

Plant Wise

IOWA STATE UNIVERSITY
Extension and Outreach

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July 2023

Echinacea, Coneflower Flower

Echinacea purpurea, the eastern purple coneflower, purple coneflower, hedgehog coneflower, or echinacea, is a North American species of flowering plant in the family Asteraceae.



Echinacea (coneflower) is a genus of 11 species of herbaceous perennials native to North America. The botanical name comes from the Greek word echinos, which means “spiny” like a hedgehog. That, and the plant’s common name, refer to the spiky cone of seeds that form the center of the flowerheads. Echinacea purpurea, the purple coneflower (even though it has pinkish petals) is one of the most commonly-grown species.



There are now dozens of hybrids available in a huge variety of heights with a wide range of flower colors, from bright pink to white to two-toned yellow, orange, and more. Some have flowers that

maintain the traditionally recognizable daisy shape and a large center cone, while others look like pom-poms. Some have flat-topped flowers. Whatever your garden’s color scheme, there is likely an Echinacea that will fit. Echinacea plants are native to the eastern half of the United States, and they grow natively from Texas up to North Dakota and eastward to the Atlantic Ocean. However, they’ll flourish in just about any garden, continent-wide, given the right conditions.

Natural Medical qualities

The reason the botanical name, Echinacea, is so familiar to most people is, yes, the cold & flu aisle at the drug store. Roots of Echinacea purpurea and Echinacea angustifolia were traditionally used by Native Americans to heal a wide range of ailments. Today, you find extracts in cough drops, and capsules of ground up plant parts touting immune boosting benefits. Whether it works for you is up to you. Be careful if you partake, as some people are allergic to Echinacea.



Natural Relationship

If you wanted to invite birds, butterflies, dragonflies, bees, and other pollinators to your garden, plant Coneflowers! In the 1990s everyone became really excited about butterflies. Coneflowers and butterflies over thousands of years developed a natural relationship. As a whole, gardeners have clued into the fact that in addition to supporting butterflies, we can do a lot of good for our environment and our food supply by supporting all pollinators. At the same time, adding beauty to our gardens. The plants develop long deep root

systems, and are regularly used in rain gardens, directing water deep into our soil. The roots also provided structure to the soil and helping to build the soil and was essential in helping prevent erosion.



Pollinator Garden

To feature coneflowers in your pollinator garden, choose a site in full sun with well-drained, easy to work soil. (Echinacea can handle partial sun, but many other pollinator favorites will not.) The National Pollinator Garden Network suggests planting “targets” of pollinator plants, which means large groups. Pick out a few plants that play well with coneflowers (Russian Sage, Yarrow, Phlox, Rudbeckia, Goldenrod, Sedum, and Bee Balm) and plant blocks of them together in the landscape or flower bed. This will create a dramatic effect, and you’ll have something blooming almost all summer long, with is another key recommendation for pollinator gardens.

Add a water source, such as a bird bath. Another plus is the fact that these plants have very few pest problems, so there is no need for pesticides!



Plants or seeds

You can buy coneflower plants at any greenhouse or nursery. As mentioned earlier, there is a wide variety of colors and variations of the original Echinacea plant. You will find that Purple Coneflower is easy to grow. It also reseeds very easily. If you want the newer white, orange and red

Echinacea, it is recommended to do plants instead of seeds. Be aware that many wildflower seeds, particularly those of perennial flowers, require a cold, damp treatment of their seeds in order for the seeds to germinate. This is an evolutionary trait that keeps the seeds from sprouting as soon as they drop from the plant and allows for better dispersal and survival. (If a seed sprouts during a warm week in October the plant might not survive the winter.) Sow Echinacea seeds outdoors in the fall so they can undergo a natural scarification process (freezing, thawing and cracking of the hard outer case) during the winter. Lightly cover. Always sow thickly to leave a little for the birds; they will inevitably find the seeds and eat some.



Rudbeckia

Rudbeckia is a plant genus in the Asteraceae or composite family. Rudbeckia flowers feature a prominent, raised central disc in black, brown shades of green, and in-between tones, giving rise to their familiar common names of coneflowers and black-eyed-susans.



Dependable and easy to care for, black-eyed Susans (*Rudbeckia hirta*) has become a garden staple. Daisy-like rays of bright yellow petals and dark center disks rise over broad ovate green leaves with a rough texture. This wildflower is native to the central United States and can be seen growing in natural areas and along roadsides in the Midwest. Its ability to self-seed makes it a great choice for abundant wildflower gardens. You can plant it after the last frost in spring. It will flower in its first summer although it can take two to three years to reach full height.

There is a great deal of variety within the Rudbeckia genus, 25 species, with very few problems. Fast-growing black-eyed Susan is easily the most commonly known Rudbeckia, with its daisy-like flowers with large seed heads. It also has the scratchy, hairy leaves that are characteristic of its genus.

Care / Light / Soil / Water

Black-eyed Susans are easy to establish, they naturalize well, and require little maintenance other than deadheading. As in nearly all blooming plants, regular deadheading of the faded flowers keeps the plants in bloom longer. You can let the last flowers of the season remain on the plants to form seed heads that will feed the birds through the winter. You will also get a good deal of self-seeding, which might not be a bad thing.

Black-eyed Susans do best in full sun, but they can handle partial shade.

Being native plants, Black-eyed Susans do best in soil that is not too rich and is well-drained, with a pH around 6.8.

Keep the plants well-watered their first season to get them established—an inch per week through rainfall or irrigation is sufficient. Once established, they will be drought-resistant. Just like Echinacea, they have evolved with a deep root system that makes them tolerable to hot dry mid-west weather



Temperature and Humidity / Fertilizer

As a tough summer performer, this plant likes warmer temperatures of 60 degrees Fahrenheit and more. It handles both drought and humidity well, but it does need good air circulation to avoid powdery mildew.

Go easy on the fertilizer. Black-eyed Susan, as well as most natives, has evolved to grow even in poor, infertile soil. A side dressing of compost should be all they will need.

Problems / Deer-resistant

Black-eyed Susan is rarely bothered by serious pests and diseases. Septoria or angular leaf spots are two fungal diseases that form black spots on the leaves and stems. Provide good air circulation by leaving ample space between plants, and avoid getting the leaves wet when watering as that can spread the fungi. Removing and throwing infected leaves in the trash instead of composting helps to contain the spread. Tender young growth may get nibbled. Once they mature and their leaves become coarse and hairy, they are deer-resistant.

Black-eyed Susans make great cut flowers. The seed heads hold up well, too, and look attractive in arrangements. They are a wonderful addition to any garden. Very versatile and bloom in vibrant color all summer long. A great pollinator plant.



Liatris

Liatris, commonly known as gayfeather and blazing star is a genus of flowering plants in the tribe Eupatorieae within the family Asteraceae native to North America. Some species are used as ornamental plants, sometimes in flower bouquets. They are perennials and re-sprouting underground from corms and reseeds it's self very well.



Liatris grow wild in meadows and prairies throughout many parts of the U.S. Though the plants prefer well-drained soil, they will tolerate more moisture than many other garden perennials, so are often included in rain gardens. In fact, they are versatile and easy to grow in the garden. Liatris can be an eye-catching addition to flower gardens. Their stately, wand-like flowers bloom in mid to late summer and can be anywhere from 1 to 5 foot tall. Flower color is typically amethyst-purple, though there are also cultivars with pink or white flowers. Liatris are good cut flowers, and look wonderful in a vase with dahlias, zinnias and other summer blooms.

Because they are native plants, liatris are vigorous enough to hold their own when planted in a meadow or other natural area. You'll find it's a good companion for ornamental grasses, and looks especially attractive planted in large sweeps or drifts.

Pollinator Plant

Liatris species are butterfly magnets. The flowers attract a wide range of butterfly species, and this makes liatris a must for butterfly gardens. When in bloom it's not unusual to see clusters of monarchs jockeying for position on the purple flower spikes – which is why regionally native blazing star species

have been included on nearly all of our Monarch Nectar Guides. The flowers and foliage will vary from species to species, but blazing star is generally known for its characteristic fluffy purple flower clusters that are borne on tall spikes atop grass-like foliage. In the landscape these plants mix well with native grasses to interesting effect. Blazing star is also well-known amongst florists, but we suggest you leave the blooms in place or plant extra for monarchs!



Planting

The corms may be planted individually or you can dig a larger hole and plant several bulbs at the same time. Loosen the soil to a depth of 6-8" and dig a 3"-deep hole. Position the corms in the hole, about 5" apart on center, with the smooth side down and the sprouts facing up. Cover with soil and water them in if the soil is dry. You can also plant young liatris that comes up from seed. It looks like two blades of grass, or wait and let it grow for a year, as it will not be as tender and have a better chance of survival when you transplant it.

Liatris Care

You should provide water to newly planted corms as needed for the first few weeks. Once established they require little water, so allow the soil to dry between watering.

Liatris plants don't really need fertilizing, especially if grown in healthy soil, though you can add fertilizer prior to new growth in spring, if desired, or add some slow-release fertilizer or compost to the bottom of the hole at planting time to give corms a good start.

Division may be needed every few years and is usually done in the fall after they die back, but spring division can be done as well if necessary.



BLT Potato Salad

YIELD: Serves 10 PREP TIME: 25 mins
 Stove top: 8 mins TOTAL TIME: 25 mins

INGREDIENTS:

- 2 lb. red new baby potatoes, halved or quartered
- 1/2 cup water
- 3/4 cup Real Mayonnaise
- 1/4 cup chopped fresh chives
- 1 Tbsp. Distilled White Vinegar
- 8 slices Bacon, cooked, crumbled
- 4 cups loosely packed coarsely chopped romaine lettuce or a lettuce of your choice
- 2 cups cherry tomatoes, halved

DIRECTIONS:

1. Place potatoes in 2-qt. microwaveable casserole. Add water; cover with lid. Microwave on HIGH 6 to 8 min. or just until potatoes are tender; stir. Let stand, covered, 5 min. Drain potatoes; rinse with cold water. Drain again.
2. Mix mayo, chives and vinegar in large bowl until blended.
3. Add potatoes and remaining ingredients; toss to coat.

Tips: Make Ahead

Prepare salad as directed, except omit the lettuce. Refrigerate up to 24 hours. Toss with lettuce just before serving.

Comments: This is an awesome potato salad which features an unbeatable combo of tender potatoes, crispy bacon and juicy cherry tomatoes.



Do You Remember When?

The days were sunny, hot but breezy. You slept with the windows open, usually with a large box fan blowing the night air through the bedroom. Summer was hot, yet bearable. We didn't know anything about air-conditioning. After all, we were always outside anyway. We were acclimated to the hot days of summer.

Summer was the time for making hay. Dad, Grandpa, my brothers and some boys from town all worked together. Each bale was handled several times. We hooked a hayrack behind the hay baler. Two people would ride the rack, stacking the hay as it came out of the baler. When the rack was full, we would switch it out for an empty one. That was my job. We had 4 racks all together. When all were full, we pulled them to the barn to unload them. We put hay in the barn the old way, My Dad would be at the front of the barn where the large haymow door was open. He put grapple forks in the corners of 8 bales, which were then slowly elevated via a pulley system, up the side of the barn and onto the steel track on the ceiling, and with a trip rope, the hay could be dropped anywhere along that track. The boys in the mow then neatly stacked the hay while Dad was reloading the grapple forks. This was all pulled by a tractor on the opposite side of the barn. Again, my job. Our farm was among the last to use this "Hay Horse grapple fork trolley" system, named so because horses had been used to pull the hay rope long before there were tractors. Anyone one who knows what a curved whiffletree is, will know what I am talking about.

Before we headed back to the field to bale more hay, we stopped at the house to refill water jugs and have fresh out of the oven pie, cake or cookies! Mom's job. The pies were made from which ever fruit was ripening at that point of summer. Every member of the family was involved. Family meant everything, we all worked together, it was what we did. Life on the self sufficient Iowa farm.

Enjoy your summer! ☺



Mills County to hold Master Gardener Classes this Fall, 2023

If you are a person who loves to garden, loves to learn and loves to contribute back to your community, then being a Master Gardener is for you! Taking the classes deepens your horticultural knowledge and opens new friendships with fellow gardeners!

To get started, here is what you need to do. Check with your local county ISU Extension office to see if they are doing Fall Master Gardener classes. (Here in Mills County we are!) On-line registration for the fall session is **July 17 - August 18, 2023**.

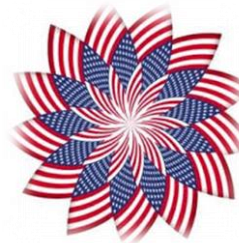
After your application is accepted, you will be asked pay the fee of \$150 for the Master Gardener Volunteer, trainee on-line and in-person sessions, and background check.

The Master Gardener Prohort trainee fee is \$550. This session is for professional services and requires no volunteer county service.

If you are interested, call or email your local ISU Extension and Outreach County office and get your name on the list. You will then be contacted when the registration period opens. Here is the Mills County Extension and Outreach contact information: xmills@iastate.edu or (712)624-8616



July UP COMMING EVENTS



- **July 4, 2023 – Independence Day**
- **July 6 – 11, 2023 – Adams County Fair**
- **July 7 – 11, 2023 – Mills County Fair**
- **July 12 – 17, 2023 – Fremont County Fair**
- **July 16 – 23, 2023 – Montgomery County Fair**
- **July 17 – August 18, 2023 – On-line Registration for Mills County Master Gardener Fall Classes**
- **July 19 – 24, East Pottawattamie Fair**
- **July 25 – 30, 2023 – Page County Fair**
- **July 26 – August 1, 2023 – Cass County Fair**
- **July 27 – August 1, 2023 – West Pottawattamie Fair**
- **August, 10 – 20, 2023 – Iowa State Fair**
- **September 5, 2023 – Master Gardener Classes begin**
- **Iowa Master Gardener You Tube –** Follow the link below. You will find many ISU educational gardening webinars and videos here for educational hours.
<https://www.youtube.com/channel/UCoyB28Aj3qOovjpwnkSiLBg>



- **Mills County Master Gardener Facebook Page**
<https://www.facebook.com/MillsCountyMasterGardeners>
- **Iowa Master Gardeners Facebook Page**
<https://www.facebook.com/iamastrongardeners/>



July **GARDENING TO DO LIST**

- **Routinely check flowerbeds**, watering and pull any weeds as you go.
- **Mulching straw** tomato and other plants will help with weed control and help the soil retain moisture.
- **Water tomato plants** evenly when they begin to form tomatoes to help prevent skin splitting.
- **Continue to water perennials** you split this spring until they are established
- **Mow lawns** regularly to keep grass at 2 1/2" height
- **Look for pests** and other problems; spotting early can mean less chemical controls. Note: slugs and caterpillars can be removed manually.
- **Be ready for Japanese Beetles.** Purchase light weight see through mesh to cover rose bushes. There are nettings that will go over small fruit trees. Netting tunnels for garden vegetables.
- **Clip Suckers off** of your indeterminate tomatoes.
- **Harvest Broccoli and** cauliflower as they are ready. In hot weather broccoli can bolt. Gently steam broccoli to retain maximum nutrients.
- **Cut perennials herbs**, and hang them to dry in a warm, bright spot (no sun!) with good ventilation.
- **Control slugs** near your hostas by putting out slug bait. Sprinkle the bait around the hostas. Put out small amounts, replenish as needed.
- **Garlic** – harvest and use the garlic as the leaves begin to dye back. Let it dry and cure in a cool place before cutting the tops off.
- **Fertilize Established Roses.** Use an organic 5-10-5 fertilizer.
- **Water newly planted** deciduous trees and shrubs, to help them establish their root system.
- **Weed and Water** your garden. Keeping it weeded helps your plants with no competition for nutrients and water. Mulch will also help.
- **Spray fruit trees** following guidelines for each type of trees



Resources for Horticulture information **Iowa State University Publication**

- RG 310 Caring for Roses in Iowa
- SUL 5 Pruning Trees: Shade, Flowering, and Conifer
- PM 780 Pruning and Training Fruit Trees

- RG 501 Pruning Raspberries
- PM 873 How to Construct a Cold Frame Or Hotbed
- ENT 61 Gardening for Butterflies and Pollinators
- PM 820 Garden Soil Management
- RG 209 Organic Mulches
- PM 2086 Growing Organic Vegetables in Iowa
- RG 201 Integrated Pest Management
- PM 874 Starting Garden Transplants at Home
- PD 607 Suggested Vegetables Varieties for the home Garden
- PM 819 Planting a Home Vegetable Garden
- PM 534 Planting and Harvesting Times of Garden Vegetables
- PM 870A Small Plot Vegetable Gardening
- PM 666 Weed Management in the Home Garden
- PM 814 Where to put your Vegetable Garden
- PM 870B Container Vegetable Gardening
- PM 994 Asparagus in the Home Garden
- PM 1893 Cilantro
- PM 1894 Garlic
- HORT 3082 Growing and using Basil
- HORT 3085 Onions
- HORT 3084 Peppers
- HORT 3086 Potatoes
- PM 719 Rhubarb in the Home Garden
- HORT 3089 Sweet Corn
- PM 1895 Tomatillos
- HORT 3091 Tomatoes
- PD 54 Tomatoes Diseases and Disorders
- HS 96 Growing Tomatoes in a Container
- HORT 3068 Top 13 Vegetables to Donate to Food Pantries
- PM 823 Watering the Home Garden – Trickle Irrigation

Horticulture Publications on-line

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

ISU Hotline Links and Numbers

Hotlines available for all

Iowa Concern 800-447-1985 Financial questions, legal education, stress counseling, crisis/disaster resources and referral (24 hrs - all days)

Beginning Farmer Center 877-BFC-1999 Program to match beginning and retiring farmers (8 a.m. to 5 p.m.)

Teen Line 800-443-8336 Personal and health-related information and referral (24 hrs - all days)

Iowa 2-1-1 211 Resource referral for housing, health, food, family, transportation, employment, education, and legal assistance (24 hrs - all days)

Hot lines available for Iowa Residents Only

AnswerLine Toll-free: 800-262-3804 Local: 515-296-5883

Questions relating to home and family (9 am-noon & 1-4 pm)
Iowa Healthy Families 800-369-2229 Health information and referral (24 hrs - all days)

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