

Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Prepared by Denise Fikes, Mills County Horticulture Assistant

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Planting Strawberries in the Home Garden



Bountiful crops are possible with a little effort.

By Richard Jauron
Extension Horticulturist
Iowa State University

Fresh strawberries are an irresistible treat. They taste great on cereal, pancakes, waffles, and ice cream. They also make excellent jams, jellies, and pies.

Strawberries are well suited to home gardens. They are hardy, easy to grow, and produce a good crop with moderate effort. Early spring (April to early May) is the best time to plant strawberries in Iowa.

Home gardeners can choose from three types of strawberries. June-bearers are the most widely planted type of strawberry. They produce one crop per year, the majority of fruit ripening in June.

A second type of strawberry is the everbearing strawberry. Everbearing varieties typically produce June and late summer/early fall crops with little flowering or fruiting in the intervening weeks.

Day-neutral varieties are the third type of strawberry. Day-neutral varieties can flower and fruit throughout the growing season if temperatures are moderate. Flower and fruit production stop during hot weather.

Suggested June-bearing strawberry varieties for Iowa include 'Earliglow,' 'Allstar,' 'Honeoye,' 'Surecrop,' 'Redchief,' 'Jewel,' and 'Kent.' 'Ozark Beauty' and 'Ogallala' are good everbearing varieties. 'Tristar' and 'Tribute' are the best performing day-neutral varieties.

When selecting a planting site, choose an area that receives full sun and has a well-drained soil. Planting sites should receive at least 6 hours of direct sunlight per day. Leaf and root diseases are often problems in poorly drained, wet soils.

Do not plant in areas that are heavily infested with perennial weeds. Perennial weeds, such as quackgrass, are extremely difficult to control in a strawberry planting. Also, avoid sites where strawberries, tomatoes, potatoes, and peppers have been grown the last two years to prevent possible root disease problems.

Purchase virus-free strawberry plants from a reputable garden center or mail-order company. Plants from an old planting are often disease infested. If planting must be delayed after purchase, place moist material, such as wood shavings or sphagnum moss, around the roots and place the plants in a plastic bag. Store the plants in the refrigerator at 32 to 40 degrees F. They can be safely stored in the refrigerator for one to two weeks.

Remove the strawberry plants from storage when ready to plant. Trim off the older leaves, place the roots of the plants 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.

The type of strawberry determines plant spacing. June-bearing strawberries should be planted 18 to 24 inches apart in rows spaced 4 feet apart. Runners will develop and root freely to form a matted row about 2 feet wide. Everbearing and day-neutral strawberries are typically planted in beds consisting of 2 or 3 rows. Rows are spaced 1 foot apart. Plants are spaced 1 foot apart within the rows. A 2-foot-wide path should separate the beds. Any runners that develop on everbearing and day-neutral strawberries should be removed and the plants maintained as large, single plants.

Immediately after planting, water the strawberry plants and apply a starter fertilizer solution to aid establishment. A starter fertilizer solution can be prepared by dissolving 1 or 2 tablespoons of an all-purpose garden fertilizer, such as 10-10-10, in one gallon of water. Apply 1 to 2 cups to each plant. A starter fertilizer solution can also be prepared using a water soluble fertilizer. Follow label directions when preparing the solution.

During the first growing season all the blossoms should be removed from June-bearing strawberries. Remove all blossoms on everbearing and day-neutral strawberries until early July. Any flowers which bloom after this period may be allowed to develop into fruit. Flower removal aids plant establishment.

Strawberries are an excellent crop for the home garden. When properly planted and given good care, one strawberry plant can yield 1 to 1-1/2 quarts of fruit.

You Know You've Planted it Wrong When...

By John Ball
Professor of Forestry
South Dakota State University



In the news today you can read about the possible threat of a number of new exotic pests. Asian longhorn beetle and the emerald ash borer, among others, have the potential to kill thousands of trees across our nation. But what if I were to tell you there is a problem right now that is responsible for the loss of millions of trees, and in some communities kills one out of ten trees planted. A new borer or blight from Asia or Europe? No-just your average tree planter.

Planting seems like a simple task. Just dig the hole, place the tree green side up, add a little water and you're done. But we must be getting something wrong as many planted trees never see their fifth year at their new home. And even if they survive longer, countless more are doomed to a shortened and stunted life. So how do you know if the tree is planted wrong? Here is the top ten list of ways to recognize a tree has been planted improperly.

You know you've planted it wrong when...

1. **...you picked the tree out from an ad.** Redwoods in Red Oak, Metasequoias in Malvern? It happens when folks pick out their tree from the ads that appear every spring promising "fast-growing, low maintenance trees." Many of these trees are only remotely hardy to the upper Midwest. The ads often have the catch phrase "thrives in almost any location" which should be taken as code words for "don't even think of growing it in Iowa".

2. **...the first time you checked the soil was when you dug the hole.** Too often we assume if the tree can tolerate the climate, it can tolerate the soils. But our typical urban planting site contains a soil that is poorly drained and alkaline. If the pH is above 7.5 and water will not drain within a day from the hole, then the selection of trees to plant is going to be fairly limited. It doesn't mean you cannot plant a tree there - there is a tree for almost every planting site - it just means you need to do your homework before going to the nursery.
3. **...the cost of the soil amendments and supplements you buy cost more than the tree.** Some folks believe you can buy your way out of any planting problem. "If I just add enough acid-forming fertilizer, I'm sure I can grow eastern pin oak on my alkaline soil" is a common hope of many tree planters. But most amendments, be it peat, gels, vitamins, or a host of others, cannot substitute for proper selection and care.
4. **...when you can pull branches out of the soil after you finished planting the tree.** If there is one dominate killer of newly planted trees it is planting too deep. Many folks dig a deep hole, drop the tree in and backfill in the mistaken belief that now the tree can get more water. But roots (and the lower stem) also need air. Always look for the root flare - the point on the stem where the first major roots are attached - and this should be placed just beneath the soil.
5. **...you used the depth in the container as your guide for planting depth.** Many trees at garden centers are sitting too deep in the container. It is difficult to get a tree to support itself in the light container soil and rather than staking, the trees are planted deeper. In the container this rarely results in problems as the light soil mix is well-aerated and drains properly, but once home the planting depth must be corrected.
6. **...you water once whether the tree needs it or not.** Sometimes the newly planted tree gets just enough water to wet the soil and that's it. Newly planted trees, particularly container-grown trees, need close attention paid to watering that first critical year. The light container soils are prone to drying out and don't easily pull in water from the surrounding soil. Folks should make sure to water near the base of the tree, in addition to the surrounding area, that first year to ensure the roots are receiving water.
7. **...your mulch placed around the tree is mistaken for an extinct volcano.** A thin layer, 2 to 4 inches of organic mulch placed in a circle around the tree, is a benefit. It can help retain moisture, reduce competition from grass and keep the lawnmowers and grasswhips at bay. However, a pile of mulch against the trunk can be detrimental. It keeps the lower stem too moist and also provides a home for rodents.

8. **...your staking only protects against vampires.** Young trees often need a little extra support for the first year. The roots in the container were fairly confined and the tree just doesn't have sufficient root spread to allow it to resist a strong wind. But if the tree is staked too high – more than 2/3's its height, too tight – using tightly bound wire and rubber hose, or too long – more than one year, the staking can become a disfigurer or killer.
9. **...you figure you're done when the staking is finished.** Planting is not a one-time event, but a life-long commitment. Ornamental trees are dependent on us for their care. We must provide the training, primarily through pruning, mulching, irrigation and other practices, for these trees to be healthy. That leads into our list topper:
10. **And you know you planted it wrong if you outlive the tree!** While there are some tree species whose life span can be measured in decades, most can live a century or more. A tree that can live for 200 years certainly deserves more than 10 minutes to select it and only another 10 minutes or so to plant it. You only get one chance to plant the tree, and mistakes made at selection or planting cannot be corrected later in life, so take your time and do it right.

Upcoming Horticulture Events of Interest:

Vegetable Gardening Workshop

Monday April 27, 6:30 PM – 8:45 PM
 Location: Mills County Extension Office – Malvern
 Visit www.extension.iastate.edu/mills or call
 (712) 624-8616 for more information
(See page 6 for details on this workshop)

Lauritzen Gardens Spring Fling Plant Sale

Saturday, May 2 and Sunday, May 3
 Regular Lauritzen Gardens hours
 Admission \$7.00 to Gardens and Sale

Mills County Master Gardener Plant/Bake Sale

Saturday, May 9, 9:00 AM – 12:00 PM
 Location: Glenwood State Bank parking lot
 Call (712) 624-8616 for more information.
(See page 6 for details)

Control of Crabgrass in Home Lawns

By Zac Reicher
 Professor and Turfgrass Extension Specialist
 Purdue University Department of Agronomy
 Purdue Extension Education Store: www.ces.purdue.edu/new

Crabgrass is a common weed that infests home lawns in the Midwest. Crabgrass is an annual, warm-season grass that germinates when soil temperatures are

approximately 60° for 3-5 days. Crabgrass is a low growing, spreading plant with light blue-green foliage. It begins flowering and setting seed in July and dies with the first frost of fall. Crabgrass has tremendous survival reproductive capabilities. Although plants are destroyed with the first hard frost, a single crabgrass plant can produce thousands of seeds before it dies. Because of this, it is unrealistic to expect a crabgrass free lawn.

The most effective way to control crabgrass is to create dense, healthy turf. A healthy turf will compete well with crabgrass and prevent it from establishing.

Mowing

- Mow at 2.5 to 3.0 inches depending on the turf species. Mowing below this range will increase crabgrass populations.
- Mow frequently so as not to remove more than 1/3 of the leaf blade at one time. This may mean mowing twice weekly in spring and every other week in summer.

Irrigation

Irrigate deeply and infrequently. Daily, light irrigations promote shallow rooting, non-drought hardy turf, and encourage crabgrass. Water to wet the soil to the depth of rooting, and then do not water again until you see the first sign of drought stress (When stressed, turf will become bluish gray and footprints will remain in the turf after it is walked on).

Fertilization

Apply 2 to 4 pounds nitrogen per 1000 square feet each year to create a dense lawn and reduce crabgrass populations. Apply 60 – 100% of the nitrogen in two applications in fall: one in September and one in November after the final mowing.

Chemical Control

Often, cultural control alone will not control crabgrass satisfactorily, and herbicides may be needed. This is especially true in new lawns or lawns that are thin from damage or improper maintenance. When using herbicides and all pesticides, be sure to read, understand, and follow all label recommendations.

Preemergence Herbicides

Preemergence herbicides prevent emergence of crabgrass plants. These products must be applied prior to crabgrass emergence which could occur as early as April 15 in our area. Purdue research has shown that these herbicides can be applied as early as March 1 and still be effective all season. It is essential to apply these products early in spring prior to crabgrass germination.

Often, preemerge herbicides are combined with fertilizers as weed and feed products. Since fertilization should be minimized in the spring, purchase products with most of the nitrogen in slow release forms such as methylene ureas or sulfur or polymer-coated ureas. Avoid products with mostly quick release nitrogen such as urea or ammonical nitrogen.

Ask the ISU Extension Gardening Expert

Do not use preemergence herbicides on new seedlings or before seeding an area. To be most effective, these products need to be watered-in after application. Refer to the label for specific instructions of each product.

Common names of preemergence herbicides include: *Benefin, Oxadiazon, Benefin/Trifluralin, Pendimethalin, Dithiopr, Prodiamine, and Corn Gluten*

Postemergence Herbicides

Postemergence herbicides control crabgrass after it has emerged and are most effective on small plants. These products are more difficult to use than preemergence herbicides and it is extremely important to follow label instructions. Of the products listed below, quinclorac is safest for turfgrass seedlings. Keep in mind the following when using these products:

- The area must be well-watered prior to application and not under drought stress.
- Do not mow or water for 24 hours following application.
- Apply at temperatures below 85° F. These products are most effective on clear days with low humidity.
- A second application may be needed within seven days for most effective control.
- Refer to the label for use before and after seeding.

Common Names of Postemergence Herbicides include: MSMA (Monosodium methyl arsonate), DSMA (Disodium methyl arsonate), Fenoxaprop, and Quinclorac

Do not attempt to control crabgrass with herbicides after mid –July because the plants are usually too large to control effectively. It is better to simply tolerate the crabgrass until it dies with the first frost.

By maintaining a dense lawn, you can limit the amount of crabgrass. Proper fertility, mowing, and watering is essential for crabgrass control; consider herbicidal control only if necessary.

Don't Miss an Issue!!

*If you have not contacted the Extension Office to ask to remain on the mailing list for the **PlantWise** and **Acreage Living** Newsletters, or to switch to receiving them electronically, **do not delay!** If we do not hear from you by **April 25, 2009** this will be your **LAST ISSUE!***

Extension programs are available to all without regard to race, color, national origin, religion, sex, or disability.

I have oystershell scale on my lilac. How can they be controlled?

The oystershell scale is a common insect pest in Iowa. It can be found on a wide range of trees and shrubs. Plant hosts include ash, lilac, willow, maple, apple, pear, plum, cotoneaster, linden, and viburnum.

The oystershell scale is a small (1/20 to 1/8 inch long), elongated, oyster-shaped insect. The insect is concealed beneath a waxy, shell-like covering that varies from light to dark brown. Oystershell scale overwinters as eggs underneath the scale covering of the mother. In Iowa, eggs typically hatch from mid-May to early June. The tiny white to pale yellow “crawlers” move about on the plant looking for suitable feeding sites. The “crawlers” begin to develop a protective, waxy cover almost immediately after they begin to feed.

Oystershell scale attaches itself to the branches and trunks of trees and shrubs and sucks sap from plant cells. Heavy scale infestations may cause yellowing of foliage, stunting, and dieback of twigs and branches. Weakened trees and shrubs are vulnerable to additional insect and disease problems.

Contact insecticides do not penetrate the protective coverings of most scale insects. The best way to control oystershell scale is to apply an insecticide when the crawlers are present. Effective insecticides include insecticidal soap, horticultural oil, Sevin, permethrin, and others. The insecticide must be applied before the tiny insects develop their protective, waxy coverings.

When should I fertilize hybrid tea roses?

Fertilize hybrid tea and other modern roses three times a year. The first application should be made in early spring after pruning. Put on the second application during the first bloom period (typically late May or early June). The third application should be made in mid to late July. Use an all-purpose garden fertilizer, such as 10-10-10. Sprinkle 1/4 cup around each plant. Do not fertilize after July 31. Late summer fertilization will encourage succulent new growth. Late season growth may not harden off properly before winter and be susceptible to winter injury.

Grant Money Available for Installing a Rain Garden!

Contact the NRCS at 624-8606 if you want to learn more about REAP Grants of \$500 per home owner for installing a rain garden.

Spring Lawn Care



Take care when applying lawn fertilizer in the spring.

By Dave Minner
Extension Turfgrass Specialist
Iowa State University

Spring is here and a few things done now will help your lawn deliver the appeal and durability that you expect during the summer. Lawns fertilized last fall will green up quicker this spring; a little nitrogen in April or May will help those lawns that didn't get fertilized last spring.

Extra care should be taken when applying any fertilizer or pesticide to the lawn. The lawn is like a sponge and is very good at trapping water and reducing runoff, but it does no good if lawn care products are spread onto hard surfaces like sidewalks and driveways and then washed into the storm water drainage system. Do your part to sweep or blow granular products back into the lawn where they stay put.

After things have greened up and the lawn has been mowed twice, it will be time to look for broadleaf weeds. It's hard to miss the yellow flowered dandelions that are a clear indicator of weeds taking over the lawn.

Your goal should be to use a broadleaf herbicide on the entire lawn until weeds are reduced to about 10 percent of the total area; then just spot treat the individual weeds. Liquid herbicides provide better coverage that usually leads to more effective weed control. Granular weed and feed products are more convenient, but it is important to apply them when the lawn is wet, so that the dry pellets stick to the wet leaves, allowing uptake of the herbicide by the weeds.

As temperatures continue to warm and the grass grows a little faster, count on mowing the lawn each week at a cutting height of 2.5 inches. This helps you from violating the one third mowing rule; never remove more than one third of the plants' total height. Clippings that are 1.0 to 1.5 inches long easily filter into the turf canopy and do not need to be bagged. The clippings actually add nitrogen fertilizer back into the lawn and help feed worms. There's no need to fill the landfill with perfectly good worm food; it makes it hard for them to go fetch it.

A final strategy in spring lawn care is to not start watering too soon. This is sometimes difficult for those with automatic irrigation systems since they are anxious to get started on the irrigation season. It is best to wait until the lawn starts to naturally wilt in the summer before you start to irrigate. A little bit of wilting does not hurt the lawn; in fact, wilting signals the plant to grow more roots deeper in the ground that will help during extended dry periods later in the summer. You are wasting water if you irrigate before the lawn starts to wilt. Once the lawn watering season begins, then your goal should be to water deep and infrequently. Lawns usually need about an inch of water per week. Apply your water in one or two days and then try to wait a week until the lawn starts to wilt again.

Developing your lawn care strategy early in the spring will let you sit back and enjoy the green green grass of summer.

APRIL GARDENING TO DO LIST



- Work organic material into your garden and flower beds or fertilize with 2 lbs. of 5-10-5 fertilizer per 100 square feet.
- 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. Or you can make your own lawn patch by mixing a handful of a quality grass-seed mix into a bucket of topsoil. Prepare the soil and spread the seed and soil mixture. Mulch to conserve moisture.
- Do not fertilize recently repotted, divided, or propagated houseplants. Give them time to establish new roots. Established houseplants can be fertilized as needed.
- Begin hardening off transplants two weeks before planting them outdoors.
- 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 instruction sheets. Current fee for the testing service is \$8.00 per sample. A soil test will tell you how much and what type of fertilizer you need.
- Assess animal and winter damage to roses. Remove only dead and damaged canes on Old Roses, including climbers. These roses bloom on the previous season's growth. Major pruning is done after flowering.
- Finish dormant pruning of summer and fall-blooming shrubs before growth begins.
- Remove tree wrap from trunks of trees and winter fencing.
- Plant or transplant asparagus, rhubarb, and small fruit plants such as strawberries and brambles. Divide rhubarb and replant if seedstalks were produced last year.
- 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.

PLANTS FOR SALE!

It's Time for the Annual
**Mills County Master Gardeners
Plant & Bake Sale!**



Saturday, May 9
In the parking lot west of
Glenwood State Bank
9:00 AM – Noon



High quality, low cost plants including
annuals, perennials, houseplants, vegetables,
ornamental grasses and more!

*Purchase raffle tickets for a beautiful quilt!

*Bake sale items available just in time for all
your Mother's Day company!

*Master Gardeners on hand to answer all of your
gardening questions!

**All proceeds applied to future Master Gardener
horticulture programming in Mills County**

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

- PM 1788 Growing Fruit in Iowa (\$3.00)
- NCR 0025 Lawn Weeds and Their Control (\$7.25)
- PM 874 Starting Garden Transplants at Home (\$.50)
- PM 1591 Community Tree Planting & Care Guide (\$1.00)
- PM 0819 Planting a Home Vegetable Garden (\$.50)
- PM 534 Planting & Harvesting Times for Garden Vegetables (Free)
- RG 310 Caring for Roses in Iowa (free)

Horticulture Publications on-line

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

Work Day Set for Nature Center

Plans are underway for renovating the
Nature Center located at

*Northeast Elementary School
in Glenwood*
Saturday April 18 9:00AM - NOON

This will be a work
day dedicated to clearing out several
dead or overgrown
trees and shrubs.
Any and all help
would be greatly
appreciated. Just come and bring your
trimmers, pruners, rakes, shovels,
wheelbarrows, and chain saws!

*Let's create a special place for our
children to learn in and enjoy*

Vegetable Gardening Workshop

Sponsored by ISU/Mills County Extension

Date: **Monday, April 27**

Location: **The ISU Extension Office in Malvern**

Session 1: 6:30 –7:30 PM Basics of Vegetable Growing

This session is designed for the novice gardener who
may have never grown vegetables before, or someone
for whom it's been a long time since they last had a
vegetable garden.

Session 2: 7:40 – 8:45 PM Taking Your Vegetable Garden
to the Next Level – Growing to Sell at a Farmer's
Market

This session will discuss growing several of the most
popular vegetables for selling at a farmer's market. It
will include additional information and resources about
becoming a farmers' market vendor.

Cost: **\$4.00 includes both sessions.** The workshop is
open to anyone. You may choose to attend either or both
sessions.

Speakers: Bernie Havlovik , Farm Superintendent at
Armstrong Research Farm & Leah Riesselman,
Horticulturist