



IOWA STATE UNIVERSITY University Extension

Helping you become your best.

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Hello everyone!!!

The end of another gardening season is quickly coming to a close. It's been really busy at my house trying to get the leaves all cleaned up. Some of the flower beds are ready for winter. I have several large pine trees across the front of my lawn and there is no sun that gets to the area so I decided to just move a bunch of hostas in there and they will get mulched in the spring.

What a bumper crop of walnuts there is over here and apparently everywhere else this year. I think that the nuts we have this year are probably what we would have gotten in a five year period. If you need any . . .

Don't forget to get your reservations in for the Recognition Dinner. Hope to see all of you there. A big thanks goes out to everyone who has helped make the Master Gardener program a big success for 2011.

Happy Halloween to all.

-- Mary Ann Emery

Mission Statement

The mission of the Master Gardener Program is to provide current, research-based, home horticulture information and education to the citizens of Iowa through ISU Extension programs and projects. Through their participation in educational activities, Master Gardeners also increase their own personal knowledge in horticulture. Master Gardeners extend Iowa State University Extension's consumer horticulture education programs through volunteer activity.



Items of Interest!

- 1) Message from Marv
- 2) Annual Recognition Dinner
- 3) Reporting Hours On-Line
- 4) Ask the Experts
- 5) Protecting Trees and Shrubs from Rabbits
- 6) Grass-Carrier Wasps
- 7) Plant and Insect Clinic
- 8) Raspberry Leaf Spot
- 9) Fall Horticulture Conference
- 10) Gardening Tip



Master Gardener News Items

Please mark your calendars with these important dates. Thanks Everyone!

- a) **Master Gardener Advisory Committee Meeting. No meeting in November.**
- b) **Master Gardener Recognition Dinner, Monday, November 7, 2011 at 6:00 p.m. in the Sacred Heart Church Community Room.**

NOTE: These events have been approved for volunteer hours toward gaining or maintaining your Master Gardener certification. Please contact Marv Stoffel at (563)582-4764 or by email at stoffel19@mchsi.com if you want to be a volunteer at any of these events. Watch this area for more exciting events to come.

From Marv Stoffel, President

Master Gardener Advisory Committee

We have really had a nice fall so far. Usually we get a lot of rain but, the good thing about this weather is it helps dry down the corn and bean harvest saving on fuel. This weather also makes doing our fall chores more enjoyable. The Fall Plant Sale was very successful again this year. Thanks to all who helped and donated their time, talent, and treasures. A special thanks goes to Frank Kalnes and Joe Timmerman for co-chairing this event.

Our next and final event of the year is our Annual Recognition Banquet. It will be on Monday November 7th in the Sacred Heart Community Room at 6:00pm. We have included a flyer with the details with this mailing. This event is chaired by LeAnn Keller. Our banquet is always a fun event because it's a time when we can share the year's events and stories and pat ourselves on the back for having another successful year as Master Gardeners. We want to especially thank and recognize the hosts for the Tour of Gardens. We could not have a Tour without the hosts opening up their yards and gardens. I'm really looking forward to the banquet. I hope to see many of you there! Don't forget that daylight savings time ends on Sunday November 6th.

Have a safe and Happy Halloween everyone!

Please Note: Date/Time Change for Recognition Dinner

Please note that the Master Gardener Recognition Dinner will be held on the **first Monday in November** and not the second as it usually is. The dinner will be held in the Sacred Heart Church basement on Monday, **November 7** at **6:00**. It was decided at the last Advisory Committee Meeting to change the date so that our members who serve on the Extension Council can attend the entire meeting. Don't forget to let Trish or Lee Ann Keller know that you will be attending. It will be here before you know it!!! **Thanks in Advance!!**

Reporting Hours On-Line Deadline is Quickly Approaching

Submitted by Cathy Darrah,
Secretary of Dubuque Master Gardeners

Iowa State is now requiring education and volunteer hours to be reported on-line. **The deadline for entering this information is November 1.** Please get your hours in so that you can get recognition for the work that you have done. For those who would like to register and do this on their own, the following will help you get started. For those who cannot report hours on-line, continue sending in your hours to the Extension office as you have previously done and the hours will be put into the computer for you.

To begin reporting your hours on-line you first must register:

Registration is found at:

www.mastergardener.iastate.edu

In the center of the Master Gardener home page is a link titled Report Your Hours Online. Click on this link.

A new page will open with an ENROLL link in the center of the page, click on that link.

You will be asked to type in your email address and then to retype it.

You will need to type in a password and then retype the password again.

Fill out your name, address, city, county, zip, phone and year that you became a Master Gardener.

After you have completed the fields, click enroll.

A detailed How-to presentation on enrollment and to input hours is provided by ISU on the home page: www.mastergardener.iastate.edu

directly under the link Report Your Hours Online.

Or Cathy Darrah will be happy to assist any one in registering and general questions on how to use the on-line reporting. Best time to reach Cathy is in the evening at [563-588-0743](tel:563-588-0743) or email her at jdarrah7@mchsi.com.

2012 Garden Calendar Puts Spotlight on Public Gardens

By Cynthia Haynes, Richard Jauron, Christopher Weishaar

AMES, Iowa — Many of Iowa's beautiful public gardens are in the spotlight next year with the [2012 Garden Calendar](#), from Iowa State University Extension and Outreach. The full-color, 12-month calendar highlights a different public garden each month with several photos and information about the garden.

"We wanted to spotlight public gardens next year



Iowa Arboretum
An Iowa Treasure

June

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 Master and her son report photos and hours online
3	4 Rear by high school location	5	6	7 Rear by high school location	8	9
10 Rear by high school location	11 Rear by high school location	12	13 Rear by high school location	14 Rear by high school location	15	16
17 Rear by high school location	18	19	20 Rear by high school location	21	22	23
24	25	26	27	28	29	30

A Library of Living Plants
You will find 25 collections, from an open garden to grasses, herbs, huckleberries, daylilies, conifers, nut trees, and wetland trees in over 500 acres of forest, prairie, and meadows. Stroll through the woods or take a guided tour of the library of plants.

1075 Plaza, Ames, IA 50010
(515) 785-3235
www.iowaarboretum.org
Open daily, dawn to dusk
Office is open Monday through Friday 9 a.m. to 5:00 p.m., closed holidays
Free admission

Photo credit: Mike L. Smith
IOWA STATE UNIVERSITY
Extension and Outreach

because we have so many wonderful gardens in Iowa,” said Cynthia Haynes, ISU Extension horticulture specialist. “Many of these gardens also have special plant collections, which can give homeowners planting ideas for their own landscapes.”

Haynes said visiting these gardens also can help gardeners see what a plant will look like and how much space it will need, as well as inspire them with interesting planting combinations, as they plan their own gardens at home.

The public gardens featured include: The Brenton Arboretum, in Dallas Center; Reiman Gardens, in Ames; Des Moines Botanical Center and Better Homes and Gardens Test Garden®, in Des Moines; Pella Historical Village, in Pella; Iowa Arboretum, in Madrid; Bickelhaupt Arboretum, in Clinton; Neal Smith National Wildlife Refuge, in Prairie City; Vander Veer Botanical Park, in Davenport; Cedar Valley Arboretum and Botanic Gardens, in Waterloo; Dubuque Arboretum and Botanical Garden, in Dubuque; and Noelridge Park, in Cedar Rapids.

The calendar also lists additional public gardens in Iowa. Each garden listed includes a photo, location and contact information.

Each month has several gardening activities and chores listed, so homeowners can easily stay on task as they plan, prepare for, plant and take care of their own 2012 garden.

“Some gardeners also use the calendar as a journal to keep notes from their garden,” Haynes said. “We hope the calendar helps inspire people to create beautiful landscapes and gardens of their own that are fulfilling and rewarding throughout the year.”

Additional extension information and resources are listed in the calendar for gardeners interested in finding out more about various garden topics.

“Public Gardens of Iowa – 2012 Garden Calendar” (PM 0815) is available for \$6 from the ISU Extension and Outreach online store at www.extension.iastate.edu/store or from local extension offices. This is the 34th edition of the ISU Extension and Outreach garden calendar.

About the Authors: [Cynthia Haynes](#), Master Gardener Professor-in-Charge, 515-294-4006, chaynes@iastate.edu; [Richard Jauron](#), Horticulture, 515-294-1871, rjauron@iastate.edu; [Christopher Weishaar](#), Extension Communications and External Relations, 515-294-1327, cweishaa@iastate.edu.

Ask the ISU Extension Gardening Experts



As lawn mowing comes to an end, it is a good time to perform other lawn maintenance. This week Iowa State University Extension horticulturists address fall lawn care. To have additional lawn questions answered, contact them anytime at hortline@iastate.edu or by calling 515-294-3108 Monday through Friday from 9 a.m to noon and 1-4 p.m.

Is fall a good time to fertilize the lawn?

Fall is an important time to fertilize the lawn. Spring and late summer fertilizer applications mainly stimulate leaf growth. A fall fertilizer application promotes root development, enhances storage of food reserves and promotes early green-up next spring. Early November (once the turfgrass foliage has stopped growing) is the ideal time to apply fertilizer in fall. Nitrogen is the most important nutrient to apply in fall. Apply one pound of actual nitrogen per 1,000 square feet.

When should I stop mowing the lawn in fall?

Continue to mow the lawn until the grass stops growing. The foliage of cool-season grasses, such as Kentucky bluegrass, stops growing when daytime high temperatures are consistently below 50 F. In central Iowa, bluegrass usually stops growing in early to mid-November. Once the foliage stops growing, the lawn mower can be put away for the winter.

Do I need to rake the leaves on my lawn?

Turfgrass plants use light, water and nutrients to



manufacture food. In fall, lawn areas beneath large trees are often completely covered with leaves. The leaf debris prevents the turfgrass plants from manufacturing and storing food prior to winter. A thick layer of leaves (little or no grass is visible) will need to be raked up and removed. It's possible to deal with a small amount of leaves (areas of grass are clearly visible) by shredding the leaves with a mulching mower. Small amounts of leaf debris will filter down into the grass.

Are broadleaf herbicides effective when applied during dry weather?

Broadleaf herbicides are most effective when applied to weeds that are actively growing. During prolonged periods of dry weather, some weeds are likely to curl up or wilt. An application of a broadleaf herbicide to drought stressed weeds likely will be less effective as wilted foliage will absorb less herbicide than healthy foliage.

Broadleaf herbicides can be applied from mid-September to early November in Iowa. In dry fall weather, wait for a good rain or irrigate the lawn before applying a broadleaf herbicide. One-half inch or more of water (either from rainfall or irrigation) will quickly revive most drought stressed weeds.

Root crops are popular in home gardens because they are easy to grow and produce an abundance of nutritious food in a small space. Iowa State University Extension horticulturists tell when to harvest parsnips, salsify and horseradish – roots that some consider to be winter vegetables because their flavor is not fully developed until the roots have been exposed to near-freezing temperatures. To have additional garden questions answered, contact the ISU Extension Hortline at 515-294-3108 or hortline@iastate.edu.

When should I harvest parsnips?

Parsnips should be harvested in November after exposure to several light freezes. The low temperatures in



fall convert starches to sugars, improving the parsnip's sweet, nut-like flavor. After harvest, trim off the foliage 1/2 inch above the roots and store the parsnips at a temperature of 32 degrees Fahrenheit and relative humidity of 95 to 98 percent.

Gardeners can also leave a portion of the crop in the ground over winter. After several light freezes, cover the parsnips with several inches of straw. Harvest the remaining crop in early spring before growth resumes.

When should I harvest salsify?

Harvest salsify in November after several light freezes. The cool fall temperatures enhance the oyster-like flavor of the roots. After harvest, trim off the foliage 1/2 inch above the roots and store the salsify at a temperature of 32 F and a relative humidity of 95 to 98 percent.

Salsify can also be left in the garden over winter and harvested in early spring before growth resumes.

When should I harvest horseradish?

The roots of horseradish make their greatest growth in late summer and early fall. To obtain the best crop, delay harvesting horseradish until late October or November.

Carefully dig the horseradish and cut off the foliage about 1 inch above the crown. Store horseradish in a refrigerator or root cellar at a temperature of 32 to 40 F and a relative humidity of 90 to 95 percent. When storing horseradish, keep the roots out of light. Light will turn the roots green.

Gardeners can also leave some horseradish in the ground over winter. Harvest the remaining crop in early spring before growth resumes.

When should I cut back my asparagus?

The asparagus foliage can be cut back to the ground after it has been destroyed by a hard freeze in fall. However, it is generally recommended that the dead foliage be allowed to stand over winter. The dead debris will catch and hold snow. Snow cover helps protect the asparagus crowns from extreme cold. Asparagus foliage allowed to remain in the garden over winter should be removed in late March or early April before the spears begin to emerge.

Several popular potted plants will bloom, if cared for properly, during the Christmas season. Iowa State University Extension horticulturists explain the steps to take from early October through November to ensure blooms in December. To have additional houseplant questions answered, contact the ISU Extension Hortline at 515-294-3108 or hortline@iastate.edu.

When should I plant an amaryllis bulb to have it in bloom at Christmas?

An amaryllis bulb usually blooms about six weeks after planting. Plant the amaryllis bulb in early to mid-November for spectacular blooms at Christmas. To



increase your odds of having an amaryllis in bloom at Christmas, pot up one amaryllis bulb in early November and a second one several days later.

How do I get a poinsettia to bloom for Christmas?

Poinsettias are short-day plants. Short-day plants grow vegetatively during the long days of summer and produce flowers when days become shorter in fall. In order for poinsettias to flower for Christmas, they must receive complete darkness from 5 p.m. to 8 a.m. each day from early October until the bracts show good color, usually around early December. (Most poinsettia varieties require eight to 10 weeks of short days to flower.) Gardeners can protect their plants from light by placing them in a closet or by covering with a cardboard box. When using cardboard boxes, cover any openings to insure complete darkness. Exposure to any kind of light between 5 p.m. and 8 a.m. will delay or possibly prevent flowering. During the remainder of the day, the poinsettias should be placed in a sunny south window. Keep the plants well watered and fertilize every two weeks with a dilute fertilizer solution during the forcing period. While poinsettias are difficult to flower in homes, proper care can reward home gardeners with a colorful plant for the holiday season.

How do I care for my Christmas cactus in fall?

Day-length and temperature control the flowering of the Christmas cactus. The Christmas cactus is a short-day plant. Plants will not bloom properly if exposed to artificial light at night. Flowers may also fail to develop if the plant is exposed to temperatures above 70 degrees Fahrenheit. Night temperatures of 60 to 65 F with slightly warmer daytime temperatures are ideal for flower formation. In early fall, place the Christmas cactus in a cool location that receives bright light during the day, but no artificial light at night. An unused bedroom or basement may have the proper environmental conditions. Keep the Christmas cactus a bit on the dry side in fall. A thorough watering every 7 to 10 days is usually sufficient. Continue to give the Christmas cactus good, consistent care during flower bud development. Moving the plant from one location to another, excessive watering or other changes to its care during flower bud development may cause the buds to drop off. The Christmas cactus can be moved and displayed in another room when the first flowers begin to open.

Perennials such as tuberous begonias, gladioli, cannas and dahlias are an integral part of many home landscapes. They put on excellent displays of color until a killing frost. Unfortunately, they will not survive our harsh winter weather outdoors and must be dug in the fall and stored indoors through the winter months. Cultural and winter storage

requirements for several commonly grown tender perennials are provided by ISU Extension horticulturists. To have additional questions answered contact the Hortline at 515-294-3108 or



hortline@iastate.edu.

How do I over-winter my gladiolus bulbs?

Carefully dig up the plants with a spade in late summer/early fall. Gently shake off the soil from the bulb-like corms. Then cut off the foliage 1 to 2 inches above the corms. Dry the corms for two to three weeks in a warm, dry, well-ventilated location. When thoroughly dry, remove and discard the old dried up mother corms located at the base of the new corms. Remove the tiny corms (cormels) found around the base of the new corms. Save the small corms for propagation purposes or discard them. Place the corms in mesh bags or old nylon stockings and hang in a cool, dry, well-ventilated location. Storage temperatures should be 35 to 45 degrees Fahrenheit.

How do I over-winter dahlias?

Several days after a killing frost, cut the plants back to within 2 to 4 inches of the ground. Carefully dig up the tuberous roots with a spade or shovel. Gently shake off the soil, then cut the stems back to the crown. Wash the tuberous roots to remove any remaining soil. Allow the tuberous roots to dry for about 24 hours. After drying, place the dahlia clumps upside down in boxes or other containers and cover them with vermiculite, peat moss or wood shavings. Store the dahlias in a cool (40 to 50 F), dry location.

How do I over-winter cannas indoors?

Cut the plants back to within 4 to 6 inches of the ground a few days after a hard, killing freeze. Then carefully dig up the canna clumps with a spade or garden fork. Leave a small amount of soil around the cannas. Allow them to dry for several hours. Afterwards, place the cannas in large boxes, wire crates or in mesh bags. Store the cannas in a cool (40 to 50 F), dry location.

How do I over-winter tuberous begonias?

Carefully dig up the tuberous begonias within a few days of a killing frost. Leave a small amount of soil around each tuber. Cut off the stems about 1 inch above the tubers. Place the tubers in a cool, dry area to cure for two to three weeks. After curing, shake off the remaining soil, then bury the tubers in a small box containing peat moss, vermiculite or sawdust. Store the tubers in an area with a temperature of 40 to 50 F. Do not allow the tubers to freeze.

How do I over-winter caladiums?

Carefully dig up the caladiums when the foliage droops and begins to yellow with the onset of cool fall temperatures or wait until after the first hard frost. Place the plants in a warm, dry location for one to two weeks to cure. Afterwards, cut off the dry foliage and bury the tubers in peat moss or vermiculite. Store the tubers in a cool (60 to 65 F) dry location.

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Protecting Trees and Shrubs from Rabbits

By Richard Jauron, Department of Horticulture

Rabbits are often portrayed as cute, furry creatures in books and movies. In the real world, however, rabbits can be destructive pests in the home landscape. In winter, rabbits often browse on young trees and shrubs. If feeding damage is extensive, trees and shrubs can be completely destroyed.

Trees and Shrubs Susceptible to Damage

Trees and shrubs that are often damaged by rabbits in winter include crabapple, apple, pear, redbud, honey locust, serviceberry, burning bush or winged euonymus, flowering quince, barberry, roses, and raspberries. Small evergreens (especially pines) are also vulnerable. However, nearly all small trees and shrubs are susceptible to damage when food sources are scarce and rabbit populations are high.

Type of Damage

Rabbits feed on the tissue between the bark and the wood. If rabbits remove the tissue down to the wood and go completely around the tree's trunk, the damaged tree is effectively girdled. Girdling destroys the tree as it disrupts the downward flow of food from the tree's foliage to the root system. Rabbits damage shrubs by chewing off small branches and girdling large stems.

Damage Prevention

The most effective way to prevent rabbit damage to trees and shrubs in the home landscape is to place chicken wire fencing or hardware cloth around vulnerable plants. To adequately protect plants, the fencing material needs to be high enough that rabbits won't be able to climb or reach over the fence after a heavy snow. In most cases, a fence that stands 24 to 36 inches tall should be sufficient. To prevent rabbits from crawling underneath the fencing, bury the bottom 2 or 3 inches below the ground or pin the fencing to the soil with u-shaped anchor pins. Small trees can also be protected by placing white spiral tree guards around their trunks. Since the weather in late fall in Iowa is unpredictable, it's best to have the protective materials in place by early to mid-November. After a heavy snow, check protected plants to make sure rabbits aren't able to reach or climb over the fencing or tree guards. If necessary, remove some of the snow to keep rabbits from reaching the trees or shrubs.

Damage may also be reduced by removing brush, junk piles, and other places where rabbits live and hide. Repellents are another option. Repellents discourage rabbit browsing because of their unpleasant taste or smell. Unfortunately, repellents aren't always effective and may need to be reapplied after a heavy rain or snow. It may also be helpful to reduce the rabbit population in the area by removing some of the rabbits with live traps.

Grass-Carrier Wasps

By Laura Jesse, Plant & Insect Diagnostic Clinic

If during fall cleaning you find a handful of dried grass blades tucked between your window screen and window it is a sign that you were lucky enough to host a family of grass-carrier wasps for the summer. The female grass-carrier wasp collects blades of grass and carries these grass clippings to a nest cavity she has selected. The nest looks

like a loose pile of brown grass clippings stuffed into a protected opening.

In nature the grass-carrier wasp nests are located in hollow stalks or stems of plants, galleries in wood, abandoned bee galleries and in vertical clay banks or bluffs. However, in the urban environment people who observe grass-carrier wasp nests find them in the sliding tracks of windows or in the space that is left between the screen or storm window and the house window frame. It's startling to be changing the screens or storm windows, or just opening the window and finding the grass clippings, often on the upper story of the house. See photo below.

After the nest is stuffed with grass the female adds tree crickets (*Oecanthus* sp.), a specialized food source for her offspring that will soon occupy the nest. The tree crickets are the 1-inch long, slender, light green insects found mixed into the grass-clipping nest. The wasp lays eggs on or near the tree crickets and the larvae feed on the paralyzed prey. After only a few days the wasp larvae are fully-grown and spin papery cocoons. There are one or two generations per year, the wasps spending the winter as a prepupal larva within the cocoon and emerging the following year.

Grass-carrier wasps are solitary. That means each nest is the effort of an individual female. There are no workers to help with nest construction and larval rearing. As a rule solitary wasps do not aggressively defend their nests. They are capable of stinging but will do so only if harassed or handled.

No special controls for grass-carrier wasps are necessary. Discard the nests as they are discovered (usually when cleaning windows or changing screen windows). Chemical treatment is not necessary. Prevent future nesting in the area by installing tighter fitting windows and screens or by plugging gaps and openings leading to interior cavities.



Female grass-carrier wasp carrying a cricket to her nest. Photo by Clint Kelly, Iowa State University



Grass clippings, paralyzed food provisions and grass-carrier wasp larva. Photo by Shellie Specter.



Typical collection of grass clippings assembled by grass-carrier wasp.

Plant and Insect Diagnostic Clinic Update - October 12, 2011

By Laura Jesse and Erika Saalau,
Plant & Insect Diagnostic Clinic
Insects

Now is the time the **solider beetles** are noticed on goldenrod and other fall-blooming flowers. See the photo below and our online article at the [Plant & Insect Diagnostic Clinic website](#). Soldier beetles are harmless predators that are closely related to the lightningbugs and can be distinguished by the absence of a light on the underside of the abdomen.

Now is also the time to see our common accidental invaders: the boxelder bugs, multicolored Asian lady beetle and pine seed bugs. Early indications are that all will be at low to moderate numbers compared to some years when we are overrun with invaders. The photo below shows the **pine seed bug** with the distinctive zig-zag stripe across the back. This one is featured since it is **NOT** the **brown marmorated stink bug**, the newest invasive species that we are expecting and watching for. Let us know if you find any stink bugs with banded antennae as shown in the photo below.

The **giant ichneumon wasps** (*Megarhyssa* spp.) are spectacular wasps and always a treat to see. See photo below. Giant ichneumonids are harmless and beneficial parasitoids. The female uses her long ovipositor to deposit eggs inside the tree where her offspring will parasitize horntail wasp larvae, wood-borers found in dying and stressed trees.

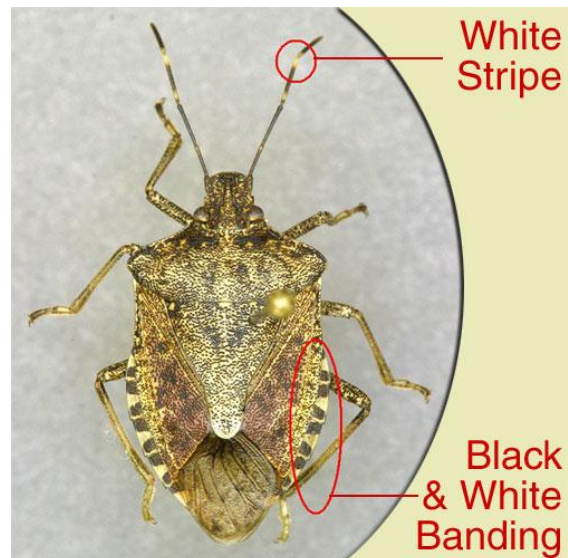


Goldenrod soldier beetle.

Photo by A.J. Davis.



Western conifer seed bug, AKA pine seed bug, showing the zig-zag stripe on abdomen.



Reproducing populations of brown marmorated stink bugs have not yet been found in Iowa. Photo from University of Kentucky.



Giant ichneumon wasp photographed by Jodie Schreiber, North Liberty, IA.

Raspberry Leaf Spot

By Erika Saalau, Plant & Insect Diagnostic Clinic

Raspberry leaf spot is perhaps the most common raspberry disease we see in the clinic. Early infections look like dark green circular spots on new leaves. As leaves get older, spots become light tan to gray (see picture below). Severe infections cause leaves to fall off in late summer and early fall and this may not only reduce your raspberry harvest, but it also makes plants more prone to winter injury.

Raspberry leaf spot is caused by a fungus called *Sphaerulina rubi*. This fungus overwinters on leaves and canes which then serve as sources of infection in spring. Young leaves are highly susceptible to this disease, but older spots or lesions (see picture) produce spores that are readily spread by rain or wind to new tissues throughout the entire season.

Cultural measures that increase air circulation are probably the most effective way to control this disease. Since this fungus thrives under high humidity conditions, promoting faster drying of leaves and canes after rain can reduce the chances of infection. The easiest tactic is to start off with properly spaced plants between and within rows, and in established plantings, avoid too many canes per plant. Also, reduce the sources of infection by pruning out old fruiting canes and removing them from the field.

A fungicide program for Gray mold can be effective to control this disease. Also, timing applications and product recommendations can be obtained from the [Midwest Small Fruit and Grape Spray Guide](#).



Infected raspberry leaves showing gray-tan spots caused by *S. rubi*.



Infected raspberry leaves with raspberry leaf spot. Lesions may fall out creating a shot-hole appearance.



S. rubi spores produced in lesions are spread by rain and wind-driven rains to young tissues.



ISU Extension, Polk County

The 3rd Annual Fall Horticulture Conference will be held Saturday, November 5. The conference will feature eight presenters that will speak about many topics including art work in the garden, trees and perennial flowers.

Seating is limited, so register early!
 Fall Horticulture Conference
 Saturday, November 5, 2011
 8:00 a.m. - 3:40 p.m.

ISU Extension, Polk County
 1625 Adventureland Drive,
 Suite A
 Altoona, Iowa 50009
 Cost: \$50.00, includes
 lunch
*Registration form and
 payment is required to
 secure your attendance.*



Registration Form, Agenda and Speaker Bios can be found at:

www.extension.iastate.edu/polk/news/2011hortconf.htm

The fees for service will be used to off-set direct expenses and to support the Agriculture and Natural Resources - Polk County Extension Program.

Iowa State University Extension programs are available to all without regard to race, color, age, religion, national origin, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Director of Equal Opportunity and Compliance, 3280 Beardshear Hall, (515) 294-7612.

Gardening Tip:

Now is the time to cover strawberries with several inches of straw mulch to protect flower buds during winter. If you have any tips that will help other gardeners, please email them to me at gordycat24@aol.com. ***Please put the words Gardening Tip in the subject line*** and I will put them in upcoming newsletters. Thanks for sharing your tips. **Mary Ann Emery**

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