Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Late Summer and Early Fall Plantings

By Richard Jauron
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Creating a beautiful, functioning landscape depends on putting the right plant in the right place at the right time. Iowa State University Extension horticulturists describe the correct plants and care to give late summer and early fall plantings. To have additional questions answered, contact the experts at hortline@iastate.edu or call 515-294-3108.

Is fall a good time to plant trees and shrubs?

Late summer and fall is an excellent time to plant balled and burlapped and container-grown trees and shrubs. Evergreens should be planted by early October in Iowa. Evergreens retain their foliage (needles) through winter. Evegreens need adequate time to get established at their new site before the onset of winter to prevent desiccation injury. Deciduous trees and shrubs drop their leaves in fall and go dormant. Deciduous trees and shrubs can be planted up to mid- to late November.

Late summer and fall planted trees and shrubs should be watered on a regular basis during the remainder of the year. Periodically check the moisture status of the plant's root-ball. Water newly planted trees and shrubs when their root-balls begin to dry out. Continue watering until the ground freezes in winter.

When is the best time to sow grass seed?

Late summer (mid-August to mid-September) is the best time to seed new lawns and overseed existing lawns.

Late summer planting has several advantages over spring seeding. The seeds of cool-season grasses germinate quickly in the warm soil of late summer. The warm days and cool nights of early fall promote rapid turfgrass growth. The growing grass also has less competition from weeds as few weed seeds germinate in the fall.

After seeding, keep the upper 1 inch of soil moist with frequent, light applications of water. Most turfgrasses should germinate in two to three weeks if the seedbed is kept uniformly moist. Gradually reduce the frequency of watering, but water more deeply, when the turfgrass reaches a height of 1 to 2 inches. Mow the grass when it reaches the height of 3 to 3 ½ inches.

Is fall a good time to plant chrysanthemums?

Unfortunately, fall planted garden mums usually don't survive the winter even when given winter protection. Flowering mums purchased in late summer or early fall should be regarded as temporary additions to the landscape. Spring is the best time to plant mums in Iowa. Spring planted mums have the entire growing season to get established and usually survive the winter much better than those planted in fall.

Can perennials be planted in fall?

Late summer and early fall is an excellent time to plant many perennials. It also is a good time to move or divide perennials, such as peony, daylily, garden phlox and oriental poppy. Perennials planted in late summer or early fall should be mulched with 4 to 6 inches of straw, pine needles or other materials in late fall. Mulching

helps prevent repeated freezing and thawing of the soil that can heave plants out of the ground. Plants heaved out of the soil may be severely damaged or destroyed due to the drying of the exposed plant crowns and roots.

When is the best time to plant peonies?

Peonies are available as potted and bare root plants. Potted peonies are often available at garden centers and can be planted anytime during the growing season. Bare root peonies are best planted in late summer/early fall (September in Iowa). When planting bare root peonies, position the "eyes" (buds) 1 to 2 inches below the soil surface.

Emerald Ash Borer Confirmed in Des Moines County Iowa

DES MOINES – Emerald Ash Borer (EAB) has been positively identified in a residential tree in the city of Burlington in Des Moines County, making this the second location where the invasive beetle has been found in Iowa. It initially had been found on Henderson Island in the Mississippi River in Allamakee County in 2010.

State Entomologist Robin Pruisner said the Iowa Department of Agriculture and Land Stewardship, along with USDA, will be issuing a quarantine for Des Moines County in the near future. A quarantine by state and U.S. agriculture departments means that hardwood firewood, ash logs and wood chips cannot be moved out of the area without a permit.

Pruisner said all Iowans are strongly cautioned not to transport firewood across county or state lines, since the movement of firewood throughout Iowa or to other states poses the greatest threat to quickly spread EAB even further. Most EAB infestations in the United States have been started by people unknowingly moving infested firewood, nursery plants, or sawmill logs. The adult beetle also can fly short distances, approximately 2 to 5 miles.

EAB kills all ash species by larval burrowing under the bark and eating the actively growing layers of the trees. EAB is now considered to be one of the most destructive forest pests ever seen in North America.

EAB is native to eastern Asia, and was detected in the United States near Detroit, Mich., in 2002. Since 2003, the Iowa EAB Team has been conducting annual surveys to determine whether and where this pest is in Iowa. The team includes officials from the Iowa Department of Agriculture and Land Stewardship, Iowa State University Extension and Outreach, the Iowa Department of Natural Resources, USDA Animal Plant Health Inspection Service (APHIS) and the USDA Forest Service.

"Treatments against EAB are too late this year. If you are within 15 miles of Burlington, Iowa, and have a healthy ash tree, preventive treatments can be made mid-April to mid-May 2014," said ISU Extension and Outreach Entomologist Mark Shour. For more details, see ISU Extension and Outreach publication PM 2084, www.extension.iastate.edu/Publications/PM2084.pdf. Ash is one of the most abundant native tree species in North America, and has been heavily planted as a landscape tree in yards and other urban areas. According to the USDA Forest Service, Iowa has an estimated 52 million rural ash trees and approximately 3.1 million more ash trees in urban areas. Burlington has about 700 ash trees in the public right-of-way and an estimated 2,000 residential trees.

To learn more about EAB and other pests that are threatening Iowa's tree population, please visit www.IowaTreePests.com. Or, for more information contact any of the following members of the Iowa EAB Team:

- Robin Pruisner, State Entomologist, 515-725-1470, Robin.Pruisner@IowaAgriculture.gov
- Tivon Feeley, DNR Forest Health Coordinator, 515-281-4915, Tivon.feeley@dnr.iowa.gov
- Emma Hanigan, DNR Urban Forest Coordinator, 515-281-5600, emma.hanigan@dnr.iowa.gov
- Jesse Randall, ISU Extension Forester, 515-294-1168, Randallj@iastate.edu
- Mark Shour, ISU Extension Entomologist, 515-294-5963, mshour@iastate.edu
- Laura Jesse, ISU Extension Entomologist, ISU Plant and Insect Diagnostic Clinic, 515-294-0581, ljesse@iastate.edu
- Donald Lewis, ISU Extension Entomologist, 515-294-1101, drlewis@iastate.edu.
- Jeff Iles, ISU Extension Horticulturist, 515-294-3718, iles@iastate.edu

Contacts:
Dustin Vande Hoef, Iowa Department of Agriculture and Land Stewardship, 515-281-3375
Kevin Baskins, Iowa Department of Natural Resources, 515-281-8395
Laura Sternweis, Iowa State University Extension and Outreach 515-294-0775

Magic in the Garden

By Richard Jauron
Department of Horticulture
Iowa State University

One of the more intriguing plants in the garden is Lycoris squamigera. Common names include magic lily, resurrection lily, surprise lily, and naked lady.

Lycoris squamigera is a member of the Amaryllidaceae family. It is native to Japan. The genus name Lycoris comes from a Roman actress and mistress of Mark Antony.

The life cycle of Lycoris squamigera is rather unique. Its long, strap-shaped leaves emerge in spring, but die back to the ground by early summer. Pink, lily-like flowers are borne on 18- to 24-inch-tall, leafless, flower stalks in late summer. Each flower stalk produces 4 to 12 flowers.

Lycoris squamigera performs best in partial shade to full sun in well-drained soils. Plant bulbs 5 to 6 inches deep and 6 to 8 inches apart. Since the dying foliage is rather unsightly, interplant the magic lily with other perennials. Lycoris squamigera multiples quickly via daughter bulbs or offsets. Dig and separate bulbs every 4 to 5 years. Bulbs can be dug after the foliage dies back in early summer or after flowering in late summer. Extra bulbs can be given to friends and neighbors.

Bats!

By Dr. Jim Pease, Emeritus
Dr. Rebecca Christoffel
Extension Wildlife Specialists
(ISU - Retired and ISU-Current)

August, already? If the calendar didn't tell me so, I can tell by the number of bat calls coming in on my phone. About every third call is related to bats: bats in churches, in homes, in barns.

While everyone is concerned about them, the tenor of the calls has definitely changed. Ten years ago, every caller asked, "How do I kill them?" Now, only rarely do I hear that question. People know bats are extremely valuable in insect control. We want them flying around outside gobbling mosquitoes, crop damaging insects, and others. We've even learned to construct and put up bat houses for them. We just don't want to share their living space with them. Fair enough. I can live with that -- and so can the bats!

Eight species of bats are found in the state of Iowa. One of them, the Indiana bat, is a federally endangered species, exceedingly rare. Five species -- the northern myotis, the silver-haired, the eastern pipistrelle, the red, and the hoary bat -- are either solitary or are found primarily in dense woodland areas near water. As a result, people rarely encounter them. Only two bats, the big brown and little brown, commonly use buildings in the summer for colonies. Only the big brown bat uses buildings in winter. It is mainly these two species that bring the deluge of phone calls to this and other offices.

There are no state or federally registered baticides available for use against bats. Even if there were, one would still have to locate and close up entrance holes to prevent other bats from recolonizing the same area in a building. Like almost all other animal species, Iowa law protects bats. While homeowners are allowed to protect their property, repellents are largely ineffective, including those expensive "sonic" or "ultrasonic" devices and the relatively inexpensive mothballs. Thus, excluding bats from buildings is the only way to deal with them. Understanding some bat habits is the key to successful exclusion.

First, bats are nocturnal. They emerge from their roosts at dusk each evening, searching for food and water. Thus, exclusion activities must be done after they've emerged, NOT during the daytime. Blocking entrances during the day only guarantees more severe problems, increasing the likelihood that they will come down through the walls in search of a way out. It also increases the chance that they will die a slow and painful death, something few people would wish on any animal.

Second, bats follow air currents. Any spaces--say, your attic and a bedroom--that have different temperatures and are connected by a crack or hole, automatically have airflow between them. Bats simply follow those air currents. Blocking those air currents is the key to successful bat exclusion.

Third, September is an excellent time to do the exclusion. Bats are mammals and often form maternal colonies, a mother and her one or two young hanging together with dozens of other mothers and young. Since young bats are naked and blind, mothers leave them behind each night to seek food and water, returning later in the night to nurse them. If exclusion is done prior to September, you may simply exclude the mothers and condemn the young to starvation and death. By waiting until September, you can be assured that the young are going on the evening flights with their mothers.

Finding the entrance can be a family affair. Take lawn chairs, your favorite drinks, and a flashlight and sit outside in your yard about sundown. Watch for emerging bats. Check the obvious places first: around the

chimney, gable vents, or roof vents. Don't forget the not-so-obvious places also: under the eaves, behind the rain guttering, under torn shingles. All these are common entrance sites and indicate that some repair is in order. Some buildings have more than one entrance site.

The next day, check the entrance points more closely. Sometimes, simply replacing a rusted screen, a broken window, or caulking some flashing is all that is required. Other times, more extensive repairs may be necessary. You can determine whether or not your skills are up to the challenge or if you need to call in a carpenter, mason or roofer. Remember, however, that no repair or blocking should be done in the daytime since you will only trap the sleeping bats inside.

The problem, of course, is finding a home repair person willing to climb up on your roof or elsewhere after dark. While some may do this, an alternative is to create a oneway door so the bats can get out and not back in. A simple oneway door can be created with one-half-inch mesh bird netting (available at garden stores) or with screen wire. Let's say, for example, the entrance is a crack one half inch wide and 6 inches long. Cut a piece of netting or screen. Place it over the entrance crack so that the entrance is in the upper half of the net/screen. Use duct tape to tape the top and two sides of the screen to the building, leaving the bottom edge open and just loose enough for the bats to squeeze out.

Bats will emerge that evening, hit the screen, crawl around until they find the bottom loose, and then fly out. When they return, they return to where the air current is--the crack--not to the bottom of the screen. If you leave this up for 2-4 days, you can be assured that all bats are out and the repairs can be made, this time during the daylight hours.

Bats are our only flying mammals. All Iowa bats are insectivorous, finding insects using sophisticated sonar. Each bat can devour hundreds of flying insects each night. They are an interesting and valuable part of Iowa's biodiversity, one that we can live with, even if not in the same dwelling.

Powdery Mildew in Curcurbits

By Michelle Grabowski, University of Minnesota Extension Educator

Powdery mildew, caused primarily by the fungus Podosphaera xanthii, infects all cucurbits, including muskmelons, squash, cucumbers, gourds, watermelons, and pumpkins. In severe cases, powdery mildew can cause premature death of leaves, and reduce yield and fruit quality.

Identification

Powdery mildew is first evident as pale yellow leaf spots. White powdery spots can form on both upper and lower leaf surfaces, and quickly expand into large blotches which ultimately can cover entire leaf, petiole, and stem surfaces. When the majority of the foliage is infected, the plant is weakened and the fruit ripens prematurely.

Important biology

Powdery mildew infections are favored by humid conditions with temperatures around 68-81F. In warm, dry conditions, new spores are produced and easily spread the disease. Symptoms of powdery mildew are often first noticed mid to late summer in Minnesota. The older mature leaves are more susceptible and will be infected first. Spores produced in leaf spots are blown by the wind to infect other leaves. Under favorable conditions, powdery mildew can spread very rapidly, often resulting in complete leaf coverage.

Although powdery mildew primarily infects leaves and vines, infections occasionally occur on cucumber or melon fruit. Squash fruit are not directly infected. Regardless of direct infection of the fruit, fewer and smaller fruit are produced on infected plants. Reduced fruit quality occurs due to increased sunscald, incomplete ripening, poor storability, and poor flavor.

Densely planted vines, plants crowded by weeds, plants in shaded sites, and over fertilized plants are more likely to be infected with powdery mildew.

Management

- Plant varieties with complete or partial resistance to powdery mildew.
- Apply fertilizer based on soil test results. Avoid over applying Nitrogen.
- Provide good air movement around plants through proper spacing, staking of plants and weed control.
- If susceptible varieties are being grown in an area where powdery mildew has resulted in yield loss in the past, fungicide may be necessary.
- Once a week examine 5 mature leaves for powdery mildew infection (in large plantings, repeat at 10 different locations in the field).
- Apply fungicides when a single spot of powdery mildew is first found.
- Home gardeners can apply sulfur products to both the upper and lower surface of the leaves.

Commercial growers should refer to the Midwest Vegetable Production Guide for pesticide recommendations.

Upcoming Horticulture Events of Interest:

Mills County Farmers Markets

Vendors offering locally-grown garden and orchard produce, baked goods, eggs, crafts, plants, etc.

Glenwood: Wednesdays, June 6 to Sept. 12,
4:00 PM – 7:00 PM, Location - Glenwood Lake Park
Silver City: Saturdays throughout the summer
8:00 AM – 11:30 AM, Location - Silver City Park
Malvern: Saturdays throughout the summer
4:00 PM – 6:00 PM Location - Park beside the Library

Summer Gardening Webinars

Date: Tuesday, August 13 and September 3
Time: 6:30 – 8:30 PM
Location: Mills County Extension office, Malvern

August 13 - Jeff Iles - "Diagnosing Drought Damage, Flood Damage, and Other Abiotic Stress Injury on Landscape Trees & Shrubs"
September 3 – Mike Baron – "Efficient Home Landscape Irrigation"

Fruit and Vegetable Field Day

Date: Monday, Aug 12
Time: Registration 1:30 PM
Location: ISU Horticulture Research Station
Ames, IA (3 miles north of Ames on Hwy. 69)
Cost: $25 per person (supper included)

Registration form: http://www.aep.iastate.edu/hort/

Vegetable Grilling Demonstration at Glenwood's Giving Garden with Chef Corey Hall

Date: Monday, Aug 19
Time: 6:00 - 7:00 PM
Location: 24955 Ingrum Ave, Glenwood - behind McCormick Station

Pasture Improvement Walk

Weed/forage management & evaluation of 2013 forages. Dinner provided by Mills/Montgomery Cattlemen

Date: Thursday, August 29
Time: 6:00 - 8:30 PM
Location: 39662 Marh Ave, Emerson, IA (SW of Emerson)

Call ISU Mills County Extension and Outreach to register, 712-624-8616 or mdlsmith@iastate.edu

Ask the ISU Extension Gardening Expert

When should I harvest my potatoes?
Potatoes can be harvested when the tubers are small and immature ("new" potatoes) or when the crop is fully mature. "New" potatoes are dug when the plants are still green and the tubers are greater than 1 inch in diameter. New potatoes should be used immediately, as they do not store well. Potatoes grown for storage should be harvested after the vines have died and the crop is mature. To check crop maturity, dig up one or two hills after the plants have died. If the skins on the tubers are thin and rub off easily, the crop is not fully mature. Allow the crop to mature for several more days before harvesting the potatoes.

How should I store my potatoes?
After harvesting the potatoes, cure the tubers at a temperature of 50 to 60 F and high relative humidity (85 to 90 percent) for two weeks. The curing period allows minor cuts and bruises to heal. Thickening of the skin also occurs during the curing process.
Once cured, store potatoes at a temperature of 40 F and relative humidity of 90 to 95 percent. Store the crop in a dark location, as potatoes turn green when exposed to light. If storage temperatures are above 50 F, the tubers may begin to sprout in two or three months. When stored below 40 F, potatoes develop a sugary, sweet taste. Sugary potatoes can be restored to their natural flavor by placing them at room temperature for a few days prior to use. Do not store potatoes with apples or other fruit. Ripening fruit give off ethylene gas, which promotes sprouting of tubers.

There are large, green caterpillars on my tomato plants. What should I do?
The large, green caterpillars are probably tomato hornworms. Tomato hornworms are bright green, up to four to five inches long and have red or black, horn-like projections on their rear ends. After feeding, hornworms move to the soil where they pupate and spend the winter. The following summer the pupae transform into five-spotted hawk moths and start the cycle over. Tomato hornworms feed on the leaves and fruit of tomatoes and other vegetables including eggplant, potatoes and peppers. Often the best control option for home gardeners is to simply pick the caterpillars off by hand and destroy them. Another control option is to use a biological insecticide, such as Bacillus thuringiensis (Bt), or a synthetic home garden insecticide. As always,

carefully read and follow label directions when using pesticides.

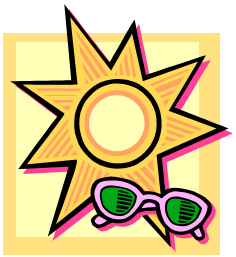
How often should I water my garden?
A deep watering once a week is usually adequate for fruit, vegetable and flower gardens. When watering the garden, water slowly and deeply. Moisten the soil to a depth of 8 to 10 inches. Most annuals, perennials, vegetables and small fruits perform best when they receive 1 to 1 ½ inches of water per week (either from rain or irrigation).

Master Gardener Training Offered

By Nancy Crews
Mills County Extension and Outreach

Would you like to become an Iowa Master Gardener and volunteer in our community? Whether you are a long time gardener or a novice, you are welcome to join our group! A new series of training classes will be offered by Iowa State University at the Mills County Extension office in Malvern beginning Tuesday, September 24 and running consecutive Tuesdays through November 12. The registration deadline is September 13. The cost for the training is $195. The Mills County MG's are offering scholarships for participants. For more information and to register for the training contact Nancy Crews at the ISU Extension office at 712-624-8616 or ncrews@iastate.edu

AUGUST GARDENING TO D0 LIST



- Harvest, dry and store herbs for later use. Many herbs can be frozen very easily in ice cube trays.
- Certain pesticides have a waiting period of several days between the time of last spray and harvest. Read and follow directions on all pesticide labels before applying them to vegetable crops. Wash all produce thoroughly before use.
- Moisten and turn your compost pile on a regular basis. Do not add weeds with mature seed heads to compost piles. Most home compost piles do not reach a high enough temperature to kill the weed seeds.
- Continue deadheading plants to prolong bloom, prevent unwanted seedlings, and improve the overall appearance.
- Water tomatoes consistently to avoid problems with splitting and blossom-end rot.
- When the stalk tips of onions yellow, fold down the stalks just above the bulbs to hasten ripening and produce larger bulbs.
- Plant seeds of radish, lettuce, and spinach for a fall harvest.
- Place orders for fall planting of spring-flowering bulbs.
- Raise the mower blade to 3 inches to prevent injury to the grass during summer heat.
- In mid to late August, remove the blossoms and new growth on tomatoes to encourage ripening of existing tomatoes.
- Add water to ponds and water features as needed in dry, hot weather.
- Pick up and destroy windfall apples to reduce pest populations.

Resources for Horticulture information

ISU's Hortline at (515) 294-3108
(Monday-Friday, 10 a.m.-noon, 1-4:30 p.m)

ISU/Mills County Extension: 712-624-8616
www.extension.iastate.edu/mills/yardgarden.htm

Iowa State University Publications

NCR 0025 Lawn Weeds and Their Control ($7.25)
IDEA 2 Small Fruits: Insect and Disease Management for Backyard Fruit Growers in the Midwest
PM 453 Fruit Cultivars for Iowa
PM 0819 Planting a Home Vegetable Garden
PM 534 Planting & Harvesting Times for Garden Vegetables (Free)
PM 1890 Potatoes
PM 2084 Emerald Ash Borer ManagementOptions

HorticulturePublications on-line
https://www.extension.iastate.edu/store/ListCategories