

Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Spring Care of Strawberry Plants

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Strawberries are hardy, easy to grow and produce a good crop with moderate effort, making them well suited to home gardens. Early spring is the best time to plant strawberries in Iowa, but don't rush to remove mulch. Gardeners with additional questions can contact the horticulturists with Iowa State University Extension and Outreach at hortline@iastate.edu or 515-294-3108.

When should I remove the mulch on my strawberry bed?

To reduce the chances of crop damage from a late frost or freeze, leave the mulch on as long as possible. Removing the mulch in late March may encourage the plants to bloom before the danger of frost is past. Temperatures of 32 degrees Fahrenheit or lower may severely damage or destroy open flowers. Since the first flowers produce the largest berries, a late spring frost or freeze can drastically reduce yields.

To determine when to remove the mulch, periodically examine the strawberry plants in spring. Remove the mulch from the strawberry planting when approximately 25 percent of the plants are producing new growth. New growth will be white or yellow in color. (If possible, the winter mulch on strawberries should remain until mid-April in central Iowa.) When removing the mulch, rake the material to the aisles between rows. If there is a threat of a frost or freeze later in spring during bloom, lightly rake the mulch over the strawberry plants.

Should I fertilize my strawberries in spring?

Established plantings of June-bearing strawberries should not be fertilized in spring. Spring fertilization stimulates foliar growth, produces softer berries and increases disease problems. Lush, vegetative growth may make picking difficult. Also, soft berries are more likely to be attacked by fruit rots. As a result, a spring fertilizer application may reduce fruit yield.

Fertilizer should be applied to June-bearing strawberries during the renovation process immediately after the last harvest of the season. Apply approximately 5 pounds of 10-10-10 or a similar analysis fertilizer per 100 feet of row.

Everbearing and day-neutral strawberries can be fertilized in early spring and again in early August. Apply 5 pounds of 10-10-10 or a similar analysis fertilizer per 100 feet of row.

When is the best time to plant strawberries?

Early spring (April) is the best time to plant strawberries in Iowa. Apply and incorporate the recommended type and amount of fertilizer (based on soil test results) into the top 6 to 8 inches of soil prior to planting. If the fertility level of the soil is unknown, apply and incorporate 1 pound of 10-10-10 or a similar analysis fertilizer per 100 square feet.

Remove the strawberry plants from storage when ready to plant. Trim off the older leaves, place the roots in water for an hour, then plant immediately. Set each plant in the ground so the crown of the plant is even with the soil surface.

Immediately after planting, water the strawberry plants and apply a starter fertilizer solution to aid establishment. Use a water soluble fertilizer following label directions or dissolve 2 or 3 tablespoons of a complete garden fertilizer, such as 5-10-5 or 10-10-10, in one gallon of water.

Encourage Beneficial Insects in the Garden

Naturally occurring predators and parasites are found in gardens, orchards, and fields. Learn to properly identify these species as benefits of your environment. Avoid using pesticides around them. They are as susceptible to insecticides as the pests.

List of Beneficial Insects and Mites



Assassin bug - Reduviidae - The assassin bug feeds mainly on aphids, caterpillars, Colorado potato beetles, Japanese beetles, leafhoppers, and Mexican bean

beetles.

Damsel bug - Nabidae - The damsel bug feeds on aphids, leafhoppers, mites, and caterpillars.



Big-eyed bug - Lygaeidae - Big-eyed bugs feed on aphids, caterpillar eggs and larvae, immature bugs, leafhoppers, and spider mites.

Predacious stink bug - Pentatomidae - Predacious stink bugs feed on Colorado potato beetles and various caterpillar larvae.



Syrphid fly larvae - Syrphidae - Fly larvae of this species feed on aphids and mealy bugs.

Lady beetle - Hippodamia convergens - The lady beetle feeds mainly on aphids and other soft-bodied insects, such as mealybugs and spider mites.



Green lacewing larvae - Chrysopa carnea - Lacewing larvae, known as aphid lions, feed on insect eggs, aphids, spider mites, thrips, leafhopper nymphs, and small caterpillar larvae. Adult lacewings are not predacious.

Predatory mites - Phytoseiulus persimilis and several other species feed on many mite pests, including the two-spotted spider mite.



Trichogramma wasp - Trichogrammatidae - This tiny wasp attacks eggs of more than 200 pest species, including cutworms, corn borers, corn earworms, army worms,

codling moths, and cabbage moths. Release time is critical for their effectiveness since they only attack pest eggs.

Encarsia formosa - Encyrtidae - The greenhouse whitefly is parasitized by this wasp in third and fourth larval instars when Encarsia lay their eggs inside the whitefly scale.



Chemical Controls

If a pest problem requires chemical control, use the least toxic, yet effective, materials and follow label directions. A certified nursery and landscape professional or Extension professional can help you identify the proper pesticide and the method to use it.

Reiman Gardens
Iowa State University

Spring Clean-up for Disease Management

By Mark Gleason
Department of Plant Pathology
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One benefit of spring's slow start this year is that there's still time to clean up home gardens. Getting rid of last year's dried-up plant refuse now can help you have fewer, less severe disease problems as the season progresses. A checklist of April sanitation chores for some yard and garden favorites:

Annuals. Remove all annual vegetables and ornamentals if you didn't do it last fall. Pull up the roots if possible. Plow the vegetable garden after removing as much plant debris as possible; the plowing helps to speed up decay of any remaining plant fragments.

Peonies. Rake out all the collapsed stems and leaves before the new shoots come up. Being as thorough as possible about this will help to delay problems with peony leaf blotch this year.

Apples and crabapples. Rake up fallen leaves and fruit to reduce the incidence of apple scab this season. Prune out any dead branches, especially any fire blight strikes. Also prune out water sprouts and thin out the crown to encourage good air circulation.

Raspberries. Prune out dead or diseased (cankered) canes to ground level. If you have a primocane-fruiting variety such as Heritage, you can prune out all the canes; this will help block cane disease, but all the yield will occur in the late summer to early fall.

Plums, cherries. Prune out any branch swellings or hard, black galls (caused by the black knot fungus). Remove any mummies (shriveled fruits) from the tree and rake out fallen ones under the tree.

Pines. If your Austrian, ponderosa, red, or Scots pine shows symptoms of Diplodia tip blight, apply a fungicide spray (Bordeaux mixture, other fixed coppers, Daconil, etc.) as the buds begin to swell. Make a repeat application 7 to 10 days later, and a third application 7 to 10 days after that if the weather is persistently wet. For control of Dothistroma needle blight on pines, spray symptomatic trees with a labeled fungicide in mid- to late May and repeat about July 1. Also, remove and dispose of any Scots or other pines that are known to be infected with pine wilt.

Iris. Pull out last year's leaves and any nearby plant debris. This practice will help prevent problems with iris borer and bacterial soft rot, as well as delay the appearance of iris leaf spot.

DON'T throw disease-infested plant material into your compost bin unless you make compost "by the book," so that internal temperatures reach 150 to 180 F. Most home compost piles don't generate enough heat to kill disease organisms. If your waste pile fits this description, it's better to burn or bury infested plant wastes, or to have them hauled off.

How to Attract Orioles

By Melissa Mayntz
About.com - Birding/Wildbirds

Whether Baltimore, Bullock's, orchard, hooded or one of the other species of orioles that regularly visit North America, these brightly colored birds are popular backyard guests, and by knowing how to attract orioles you can easily invite them to become regular visitors.



Why We Love Orioles

The bright orange, black and yellow plumage of orioles is a striking contrast to many less colorful backyard birds, and their rich, musical song is welcome to the ears, but these aren't the only reasons orioles are highly desirable backyard birds. Because their preferred foods are nectar, fruit and jelly, they do not scatter seeds throughout the yard, and they also eat a wide range of insects. Backyard birders who know how to attract orioles with the four basic necessities of a bird's life – food, water, shelter and nesting sites – can take advantage of all orioles have to offer.

How to Attract Orioles

To attract any bird to your backyard, you must meet its survival needs. Fortunately, it is easy to do so for the different species of orioles.

- **Food:** Feeding orioles is easy, whether you offer orange halves, dishes of grape jelly or specialized nectar. Planting berry producing bushes, fruit trees and nectar producing flowers are also ways to offer orioles natural food sources. Feeders should be clean and conspicuous, and keep the food fresh to attract the most birds.
- **Water:** All birds need water for cleaning and bathing, and orioles are especially attracted to shallow birdbaths and moving water. Choose a birdbath with a wide but shallow basin and add a bubbler or dripper to attract the most birds. A birdbath with orange decorations or a terra cotta design can also catch orioles' attention.
- **Shelter:** Orioles are shy birds that are typically solitary, though they may be found in pairs during the nesting season or in small groups after young birds have fledged. Offering protected spaces such as leafy deciduous trees and dense shrubs will make the birds feel more secure and welcome. Choose trees and shrubs that are native to your region so the birds will recognize them more easily, and opt for clumps of trees rather than solitary plantings.
- **Nesting Sites:** While orioles do not nest in birdhouses, you can encourage them to build their nests in your yard if you have willow, elm, oak, poplar, cottonwood or similar trees. To make the area even more attractive, offer nesting material such as pet fur, hair, or 4-6-inch lengths of yarn or thread for the birds to weave into their nests.

More Tips for Attracting Orioles

To make your backyard as welcome as possible for orioles and to catch their attention for a suitable habitat...

- Plant flowers in orange hues in your garden near nectar producing blooms, or add an orange gazing ball for a burst of oriole-attracting color.
- Keep oriole feeders separated from human activity and other feeding areas. These are shy birds that may not venture too close to busy areas until they are used to the setting.
- Put oriole feeders out in late March or early April to attract the first spring migrants, and keep feeders out late into the fall for birds moving down from the north. This will maximize the number of orioles that visit your yard.

- Avoid spraying pesticides and insecticides that would eliminate insects in your yard. Insects make up a large part of orioles' diets, particularly during the nesting season.

Do not be disappointed if it is difficult at first to attract orioles to your yard. By providing a safe, suitable habitat with plenty of food sources and other bird necessities, the orioles will soon notice your yard and become regular visitors.

Gardening is cheaper than therapy...

and you get tomatoes. ~Author Unknown

Dividing Herbaceous Perennials

By James Romer,
Department of
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University



Herbaceous
Perennials are

commonly divided to control size, retain vigor, encourage more blooms and increase the number of a particular perennial in the landscape. The best time to divide perennials varies with the different plant species. Below is a list of common perennials that should be divided in spring.

- Aster (*Aster* species) divide every 2 or 3 years.
- Astilbe (*Astilbe* species) divide every 3 or 4 years.
- Baby's Breath (*Gypsophila paniculata*) division is difficult.
- Bee Balm (*Monarda didyma*) divide approximately every third year.
- Blanket Flower (*Gaillardia x grandiflora*) Blazing Star (*Liatris* species)
- Chrysanthemum (*Dendranthema x grandiflorum*) divide every 2 or 3 years.
- Coral Bells (*Heuchera* species)
- Coreopsis (*Coreopsis* species)
- Cornflower (*Centaurea* species) requires frequent division every 2 or 3 years.
- Daylily (*Hemerocallis* species)
- Gooseneck Loosestrife (*Lysimachia clethroides*) plants spread aggressively. Divide every 2 or 3 years.
- Hardy Geranium (*Geranium* species)
- Hardy Zinnia (*Heliopsis helianthoides*) divide every other year.
- Hosta (*Hosta* species) plants can be left undisturbed for years.
- Lily-of-the-Valley (*Convallaria majalis*) plants spread rapidly.

- Obedient Plant (*Physostegia virginiana*) plants spread rapidly. Divide plants every 2 or 3 years.
- Orange Coneflower (*Rudbeckia fulgida*) divide every 3 or 4 years.
- Ornamental Grasses
- Perennial Salvia (*Salvia* hybrids)
- Phlox, Garden (*Phlox paniculata*) divide every 3 to 4 years.
- Phlox, Moss (*Phlox subulata*) divide immediately after blooming.
- Purple Coneflower (*Echinacea purpurea*) divide every 3 or 4 years.
- Shasta Daisy (*Leucanthemum x superbum*) may be short-lived.
- Speedwell (*Veronica* species)
- Spiderwort (*Tradescantia virginiana*) plants spread rapidly. Divide every 2 or 3 years.
- Stonecrop (*Sedum* species)
- Yarrow (*Achillea* species) many of the yarrows spread rapidly. Divide every 3 or 4 years.



Opening Day!

Glenwood's Giving Garden – May 3rd

Did you know Glenwood's Giving Garden donated over 6,700 pound of fresh produce to people in need in our community in 2013?

Volunteers are needed in all areas! Come see what is happening in the Giving Garden on **Opening Day** and learn how you can help.

Activities include:

- Explanation of garden and volunteer opportunities
- Planting of flowers and vegetables
- Healthy refreshments
- Master Gardeners on site

When: Saturday, May 3rd, 9:00 – 12:00 noon

Where: Glenwood's Giving Garden, behind McCormick Station, 24955 Ingrum Ave, Glenwood, IA

Upcoming Horticulture Events of Interest:

Mills County Master Gardener Recognition Banquet

Date: Sunday, April 27th

Time: 5 PM (Social Hour), 6 PM (Dinner)

Place: Vine Street Cellars, Glenwood

This is the 10th annual recognition banquet. The recognition ceremony and business meeting will start at 7 PM.

Mills County Local Foods Meeting

Date: Tuesday, May 6

Time: 5:00 PM

Place: Mills County Engineers Building
403 Railroad Road, Glenwood

Come join a diverse group of community members interested in making locally produced food more accessible, educating children about fresh local food, and creating a local grower's network. Do you have ideas for a grown local group? We would love to hear them. All are welcome!

Opening Day at Glenwood's Giving Garden

Date: Saturday, May 3rd

Time: 9:00 AM - 12:00 Noon

Place: Behind McCormick Station
24955 Ingrum Ave., Glenwood

Tour the garden, plant some flowers and vegetables, enjoy healthy refreshments, and see how you can be a part of this exciting community project! Volunteers are needed in all aspects of running the Giving Garden!

Mills County Master Gardeners Plant/Bake Sale

Date: Saturday, May 10th

Time: 8:30 – 11:00 AM

Place: Parking lot west of Glenwood State Bank

(See Page 6 for details)

Ask the ISU Extension Gardening Expert

When should bare-root trees be planted?

Bare-root trees and shrubs must be planted in early spring before growth begins. If rainy weather or other circumstances prevent planting within a few days of purchase, store bare-root material in a cool location, such as a garage or root cellar, until planting is possible.

What is the proper way to plant a bare-root tree?

Prior to planting, soak the tree's roots in a bucket of water for one to two hours. Also, prune off damaged or broken roots.

When ready to plant, dig a hole that is 2 to 2.5 times wider than the spread of the tree's root system. The depth of the hole should be equal to the distance from the tree's trunk flare to the bottom of its roots. The trunk flare is the point where the trunk begins to spread out as it meets the roots. Build a cone-shaped mound of soil in the center of the hole. Place the tree on top of the mound. The trunk flare should be even with the surrounding soil surface. Spread the roots evenly over the mound. Then begin backfilling with the original soil. As you backfill, firm the soil in the hole with your hands. Place soil to the trunk flare. Finally, water the tree thoroughly.

Many shade and fruit trees are propagated by grafting. The graft union is located near the base of the tree's trunk and is denoted by a bulge or crook in the trunk. The graft union is typically 1 to 3 inches above the trunk flare. When planting bare-root trees, be careful not to confuse the graft union with the trunk flare.

What are some good plum varieties for Iowa?

Cold hardiness is an important factor when selecting plum varieties for home gardens. Japanese plums are not reliably cold hardy in Iowa. However, several European and hybrid plum varieties can be successfully grown in the state.

European plum varieties that perform well in Iowa include 'Mount Royal,' 'Stanley' and 'Damson.' 'Mount Royal' produces small fruit with bluish black skin and greenish yellow flesh. 'Mount Royal' can be grown throughout Iowa. 'Stanley' (dark blue skin, greenish yellow flesh) and 'Damson' (blue skin, yellow flesh) are not reliably cold hardy in northern Iowa, but can be successfully grown in the southern two-thirds of the state.

Several hybrid plum varieties (introduced by the University of Minnesota) possess excellent cold hardiness and can be successfully grown throughout the state. Hybrid plums include 'Alderman' (burgundy red skin, yellow flesh), 'Pipestone' (red skin, golden yellow flesh), 'Superior' (red skin, yellow flesh) and 'Underwood' (dull red skin, yellow flesh).

European plums are self-fruitful. A single tree will bear fruit. Hybrid plums are self-unfruitful. Two or more hybrid plum varieties must be planted to ensure cross-pollination and fruit set. 'Toka' is an excellent pollinator for 'Alderman,' 'Superior,' 'Underwood' and other hybrid plums.

Which apricot varieties can be successfully grown in Iowa?

Cold hardiness is an important factor when selecting apricot varieties for home gardens. Many apricot varieties are not reliably cold hardy in Iowa. However, a few varieties can be successfully grown in the state. 'Moorpark' is reliably cold hardy in the southern two-thirds of Iowa. 'Moorpark' is self-fruitful. A single tree will bear fruit. 'Moongold' and 'Sungold' (University of Minnesota introductions) possess excellent cold hardiness and can be successfully grown throughout the state. 'Moongold' and 'Sungold' are self-unfruitful. Plant at least one tree of each variety for cross-pollination and fruit set.

Plants for Sale!

14th Annual Mills County Master Gardener
Plant & Bake Sale



Saturday, May 10th
8:30 – 11:00 AM

In the parking lot west of Glenwood State Bank

- High quality, low cost plants including annuals, perennials, houseplants, vegetables, ornamental grasses, and more!
- Bake sale items and beautiful plants just in time for Mother's Day!
- Master Gardeners on hand to answer all of your gardening questions!

Proceeds applied to future Master Gardener programs in Mills County

APRIL GARDENING TO DO LIST



- Finish dormant pruning of summer and fall-blooming shrubs before growth begins.
- Begin to fertilize houseplants again.
- Begin hardening off transplants two weeks before planting them outdoors.

- Repair damaged areas in the lawn. As the grass greens, it will be easier to spot these problems. You can purchase lawn repair kits which contain the seed and mulch needed to repair problem areas.
- Divide perennials as new growth begins to emerge.
- Take a soil test if you have not done so or it has been 3 or more years. The Extension office has soil bags and instructions sheets. A soil test will tell you the PH of your soil and how much of what type of fertilizer you need.
- Plant potatoes and onions for harvest in late summer. Wait until the soil has warmed up. Tubers and bulbs planted in cold, wet, soil may rot.
- Plant pansies outside in beds or in containers. These cool season annuals will survive several light frosts, so you can enjoy their color now – long before many other plants will bloom!
- Plant broccoli, cauliflower, kale and lettuce plants mid to late April. Plant peas, lettuce, spinach, radishes and carrots from seed in the garden.
- Plant a tree for Arbor Day (April 27).
- Plant or transplant asparagus, rhubarb, and strawberries.

Resources for Horticulture information

ISU's Hortline at (515) 294-3108

(Monday-Friday, 10 AM-noon, 1-4:30 PM)

Iowa State University Publications

PM 874	Starting Garden Transplants at Home (free)
PM 683	Composting Yard Waste
PM 820	Garden Soil Management
RG 319	When to Divide Perennials
PM 0453	Fruit Cultivars for Iowa
PM 819	Planting a Home Vegetable Garden

Horticulture Publications on-line

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

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