Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Hibiscus for Iowa Gardens

By Cindy Haynes
Department of Horticulture
Iowa State University

Growing Hibiscus can be confusing to Iowa gardeners because the three most common species vary greatly in flower, habit and cold hardiness. But all three are worthy of consideration in the outdoor or indoor landscape.

The Rose-of-Sharon or Althea Shrub (Hibiscus syriacus) is a woody hibiscus that is blooming beautifully right now. This is the tallest of the 3 hibiscus species, often reaching 6 or 7 feet. Flowers are 3-4 inches in diameter and are borne by the hundreds starting in mid to late summer. Flowers can be single or double, and are usually pink, red, lavender/blue, or white, sometimes with a contrasting eye or center. Plants thrive in full sun and well drained soils. Since their cold hardiness is limited to zone 5, there are reliable bloomers in protected locations in central and southern Iowa.

Another hibiscus that tolerates Iowa winters is the Hardy Hibiscus or Rose Mallow (Hibiscus moscheutos). Unlike the Rose-of-Sharon, this hibiscus dies back to the ground every winter just like other herbaceous perennials. The plant habit can also be considerably smaller, with many of the new cultivars staying under 5 feet. But what it lacks in stature, it more than makes up for in flower size. Flowers are up to 12" wide and colors include red, pink, plum, mauve, white, and lavender. Contrasting centers or eyes are also common with cultivars of this species. Like all hibiscus, Rose Mallow thrives in sun. But unlike the Rose-of-Sharon, it tolerates moist soils. In fact, it is native to marshy areas of the US. Cultivars vary greatly in leaf size, leaf dissection, leaf color, flower color, flower size, and mature height -so read the label carefully to find one that will match your preferences and landscape space. When in flower, rose mallow will give the landscape a tropical feel without the worry of winterkill. They do, however, take a while to emerge each spring. Don't worry if they are a bit tardy with their debut - simply be patient and they should appear by June.

Want something really tropical looking? Look no further than Tropical Hibiscus (Hibiscus rosa-sinensis). This is the species found throughout Hawaii and other warm winter locales. It has brilliant orange, pink, red, yellow, white, and lavender flowers. Flowers can be single or double; have frilled petals, and sometimes contrasting eyes or centers. Both the flowers and the leaves tend to be smaller than those of hardy hibiscus and are always lustrous and richly colored. Tropical hibiscus is often sold as a patio or container plant in the spring and will not survive an Iowa winter outdoors. Plants are usually brought indoors in September as the temperatures start to drop into the 40's and 50's. Carefully inspect plants for insects (especially white-fly) before bringing them indoors. Remove any insects that are present with a good wash with an insecticidal soap solution. Plants perform best outdoors in summer in full sun to part shade and require frequent moisture and fertilizer. Once brought indoors, they need bright, direct light to maintain a full complement of leaves. Long days (and short nights) are required to keep plants in flower throughout the winter months.

Control of Foliar Diseases on Tomatoes

By Richard Jauron
Department of Horticulture
Iowa State University

Septoria leaf spot and early blight are common foliar diseases of tomatoes in home gardens. Fungal diseases overwinter on plant debris in the soil. Fungal spores are splashed onto plant foliage by raindrops or splashing water and invade the plant tissue when leaf surfaces are wet. Rainy weather in spring and early summer favors development of foliar diseases on tomatoes.

Little can be done to control foliar diseases on tomatoes in the current growing season. However, good cultural practices can help prevent foliar diseases from reoccurring in future years. This fall, carefully remove as much of the tomato debris from the garden as possible and destroy it.

Plant tomatoes in a different location in the garden next year. Rotate crops so that tomatoes and other solanaceous crops (potatoes, peppers, and eggplants) are not grown in the same area for 3 or 4 years. A 3 or 4 year rotation may not be feasible for gardeners with small vegetable gardens. However, small plot gardeners should rotate as much as possible. There is no home garden treatment that effectively destroys the disease pathogens in the soil.

When planting tomatoes, space plants approximately 3 feet apart. Wide plant spacing increases air movement and promotes rapid drying of plant foliage.

Grow tomato plants in wire cages or train them to stakes. The foliage of tomatoes growing in wire cages and those trained to stakes dries more quickly than those sprawling on the ground.

In early June, apply a 2- to 3-inch-layer of mulch around each tomato plant. Shredded leaves, dry grass clippings, and straw are excellent mulches. The mulch reduces the splashing of fungal spores onto plant foliage. Mulching tomato plants in early June allows the soil to warm up in spring.

Avoid wetting tomato foliage when watering. Apply water directly to the ground around plants with a soaker hose, slow running hose, or watering can. If a sprinkler must be used, water in the morning so the foliage dries quickly.

While cultural practices can help control foliar diseases of tomatoes, fungicides may also be needed. Apply fungicides, such as chlorothalonil, at regular intervals beginning 3 to 4 weeks after planting. Thorough coverage is essential. Be sure to spray both the upper and lower leaf surfaces as well as the centers of the plants. Spray to the point of runoff.

Septoria leaf spot appears first on lower leaves.

Pears

By Richard Jauron, Willy Klein
Department of Horticulture
Iowa State University

Perfectly ripe pears are a luscious treat. Horticulturists with Iowa State University Extension and Outreach answer questions about when to harvest and how to ripen and store pears to have the most desirable fruit.

When should I harvest pears?

Pears should not be allowed to ripen on the tree. If the fruit are left on the tree to ripen, stone cells develop in the fruit, giving the pears a gritty texture.

Tree-ripened fruit also will be poorly flavored. Harvest pears when the color of the fruit changes from deep green to yellow green. The fruit will still be firm, not soft, at harvest.

How do I ripen pears?

Pears should be ripened indoors at a temperature of 60 to 70 F. The ripening process should take seven to ten days. To speed up ripening, place pears in a tightly sealed paper bag. The fruit give off ethylene gas, which accumulates in the bag and promotes ripening.

How do I store pears?

For long-term storage, refrigerate unripened pears at a temperature of 30 to 35 F. Pears may be stored for approximately one to three months. Remove stored fruit about one week prior to intended use.

There are tan-colored, rough spots on the surface of my pears. Is it possible to prevent this from occurring?

Russeting is probably responsible for the tan-colored spots on your pears. Russeting also develops on the surface of apples. While affected fruit are not attractive, russeting doesn't affect the eating quality of the fruit.

Several factors may be responsible for russeting. High humidity, rainfall or heavy dew, cold temperatures and use of certain fungicides may induce russeting. Genetics also play a role in russeting. Some pear cultivars are more likely to develop russeting than others. Since most factors responsible for russeting are beyond our control, little can be done to prevent its occurrence.

Emerald Ash Borer Confirmed in Boone County Iowa

DES MOINES – (August 4, 2014)

Two adult Emerald Ash Borer (EAB) beetles have been collected from a trap in a residential tree in Boone and have been positively identified as EAB by a federal identifier. The trap was placed in the tree this summer after suspect galleries were found in an ash tree branch that fell during a storm. Iowa now has 12 infested counties after the insects found in Boone.

A statewide quarantine restricting the movement of hardwood firewood, ash logs, wood chips and ash tree nursery stock out of Iowa into non-quarantined areas of other states was issued on Feb. 4, 2014 and remains in place.

"The Iowa EAB team continues to respond to reports of suspected infestations as we work to monitor its movement and hopefully slow the spread. Iowans are again reminded to not move firewood as that is the quickest way to start a new infestation," said State Entomologist Robin Pruisner of the Iowa Department of Agriculture and Land Stewardship.

The city of Boone Parks Department has already taken several steps to prepare for a potential infestation of the EAB. They have inventoried 100 percent of the street trees in the community and are assessing the condition of ash trees, as well as all other trees, in the right-of-way. The city council established funding for removal of street trees and the purchase of specialized equipment to chip large diameter trees.

Boone officials have made information available for private property owners to help them address the potential of ash tree infestation on their own property at boonegov.com/eab.

The Iowa EAB Team provides EAB diagnostic assistance to landowners and includes officials from Iowa Department of Agriculture and Land Stewardship (IDALS), Iowa State University Extension and Outreach, the Iowa Department of Natural Resources (DNR), USDA Animal Plant Health Inspection Service and the USDA Forest Service.

The Iowa EAB Team strongly cautions Iowans not to transport firewood across county or state lines, since the movement of firewood throughout Iowa or to other states increases the risk of spreading EAB infestations. Most EAB infestations in the United States have been started by people unknowingly transporting infested firewood, nursery plants or sawmill logs. Besides being transported by vehicle, the adult beetle can also fly short distances of approximately two to five miles.

With the exception of trunk injection, the window has closed for using other preventive methods against emerald ash borer this year. Trunk injections can be done by certified pesticide applicators until Sept. 1, 2014. Other control measures (soil injection, soil drench and basal trunk sprays) will need to wait until mid-April to mid-May 2015. This gives people the opportunity to have landscape and tree service companies to bid on work, and for the landowner to review these bids before next spring.

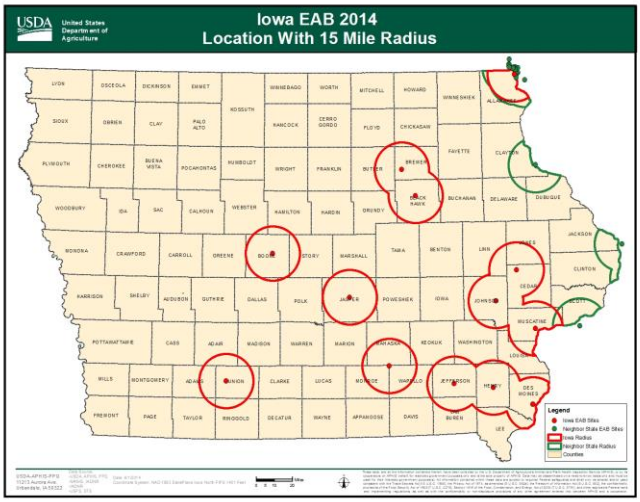
Please contact Iowa EAB Team members to have suspicious looking trees checked in counties not currently known to be infested. The State of Iowa will continue to track the movement of EAB on a county-by-county basis. Before a county can be officially recognized as infested, proof of a reproducing population is needed and an EAB must be collected and verified by USDA entomologists.

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

- Robin Pruisner, IDALS State Entomologist, 515-725-1470, Robin.Pruisner@IowaAgriculture.gov
- Paul Tauke, DNR State Forester, 515-242-6898, Paul.Tauke@dnr.iowa.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
- Mike Kintner, IDALS, 515-725-1470, Mike.Kintner@IowaAgriculture.gov
- Jesse Randall, ISU Extension and Outreach Forester, 515-294-1168, Randallj@iastate.edu
- Mark Shour, ISU Extension and Outreach Entomologist, 515-294-5963, mshour@iastate.edu
- Laura Jesse, ISU Extension and Outreach Entomologist, ISU Plant and Insect Diagnostic Clinic, 515-294-0581, ljesse@iastate.edu
- Donald Lewis, ISU Extension and Outreach Entomologist, 515-294-1101, drlewis@iastate.edu
- Jeff Iles, ISU Extension and Outreach Horticulturist, 515-294-3718, iles@iastate.edu

- Luke Nelson, Boone City Administrator, 515-432-4211 ext.103, lnelson@city.boone.ia.us

Contacts:
Dustin Vande Hoef, Iowa Department of Agriculture and Land Stewardship, 515-281-3375
Kevin Baskins, Iowa Department of Natural Resources, 515-281-8395
Greg Wallace, Iowa State University Extension and Outreach, 515-294-1327



Harvest, Dry and Store Onions, Garlic and Shallots

By Richard Jauron
and Greg Wallace
Department of Horticulture
Iowa State University

Onions, garlic and shallots can add a lot to the home gardening experience. Iowa State University Extension and Outreach horticulturists offer tips for harvesting, drying and storing these popular garden items. To have additional questions answered, contact the ISU Hortline at 515-294-3108 or hortline@iastate.edu.

How do I harvest, dry and store onions?

Onions should be harvested when most of the tops have fallen over and begun to dry. Carefully pull or dig the bulbs with the tops attached.

After harvesting, dry or cure the onions in a warm, dry, well-ventilated location, such as a shed or garage. Spread out the onions in a single layer on a clean, dry surface. Cure the onions for two to three weeks until the onion tops and necks are thoroughly dry and the outer bulb scales begin to rustle. After the onions are properly cured, cut off the tops about 1 inch above the bulbs. As the onions are topped, discard any that show signs of decay. Use the thick-necked bulbs as soon as possible, as they don't store well. An alternate preparation method is to leave the onion tops untrimmed and braid the dry foliage together.

Place the cured onions in a mesh bag, old nylon stocking, wire basket or crate. It's important that the storage container allows air to circulate through the onions. Store the onions in a cool, moderately dry location. Storage temperatures should be 32 to 40 degrees Fahrenheit. The relative humidity should be 65 to 70 percent. Possible storage locations include a basement, cellar or garage. Hang the braided onions from a rafter or ceiling. If storing the onions in an unheated garage, move the onions to an alternate storage site before temperatures drop below 32 F.

The storage life of onions is determined by the cultivar and storage conditions. When properly stored, good keepers, such as 'Copra' and 'Stuttgarter,' can be successfully stored for several months. Poor keepers, such as 'Walla Walla' and 'Sweet Spanish,' can be stored only for a few weeks.

How do I harvest, dry and store garlic?

Harvest garlic when the foliage begins to dry. In Iowa, garlic is usually harvested in August or September. Carefully dig the bulbs with a garden fork or shovel.

Dry garlic in a warm, dry, well-ventilated location. Place the garlic on an elevated wire screen or slotted tray to promote drying.

When the tops have dried, cut off the dry foliage 1 inch above the bulbs. Also, trim off the roots and brush off any loose soil. Place the bulbs in a mesh bag or open crate and store in a cool (32 to 40 F), dry (65 to 70 percent relative humidity) area. Garlic can be stored for three to six months if properly dried and stored. An alternate way to store garlic is to braid the foliage together immediately after harvest, dry and then hang the braided garlic in a cool, dry location.

How do I harvest, dry, and store shallots?

Harvest mature bulbs in late summer when the tops have turned yellow and begun to dry. Cure the shallots in a warm, dry location for one to two weeks. After the shallots have been cured, cut off the dry foliage, place the bulbs in a mesh bag and store the shallots in a cool (32 to 40 F), dry (60 to 70 percent relative humidity) location. When properly cured and stored, shallots can be successfully stored for six months or longer

The Secret to Making the Best Tomato Sandwich in the World

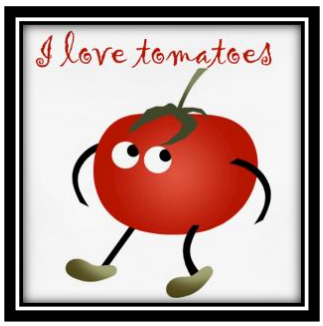
By Julie R. Thomson
The Huffington Post

It's here. Tomato season. The plants have been growing since March, but the fruit just arrived in July. And now that August is finally here, those green globes are turning shades of red, orange and yellow and slowly sweetening. When the fruit turns ripe, the tomato problem quickly shifts from being without to stocking an overwhelming abundance. It's a great problem to have.

With tomato salads, tomato sauces and tomato salsas to be had, there's a good many things to make with the bounty of summer tomatoes. But all those recipes pale in comparison to the tomato sandwich (of which you should be eating at least one a day during the month of August). This is not a sandwich with tomato in it, but a sandwich made of *nothing more* than summer's sweetest fruit. Thick, summer-ripe tomato slices and white sandwich bread (with mayo, of course). That's it.

Blackberry Farm's master gardener John Coykendall, a genius on the topic of heirloom tomatoes, shared the secret to building the best tomato sandwich: "To me there's one requirement. Of course you have to have tons of mayonnaise and salt and pepper, but the true requirement is you have to have that old, cheap, white bread. The kind you wouldn't ordinarily touch in your daily life. It's the one thing that it was created for, tomato sandwiches. You stand over the sink [eating it] and it runs like Niagara falls -- it's wonderful."

We don't know about you, but we are so on board. Pass the Wonder bread, please.



Upcoming Horticulture Events of Interest:

Glenwood Lake Park Farmers Market

Wednesdays, June 4 - Sept. 4, 4:00 – 7:00 PM
Located at Glenwood Lake Park

Mills County Master Gardeners will have a table to help solve your garden problems.

Silver City Farmers Market

Saturdays starting June 7 – Labor Day, 8:00 – 11:00 AM
Located in the Silver City Park

Mills County Master Gardeners on hand to answer all your gardening questions!

Malvern Farmers Market

Fridays starting June 6 – Labor Day, 6:00 – 8:00 PM
Located on Main Street in Heritage Park

New location and live entertainment every week. Check out the Facebook page:
https://www.facebook.com/#!/MalvernMarket

Summer Garden Webinars – "All About Trees"

Date: August 14 and September 4
Time: 6:30 – 8:30 PM
Location: Mills County Extension office, 415 Main Street, Malvern
Cost: Free!

- August 14 – Dr. Donald Lewis and Mark Shour - "Tree Pests" Emerald Ash Borer and the impact on Iowa landscapes.
- September 4 – Jeff Iles – "Ash Alternatives" Ideas for other species for home landscapes.

Vegetable Grilling Demonstration

Date: Monday, September 8, 6:00 – 7:00 PM
Location: Glenwood's Giving Garden,
24955 Ingrum Avenue, Glenwood
Cost: Free!

Hosted by ISU Extension and Outreach. Join us with Chef Corey Hall from HyVee to learn about grilling fresh vegetables in the garden and sample food prepared during the seminar.

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. When harvesting potatoes, avoid bruising, skinning or cutting the tubers. Damaged potatoes should be used as soon as possible.

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.

When and how do I divide bearded irises?

While bearded irises are easy-to-grow perennials, they need to be divided every three to five years. If not divided, plants become overcrowded and flower production decreases. Crowded plants also are more prone to disease problems. In Iowa, July or August is the best time to dig, divide and transplant bearded irises.

Bearded irises grow from thick, underground stems called rhizomes. Carefully dig up the iris clumps with a spade. Cut back the leaves to one-third of their original height. Wash the soil from the rhizomes and roots with a steady stream of water. Then cut the rhizomes apart with a sharp knife. Each division should have a fan of leaves, a healthy rhizome, and several large roots. Discard the old, leafless rhizomes in the center of each clump. Also, discard all diseased or insect damaged rhizomes.

Bearded irises perform best in fertile, well-drained soils and full sun. In clay soils, incorporate compost, peat, or well-rotted manure into the soil prior to planting. When planting bearded irises, dig a hole large enough to accommodate the rhizome and roots. Build a mound in the center of the hole. Place a rhizome on top of the mound and spread the roots in the surrounding trench, then cover with soil. When planted, the rhizome should be just below the soil surface. Finally, water each plant thoroughly.

To obtain a good flower display, plant at least three rhizomes of one cultivar in a group. Space the rhizomes 12 to 24 inches apart. Point each fan of leaves away from the other irises in the group.

When and how do I divide peonies?

September is the best time to divide peonies. By September, peony plants have been able to store adequate food reserves in their roots. Also, the replanted divisions have several weeks to get reestablished at their new sites before the onset of winter.

Begin by cutting off the peony stems near ground level. Carefully dig up the plants and wash or gently shake off the soil. Using a sharp knife, divide the clump into sections. Each section should have three to five buds (eyes) and a good root system. Divisions with fewer than three buds may take two or more years to flower. Plant the divisions in a sunny, well-drained site.

When planting, dig a hole large enough to accommodate the root system of the peony. Position the peony in the hole so the buds are one to two inches below the soil surface. (Plants may not bloom well if the buds are more than two inches deep.) Fill the hole with soil, firming the soil around the plant while backfilling. Then water thoroughly. Space peonies 3 to 4 feet apart.

Mulch newly planted peonies with several inches of straw or pine needles in late fall. Mulching prevents repeated freezing and thawing of the soil that may heave and damage young plants. Remove the mulch as growth resumes in spring.

When and how do I divide daylilies?

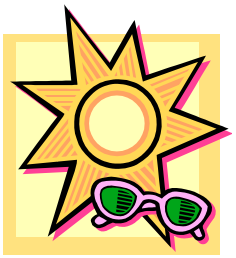
Daylilies can be divided in early spring (as new growth begins to emerge) or in late summer/early fall (September). Dig up the entire clump with a spade. Shake or wash off the soil. Then carefully pull the clump apart. Often, a sharp knife is necessary to divide large, dense clumps. Each division should have two or three fans of leaves and a good root system. When dividing daylilies in September, cut back the foliage to a height of 6 to 8 inches.

Replant the divisions as soon as possible. When planting, the daylily's crown (the area where the shoots and roots meet) should be approximately 1 inch below the soil surface. Water thoroughly. Divided plants usually don't bloom well for one or two years.

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. They can quickly defoliate portions of the plant and heavily damage the fruit. 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.

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.
- Pinch off the growing stem tips from eggplant, pepper, and melon plants to promote ripening of their existing fruits and vegetables.
- 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