shaped areas of dead tissue.

Photo by Janna Beckerman.

# HOSTA VIRUS X

By Josh Spece  
[www.inthecountrygardenandgifts.com](http://www.inthecountrygardenandgifts.com)

## Symptoms of Hosta Virus X

Hosta Virus X affects different hosta cultivars in different ways, so it is impossible to give a definitive description of symptoms. The most common visual symptom is blue or green markings on a light colored leaf. These markings usually follow the leaf veins and bleed out into surrounding tissue giving the plant a mottled appearance. The tissue often appears lumpy, puckered, and of different thickness or texture that normally colored tissue. Less common symptoms include dried, brown spots and twisted, deformed leaves. It may be difficult to detect off colored mottling on dark, solid colored leaves. Some green tissue will show lighter colored mottling along the veins, but it is not as pronounced as the markings on gold tissue. To make matters worse, some hosta cultivars don't seem to show any visible symptoms of being infected with HVX and it may take a year for symptoms to show after a plant has been infected.

## Preventing Hosta Virus X from Spreading

The best way to prevent Hosta Virus X from infecting your collection is to simply not grow infected plants. Always avoid strangely spotted or mottled plants you find at nurseries. Not all infected plants show visible symptoms,

though, so if one plant in a group shows symptoms do not buy healthy-looking plants in the same group. If one has it, it is very possible some, and maybe all, of the others do. Any plants that came from the large bulk wholesalers should be considered "on probation" for the next two years. This includes most hostas found at the "big box" stores. Watch for signs of HVX, don't cut them, and throw them out if any suspicious symptoms appear. Whenever you are dividing or trimming plants, always sterilize your tools using bleach, rubbing alcohol, or ammonia between each plant.

## Dealing with HVX Infected Plants

Hosta Virus X infected plants will not recover, so they must be prevented from spreading the disease to healthy hostas. If you have a virus infected hosta in your garden, it should be destroyed. Dig up the plant and send it to the landfill or burn it. HVX can not survive in the soil, so as soon as the infected roots remaining in the garden have decomposed you can safely plant another hosta in the same location.



Hosta 'Breakdance' showing typical Hosta Virus X symptoms. Photo courtesy of Josh Spece

# Fact Sheet on Foliar Nematodes

Cobb County Extension Service  
By Nina Eckberg, County Extension Agent, Marietta, GA

## IDENTIFICATION: Foliar Nematode (*Aphelenchoides* sp.)

**APPEARANCE:** Microscopic worms that live in plant stems and leaves. The nematode lives and feeds inside the leaf tissue.

**HOSTS:** Hostas, chrysanthemums, begonias

**SEASON:** Leaf/foliar nematodes are most damaging in regions where summers are warm and wet.

**DAMAGE:** fan-shaped, yellow-brown to gray leaf blotches that progress down and outward in the plant from upper leaves. The nematodes can move on a thin film of water, but their movement is limited by major leaf veins. The resulting symptom is a V-shaped, damaged area bordered by leaf veins.

**IPM:** Several steps can help control foliar nematodes:

- buy clean plant material- most foliar nematodes are brought into the garden. Do not buy plants with leaf blotches.
- careful watering- do not water plants overhead with sprinklers, use watering wands or soaker hoses.
- sanitation- remove and destroy heavily infested plants. Pick off and destroy all infested leaves and the 2 leaves directly above them.

**COMMENT(S):** Nematodes can live for years in plant debris or the soil without the benefit of moisture.

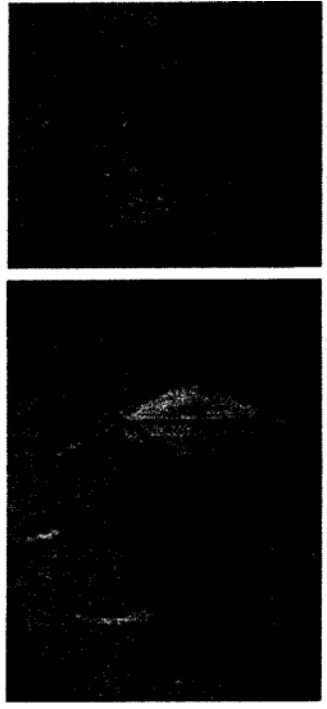
If you think you have foliar nematode damage, bring it to the Extension office for diagnosis.

Sources:

Horst, R. Kemeth and Paul E. Nelson (editors) 1997. Compendium of Chrysanthemum Diseases. Pages 40-41. AFS Press, St. Paul MN.

Smith, Cheryl (editor) 1993. The Ortho Home Gardener's Problem Solver. Pages 96, 99. The Solaris Group, San Ramon CA.

Eckberg, Nina 2000. Pictures of foliar nematode damage on hosta. Cobb County Extension Service, Marietta GA



## START EARLY TO CONTROL NEMATODES

(Reprinted from Hoosier Hosta Herald, 2/2006)

According to a talk given by hosta grower and breeder Ran Lydell, you should start in the spring to control Nematodes.

**SPRING:** First application- Disyston as in Bayer (brand) Advanced Rose and Flower Care, with fertilizer at 12-18-6. It's a granular systemic product that he gets from Home Depot.

**MID AND LATE SUMMER:** 2nd and 3<sup>rd</sup> applications: Zerotel (1T. per gallon of water).

**FALL:** 4<sup>th</sup> Application: Household bleach at 25% concentration.

The order of application makes sense; fertilize in the spring and bleach in the fall. Ran says he is not sure which product is more effective or if any one treatment is sufficient, but after this treatment, the affected hostas show no noticeable damage.

Dues for the Mississippi Valley Hosta Society are \$7 per year. Please make your check payable to MVHS and send to DEAN PIATT, 2910 Telegraph Rd., Davenport, IA 52804.

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AHS DUES WILL INCREASE IN 2008. Avoid the rush and save a few dollars before the increase takes effect! The American Hosta Society offers participation in all national activities, including a national convention, three issues of "The Hosta Journal", and a directory. They also have a web page - [www.hosta.org](http://www.hosta.org). Dues for the remainder of 2007 are \$25/yr, \$47/2 yrs and \$500 life for an individual. Family memberships are also available at \$29/yr and \$52/2 yrs. Make your check to American Hosta Society and send to the AHS Membership Secretary, Sandie Markland, 8702 Pinnacle Rock Ct., Lorton, VA 22079.

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Dues for **Midwest Regional Hosta Society** are \$10/yr. Send your check to: Pete Postlewaite, Treasurer, 21172 Andover Rd., Kildeer, IL 60047-8604.

### **WHAT'S HAPPENING!**

SEP 9 – Annual Picnic/Potluck, VanderVeer  
OCT 14 – 6 PM, Meeting, Riverdale Fire Sta  
NOV 11 – 2 PM, Meeting, Riverdale Fire Sta  
NOV 30 – Annual Holiday Party, Outing Club  
JAN 19 – Winter Scientific Meeting,  
Schaumburg, IL

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**If you have an email address, will you please send me an email so I can start capturing the email addresses of our members. Also, let me know if you would like to get your newsletter via email. My email: [cbhamilton@pobox.com](mailto:cbhamilton@pobox.com).**

**Carolyn**

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**PLEASE VISIT OUR MVHS WEB SITE:**

**[mvhosta.org](http://mvhosta.org)**