

# Plant Wise

IOWA STATE UNIVERSITY  
University Extension

Mills County Extension  
415 Main St., Suite 2, P.O. Box 430  
Malvern, IA 51551  
712-624-8616  
<http://www.extension.iastate.edu/mills>

Prepared by Nancy Crews, Mills County Horticulture Assistant

July 2014

## Prairie Wildflowers for the Home Landscape

By Richard Jauron  
Department of Horticulture  
Iowa State University



Non-native perennials, such as peonies, daylilies, and bearded irises, are indispensable

components of the home landscape. Though suitable for the home landscape, native perennial wildflowers are often unappreciated and not widely planted. Native plants do have distinct advantages. Native wildflowers are adapted to our soil and weather conditions. Many are relatively easy to grow. The following are just a few of the prairie wildflowers that perform well in the home landscape.

The butterfly weed (*Asclepias tuberosa*) is a member of the milkweed family. Plants grow 2 to 3 feet tall and produce flat-topped clusters of bright orange flowers from July through September. Their flowers attract several butterfly species, hence the common name.



Butterfly weed is easy to grow. It performs best in full sun and tolerates drought and infertile soils. Because of its rather long taproot, transplanting the butterfly weed can be difficult. Carefully choose a site and don't disturb it. Also, the butterfly weed emerges slowly in the spring. To prevent possible injury, mark the planting site and don't cultivate in the area

until the plant emerges.

While most butterfly weeds produce bright orange flowers, a few plants in the 'Gay Butterflies' mixture bear yellow or red flowers. The cultivar 'Hello Yellow' has yellow flowers.

Purple coneflowers (*Echinacea purpurea*) grow 2 to 4 feet tall. The plant blooms from June to October. The flower heads are 3 to 4 inches wide. The brown, dome-shaped center of each flower is composed of small disc flowers. The "petals" are actually ray flowers that vary from white to pink to purple in color. The "petals" typically droop. The shape of the flower head is similar to a badminton shuttlecock. The flowers are excellent cut flowers.



Purple coneflowers grow best in well-drained soils in full sun. Plants will tolerate 1/2 day of sun. They are also heat and drought tolerant. Excellent cultivars include 'White Swan' (white flowers), 'Bright Star' (rose-red flowers with maroon centers), and 'Magnus' (rose-pink flowers with broad, horizontal petals). 'Magnus' was selected as the 1998 Perennial Plant of the Year by the Perennial Plant Association.

A tall, spectacular plant of moist prairies is queen-of-the-prairie (*Filipendula rubra*). It produces large, fluffy flower plumes in June through July. The individual flowers are 1/4 to 1/2 inch in diameter and are peach to pink in color. Plants grow 6 to 8 feet tall.



Queen-of-the-prairie performs best in cool locations with moist soils. An eastern exposure is best. Southern and western exposures are often too hot and dry. Because of its large size, queen-of-the-prairie is not suitable for small gardens. 'Venusta' is a cultivar with deep pink flowers.

A common sight in the tallgrass prairie is the long, pink-purple flower spikes of blazingstars (*Liatris* species). A

few plants produce white flowers. Blazingstars bloom from July to September. Flowering begins at the top of the spike and progresses downward. Plants grow 2 to 3 feet tall.

Several species of *Liatris* are native to Iowa. *Liatris spicata* and its cultivars are most commonly planted in home gardens because they are shorter than other species. Excellent cultivars include 'Floristan White' (white flowers) and 'Kobold' (pinkish-purple flowers). Blazingstars grow best in well-drained soils in full sun. Avoid wet, poorly drained sites. The attractive flower spikes make excellent cut or dry flowers.



The flowers of the yellow coneflower (*Ratibida pinnata*) somewhat resemble black-eyed Susans. The flower head is composed of a center cone and yellow, drooping petals (ray flowers). The 3/4 inch long cone is initially ash gray but eventually turns to brown. The 3 to 5 tall plants bloom in June to September. The flowers attract several different butterfly species.



The yellow coneflower performs best in well-drained soils in full sun. It is drought and heat tolerant.

**Stiff Goldenrod** Several species of goldenrod (*Solidago* species) are native to Iowa. They produce bright yellow flower heads in August to September. Regrettably, many individuals mistakenly believe that goldenrods are responsible for hay fever. Actually, the inconspicuous flowers of ragweeds are responsible for the allergic reactions.



There are several excellent goldenrod cultivars. These cultivars are shorter than the native species and are better choices for the home landscape. Suggested cultivars include 'Golden Fleece' (15 to 18 inches tall), 'Crown of Rays' (columnar habit, 24 inches tall), and 'Golden Baby' (24 inches tall).

Other prairie wildflowers suitable for the home landscape include the New England aster (*Aster novae-angliae*), Joe-pye weed (*Eupatorium purpureum*), ox-eye

(*Heliopsis helianthoides*), prairie phlox (*Phlox pilosa*), and ironweed (*Vernonia fasciculata*).

## Squash Bug: Management in Home Gardens

By: W. Cranshaw  
Horticulture Expert  
Colorado State University



Squash bug (*Anasa tristis*) can be the most destructive insect pest of winter squash and pumpkins. Feeding damage results in wilting of vines, often with plants being prematurely killed. Problems are most common in the warmer areas of the state and tend to be worse following mild winters.

### Quick Facts...

- Squash bug eggs are shiny, slightly oval, and copper colored.
- Squash bugs can be the most destructive insect pest of winter squash and pumpkins.
- Both nymphs and adults primarily feed by sucking sap from plants causing great damage.
- Mulches often provide protective cover for squash bugs and damage can be worse on plants that are mulched compared to those grown over bare soil.

### Life History and Habits

Winter is spent in the adult stage under sheltering debris in the vicinity of previously infested plantings. Squash bugs become active in warm days during late spring and move to germinating squash. Mating and some feeding occur during this time followed by egg laying, which often begins around mid-June.

Squash bug eggs are very distinctive. They are shiny, slightly oval, and copper colored. Eggs are laid in small masses, most often on the underside of leaves. The first stage nymphs hatch in about a week and are pale green. Nymphs grow in stages, punctuated by molting, and then gradually increase in size. Late stage nymphs are grayish and possess dark wing pads. A final molt allows the adult stage to emerge. Mixtures of nymphs and adults may occur together in large masses. During periods of extreme warmth or cold they often hide around the base of the plant and move onto the plant when conditions are more favorable.

A second generation is then produced, with adults of this generation present in late summer and early fall. These adults then move to winter shelter and go dormant until

the following spring. Nymphs that fail to develop to the adult stage do not survive following hard frosts.

Both nymphs and adults feed by sucking sap from plants. However, their manner of feeding, sometimes described as 'lacerate and flush' is quite destructive. Cells around the feeding site are destroyed and with multiple feeding punctures areas of the leaf or stems may collapse and no longer move water. This produces wilting, which may rapidly and frequently result in the death of the whole plant.



Early Stage Squash Bug Nymphs

Squash bugs will also move to feed on fruit.

Feeding injuries may result in sunken, dead areas that allow entry of rotting organisms that eventually destroy the fruit. Alternately they may cause corky spots to form on the fruit surface, detracting from appearance.

Hard, winter squashes including pumpkin are the most commonly damaged plants. Less commonly summer squashes are damaged. Related cucurbits, such as cucumber and melons, are rarely damaged by squash bug. Squash Bug Control

Weather conditions appear to be very important in the severity of squash bug problems. Warm temperatures during the growing season allow most of the second generation nymphs to successfully reach the adult stage. Mild winter temperatures allow the overwintering adult bugs to survive from season to season.

In small plantings, hand-picking can be very effective. Attention should be given to the eggs which are easily detected in garden surveys and can be crushed when detected. Egg surveys should be done at least once a week during June when egg laying is likely to begin.



Since squash bugs often seek shelter around the base of plants, this area should be cleared of debris. Mulches often provide protective cover for squash bugs and damage can be worse on plants that are mulched compared to those grown over bare soil.

The area around the base of the plant is also a site where insecticide applications should be concentrated. Diatomaceous earth/pyrethrins applications around the base of the plant can be an effective method to control squash bug and is a treatment allowed in Certified Organic vegetable production.

A few other insecticides, including those with esfenvalerate, permethrin, or carbaryl as the active ingredient, can also control squash bug. It is recommended that these treatments be applied early in the season. A first application should be made when eggs are first detected (i.e., June) followed by a second application a week or two later to provide excellent early season control on young plants. This early season management approach has several further advantages. For one, applications are made well before harvest, allowing insecticide residues to greatly degrade and diminish. Also, it reduces early population growth numbers that are available to lay eggs during the second generation later in the season.

## Harvesting Grapes

By Richard Jauron  
Department of Horticulture  
Iowa State University



Grapes must be harvested at the right stage of maturity to insure high quality. There are several indicators of grape maturity. The color, size, sweetness, and flavor of the berry are the most useful indicators.

Depending on the variety, the berry color changes from green to blue, red or white as the grapes approach maturity. Color alone, however, should not be the sole basis for harvesting grapes. The berries of many varieties change color long before the grapes are fully ripe. At maturity, individual berries are full size and slightly less firm to the touch. As a final test, taste a few grapes for sweetness when berry size and color indicate they are approaching maturity. Harvest the grape clusters when the berries are sweet.

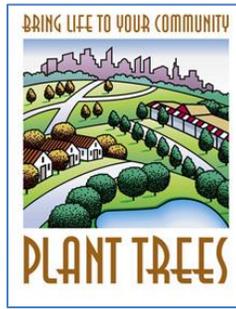
When harvesting grapes, remove clusters with a knife or hand shears. Sound grapes can be stored in perforated plastic bags in the refrigerator for up to two months. Optimum storage conditions are a temperature of 31 to 32°F and a relative humidity of 85 percent.

Uneven ripening of the berries within a cluster is sometimes a problem. Possible causes are over-cropping (too many grape clusters on the vine), a potassium deficiency, moisture stress, or 2,4-D damage. Overcropping is the most common cause for home gardeners.

## How to Plant Trees to Conserve Energy

By The Arbor Day Foundation

Planting the right trees in the right places conserves energy and reduces your energy bills, while helping to fight climate change. Properly placed trees save energy by providing summer shade, winter warmth, and winter windbreaks.



In the summer, properly placed trees conserve energy in the following ways:

- Trees shade patios, sidewalks, and driveways, cool the concrete, the entire yard, and even the neighborhood.
- Use less energy for yourself and your utility company.
- Less fossil fuel is consumed by the utility to create the energy, which means less carbon dioxide emissions.



Large deciduous trees planted on the east, west, and northwest sides of your home create soothing shade from the hot summer sun and reduce summer air conditioning costs by up to 35%.

Plant trees to shade your air conditioner to help keep it cooler and running more efficiently.

### **Winter Warmth and Windbreaks**

After the leaves fall, the sun pours through tree branches to warm your home in winter. The sun travels lower on the southern horizon in winter, so you'll want to avoid planting evergreen trees on the south side of your home where they'll block winter sunshine. Instead, plant an evergreen conifer windbreak on the north and northwest of your home to block cold winter winds.

Planting a row of conifer trees on the north and northwest sides of your property creates a wall against cold winter winds - saving your heating costs by up to 30%. The best protection from wind occurs when the windbreak is no more than the distance of one or two tree heights from the house.

The down-wind side of the trees is where the most snow accumulates, so plant your windbreak a one or two tree-height distance from your rooftop and driveway if you can.

## Emerald Ash Borer or Native Borer? New Publication Shows the Difference

By Alma Gaul  
Quad City Times

The emerald ash borer is an insect that, in a matter of time, will destroy any ash tree.



Because the bug has begun making its way across Iowa and Illinois, an Iowa State University Extension and Outreach entomologist, in collaboration with an Iowa Department of Agriculture and Land Stewardship entomologist, has written a new publication to help people identify signs of the pest under the bark.

### **Emerald Ash Borer Tunnels – D shaped exit holes**

“EAB or Native Borer?” by Mark Shour and Todd Voss offers a side-by-side comparison of the emerald ash borer and several native borers, which only attack declining or dying ash trees.

The exotic emerald ash borer kills both healthy and declining ash trees. The publication (PM3065) is available for free download from the ISU Extension and Outreach Online Store, [store.extension.iastate.edu](http://store.extension.iastate.edu).

To learn more about EAB and other pests that are threatening Iowa's tree population, please visit:

- [IowaTreePests.com](http://IowaTreePests.com)
- [extension.iastate.edu/pme/EmeraldAshBorer.html](http://extension.iastate.edu/pme/EmeraldAshBorer.html)

Or contact Mark Shour, ISU Entomology, at 515-294-5936 or [mshour@iastate.edu](mailto:mshour@iastate.edu).



## 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>

### **Salsa Workshop and Demonstration**

Date: Monday, August 4, 7:00 – 8:00 PM  
Location: Glenwood's Giving Garden,  
24955 Ingrum Avenue, Glenwood  
Cost: Free!

Learn how to make different kinds of salsa using fresh garden ingredients in a hands-on workshop. Participants will observe and help prepare different salsa recipes, sample different salsas and take home recipes.

### **Mills County Fair**

Date: Saturday, July 19  
Open Class Floriculture & Agriculture  
Entries received at the Mills County Fairgrounds  
8:00 AM – 12:00 Noon

### **Enter your Flowers and Vegetables!**

Open Class fair books are available at area banks, libraries, the Extension Office in Malvern and online at:  
<http://www.extension.iastate.edu/mills/sites/www.extension.iastate.edu/files/mills/fair/2014%20Open%20Class%20Fairbook.pdf>

### **Armstrong Research Farm - Demonstration Garden Field Day**

Date: July 21  
Time: 6:30 – 8:30PM  
Location: ISU Armstrong Research Farm, 53020  
Hitchcock Avenue, Lewis, IA 51544  
Cost: Free!

ISU along with Wallace Foundation for Rural Research and Development will host the field day. Featured will be vegetables that are purple, different varieties of colored peppers, green beans and squash. For more information contact Leann Tibken, 712-769-2650, [leann@iastate.edu](mailto:leann@iastate.edu)

### **Summer Garden Webinars – “All About Trees”**

Date: July 15, August 14 and September 4  
Time: 6:30 – 8:30 PM  
Location: Mills County Extension office, 415 Main Street, Malvern  
Cost: Free!

- July 15 – Mark Vitosh, Iowa DNR Forester - "Iowa's Unknown Treasure" Trees in urban and rural landscapes.
- 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

### **My vegetable garden was flooded and destroyed. It is too late to replant?**

Fortunately, there is still time to plant several vegetable crops. In central Iowa, the last practical date to plant early maturing sweet corn varieties is July 1. Cucumbers and summer squash can be planted until July 20. August 1 is the last practical date to plant snap beans, carrots and beets. (The last practical planting dates would be

approximately 1 week earlier in northern Iowa and 1 week later in southern portions of the state.)

### **My June-bearing strawberry patch was flooded in June. Can I harvest the berries?**

Berry fruits, such as strawberries, are highly susceptible to bacterial contamination. Silt and other contaminants may become imbedded in the fleshy fruit and are difficult to remove. Since the berries were present when the garden was flooded, do not harvest and eat any of the fruit. Renovate the strawberry patch in early July. Next year's crop should be safe to eat.

### **How long do Japanese beetles feed on plants in the yard and garden?**

Japanese beetles are present for about six to eight weeks every summer. Adult beetles usually begin to emerge from the ground in mid-June and new adults continue to appear through July. Each beetle lives from 30 to 45 days.

### **How do I control Japanese Beetles in my Grape Vines?**

In home gardens, small numbers of Japanese beetles can be controlled by handpicking. The best time to physically remove Japanese beetles is early morning when the beetles are sluggish. Collect or shake beetles into a bucket of soapy water and discard.

If handpicking is not feasible, applications of an insecticide, such as carbaryl (Sevin), malathion, or permethrin, can reduce Japanese beetle damage. Repeated applications will likely be necessary because of the short residual effect of the insecticides.

## **JULY GARDENING TO DO LIST**



- Remove suckers at the base of crabapple trees.
- 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.
- Moistened and turn your compost pile on a regular basis.

- 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.
- Divide and replant bearded irises every 3 to 5 years. Dig the clumps carefully. Discard any diseased or damaged rhizomes and the old center portion. Cut back the leaves to 6 inches. Then replant.
- Remove canes of summer-bearing red raspberries after last harvest.
- Remove cool-season vegetables, before they start to bolt, or form seed stalks, during hot, dry weather.
- Continue to harvest beans and squash to keep plants productive.
- Mulch peppers, tomatoes, cucumbers and squash to conserve moisture and keep weeds down.
- Prune tomatoes by pinching out axial suckers.

### **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](http://www.extension.iastate.edu/mills/yardgarden.htm)

### **Iowa State University Publications**

- NCR 0025 Lawn Weeds and Their Control (\$7.25)
- PM 773 Weed Control – Poison Ivy
- RG 209 Organic Mulches
- RG 601 Gardening for Butterflies
- PM 0819 Planting a Home Vegetable Garden
- PM 534 Planting & Harvesting Times for Garden Vegetables (Free)
- PM 3065 EAB or Native Borer?

### **Horticulture Publications on-line**

<https://www.extension.iastate.edu/store/ListCategories>

*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.*