



Shelby County Extension

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Upcoming Events:

May 7th- Sheep and Goat Weigh In

May 16th- Livestock ID Deadline to Extension Office

May 24th- First session of Summer Gardening Series

Fieldwork and garden work is getting under way, fueled by some very nice days so far in April. As you get out and about and start planning and planting, take time to read through this month's newsletter for tips and ideas. New materials are available for corn and soybean production reference, and we have some upcoming seminars on gardening that we will be hosting here this summer. If you have questions about varieties for recommended garden planting, check out our "ask the expert" section for some great ideas on getting a home garden to thrive. As always, if you have a specific question you can't find the answer to, give me a call and we can work to find an answer. Happy Planting!!

-Kate Olson, Program Coordinator

DID YOU KNOW??

Ag and Hort Update is also available online!! The current and past issues are archived on our county homepage: www.extension.iastate.edu/shelby. Online newsletters also contain active links to get you to websites and publications mentioned in the articles! Contact me to be added to our email list.

Ask the ISU Garden Expert

Get answers to all your yard and garden questions at www.yardandgarden.extension.iastate.edu. For specific questions, call the Hortline at (515) 294-3108, or email hortline@iastate.edu, Monday-Friday from 10 a.m. to noon and 1:00 to 4:30 p.m.

When should I plant potatoes in Iowa?

Potatoes should be planted in early spring. Appropriate planting times are late March or early April in southern Iowa, early to mid-April in central Iowa, and mid to late April in northern portions of the state. Plant seed pieces (cut side down) and small whole potatoes 3 to 4 inches deep and 1 foot apart within the row. Rows should be spaced 2.5 to 3 feet apart.

When planting potatoes, do I need to purchase certified seed potatoes?

Since potatoes are susceptible to several serious diseases, buy certified, disease-free potatoes at garden centers and mail-order nurseries. Potatoes that remain from last year's crop may carry undetectable diseases. Potatoes purchased at supermarkets (for table use) may have been treated to prevent sprouting. Best results (excellent quality and high yields) are obtained with certified seed potatoes.

When cutting potato tubers into pieces prior to planting, what is the proper size for the sections?

Small potato tubers may be planted whole. Large potatoes should be cut into sections or pieces. Each seed piece should contain one or two "eyes" or buds and weigh approximately 1.5 to 2 ounces. After cutting the tubers into sections, place the freshly cut seed pieces in a humid, 60 to 70 degree Fahrenheit location for one or two days. A short "healing" period allows the cut surfaces to callus or heal over. Callused seed pieces are less likely to rot in cool, wet soils.

What are some good potato varieties for Iowa?

Several potato varieties (cultivars) perform well in Iowa. A list of recommended potato varieties (along with a brief description of each) is available at <http://www.extension.iastate.edu/article/ask-isu-extension-garden-experts-about-growing-potatoes>

There are also varieties with unusual colors and shapes. 'All Red,' for example, is a mid-season variety that produces medium-sized tubers with red skin and pale pink flesh. 'All Blue' has deep blue skin and blue flesh. 'Russian Banana' produces small, banana-shaped tubers, which are excellent in salads. Heirloom and novelty varieties are tasty and fun additions to the vegetable garden.

When is the best time to plant asparagus?

Early spring (April) is the best time to plant an asparagus bed in Iowa. Since asparagus is a perennial crop, carefully consider possible sites. Asparagus performs best in well-drained soils in full sun. In poorly drained sites, raised beds may be a solution. Avoid shady sites near large trees and buildings.

What are some good asparagus varieties for home gardens in Iowa?

Asparagus is dioecious. Dioecious plants produce separate male and female plants. Male asparagus plants live longer and are more productive than female plants. Excellent all-male asparagus varieties for the home garden include 'Jersey Giant,' 'Jersey Knight,' 'Jersey King,' and 'Jersey Supreme.' 'Mary Washington' and 'Martha Washington' are good standard asparagus varieties. (A planting of 'Mary Washington' or 'Martha Washington' will include both male and female plants.) 'Purple Passion' is a distinctive variety with purple shears.

How do you plant asparagus?

Asparagus crowns should be planted in shallow trenches or furrows. The planting depth depends on the soil type. Asparagus crowns should be planted 6 to 8 inches deep in light, sandy soils, but only 4 to 6 inches deep in heavier soils. A small amount of well-

rotted manure can be worked into the soil at the bottom of the trench before planting. Space the crowns 12 to 18 inches apart in rows that are 4 to 5 feet apart. Spread the roots out in the trench with the buds pointing upward. After planting, completely fill in the trench with soil. (Though commonly done in the past, it's not necessary to gradually fill in the furrow as the plants grow.)

After planting asparagus, how long must I wait before I can begin to harvest spears?

Asparagus plants should be allowed to become well established before any spears are harvested. No spears should be harvested during the first growing season. Asparagus can be harvested over a three to four-week period during its second growing season. In following years, asparagus plantings can be harvested until early to mid-June. Harvest asparagus by cutting or snapping the spears when they reach a height of 6 to 8 inches.

Can I move an established asparagus bed?

The roots of established asparagus plants are deep and quite extensive. As a result, transplanting attempts are usually unsuccessful. Large, old plants will be severely injured during the transplanting procedure. Some may die. Those that survive may never produce a good crop. The best way to establish an asparagus planting is to purchase one-year-old plants or crowns from a garden center or mail-order nursery.

What would be a good planting site for strawberries?

When selecting a planting site, choose an area that receives full sun and has a well-drained soil. Planting sites should receive at least six 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 within the last two years to prevent possible root disease problems.

What are some good strawberry varieties for the home garden?

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 fruit in June and late summer/early fall with little flowering or fruiting in the intervening weeks.

Day-neutral varieties are the third type of strawberry. Day-neutral varieties 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 establishing a new strawberry bed, can I move plants from an existing bed or should I purchase plants from a garden center?

Purchase plants from a reliable garden center or mail-order nursery. Plants from an old planting may be disease infested. Plants purchased from reputable garden centers and mail-order nurseries should be disease-free.

I can't plant my strawberries because the soil is too wet. What should I do with the plants?

If planting must be delayed after purchase, place moist material, such as wood shavings or sphagnum moss, around the plant's roots and place the plants in a plastic bag. Store the plants in the refrigerator at 32 to 40 degrees Fahrenheit. The strawberries can be safely stored in the refrigerator for one to two weeks.

What is the proper way to plant strawberries?

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 two or three rows. Space rows 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 one or two tablespoons of an all-purpose garden fertilizer, such as 10-10-10, in one gallon of water. Apply one to two cups to each plant. A starter fertilizer solution can also be prepared using a water soluble fertilizer. Follow label directions when preparing the solution.

I planted strawberries this spring. Do I need to remove this year's blossoms?

During the first growing season, all the blossoms should be removed from June-bearing strawberries. If the flowers are allowed to develop into berries, their development will reduce plant growth, runner production and the size of next year's crop. Check the strawberry plants once a week and remove the blossoms by pinching or cutting. Flower production on June-bearing strawberries should stop by early July.

With everbearing and day-neutral strawberries, remove all blossoms until early July. Any flowers that bloom after this period may be allowed to develop into fruit. The first berries should ripen in August and continue until frost.

Garden Natives and Invasives Webinar Series Offered by Master Gardener Program

The Iowa Master Gardener program is once again offering a series of summer webinars. The 2011 series, titled "Garden Natives and Invasives," will be hosted by Iowa State University Extension county offices on the fourth Tuesday of the month, May through August. The Shelby County Extension Office is one of the host locations. Each session will run from 6:30 to 8:30 PM on the date indicated, and cost \$5/participant. Individuals may attend whichever sessions interest them and are not committed to the entire series. Topics include:

"Plant Communities of Iowa," the first session in the series, is scheduled for May 24. During this session, the history and relevance of native ecosystems across Iowa will be discussed; including geology, soils, climate and human intervention. Information on the role plant culture, such as aspect, slope and soil type, plays in proper plant selection will also be discussed. By learning some of these principles, participants will be better able to design their own landscapes using native plants. Suggested species of native plants for each plant community will be mentioned. The session presenter is Howard Bright of Ion Exchange, Inc., Harpers Ferry, Iowa.

"Identification and Management of Invasive Woody Plants in Iowa" is the session scheduled for June 28. It will look at some of Iowa's most notorious invasive woody plants, their potential impacts and the life history characteristics of woody plants that increase the likelihood of their invasiveness. Additional topics will be a closer look at how a specific invasive plant (common buckthorn) contributes to the establishment of other invasive pests, and a citizen-scientist project that participants can join to help manage buckthorn. Two presenters from Iowa State University – Jan Thompson, Department of Natural Resource Ecology and Management, and Matt O'Neal, Department of Entomology – will conduct this session.

Participants will discover the history and reach of the Tallgrass Prairie Center during the third session

on July 26. The Tallgrass Prairie Center develops research, techniques, education and source-identified seed for restoration and preservation of prairie vegetation. Daryl Smith, from the Tallgrass Prairie Center and University of Northern Iowa, Cedar Falls, is the presenter.

The final session on August 23, *"Native Friends and Invading Forces,"* will highlight the importance of native species and discuss the problems and related issues with invasive species in Iowa. An attempt will be made to define the elusive terms "native" and "invasive." Participants will learn about appropriate and inappropriate uses of native materials, and also tips on selection of plant materials for use in landscapes with a better chance of not overstaying or overgrowing their welcome. Because gardening success is often largely dependent on choosing materials to fit planting sites, an exploration of reasonable site adaptations will be included in the session. The program will help tie together information that has been presented in earlier programs in the series and will be presented by Rich Pope, Harrison County Extension Coordinator from Logan, Iowa.

For more information on the series, visit <http://www.mastergardener.iastate.edu/info/summerwebinar2011.html> or contact the extension office.

Save Tractor Fuel by 'Shifting up, Throttling Back' By Mark Hanna, Department of Ag and Biosystems Engineering

Tractor operations represent a significant portion of annual on-farm fuel costs. Rising fuel prices present a challenge for Iowa's farmers as they prepare for spring field work. A new publication from Iowa State University Extension illustrates the "shift up, throttle back" technique to reduce tractor fuel consumption and related expenses. "Shift Up and Throttle Back to Save Tractor Fuel" (PM 2089M) is available to download from the Extension Online Store, www.extension.iastate.edu/store. It can also be picked up at your local Extension office.

This year's rising temperatures are accompanied by rising fuel prices, striving to get the best

performance from any tractor can help farmers to reduce costs by conserving fuel. Late-model tractors with “infinitely” or “continuously” variable transmissions are designed to automatically perform at maximum fuel efficiency, but older models need more attention. Spring field work requires varying amounts of drawbar force depending on the size of the tractor, the size of the implement and soil conditions. With a partial drawbar load, the fuel efficiency of a diesel engine is fairly forgiving if the operator will “shift up and throttle back.”

The first step to reduce fuel consumption is remembering to shift up to a higher gear and ease back on the throttle when the tractor is only partially loaded. This technique alone can easily improve fuel savings by 10 percent. For more tips on tractor maintenance, visit the farm energy website; educators should consider registering for the upcoming Farm Energy webinar on May 11.

The Farm Energy webinar and publications are part of a series of farm energy conservation and efficiency educational materials being developed through the ISU Farm Energy Initiative. The purpose is to increase farmers’ awareness of opportunities for improving efficient use of farm energy. The initiative also will help farmers and utility providers to explore alternatives to reduce farm energy demand and to improve overall profitability in a rapidly changing energy environment.

Popular Soybean Disease Publication Now Available as E-Book

Soybean Diseases,” the popular Iowa State University (ISU) Extension and the Iowa Soybean Association (ISA) publication, is now available as an e-book. The publication, released in print version in December 2010, was written by Daren Mueller, ISU Extension specialist with the Corn and Soybean Initiative, and his ISU Extension colleagues Alison Robertson, plant pathologist; Greg Tylka, nematologist; and Adam Sisson, ISU Corn and Soybean Initiative specialist. Funding was provided by the Iowa soybean checkoff and ISU Extension.

The “[Soybean Diseases](#)” e-book features full-screen, high-resolution images of 25 diseases that infect soybeans grown in Iowa. The e-book version of ‘Soybean Diseases’ is an interactive publication, complete with animated turning pages. An image enlargement is generated when the reader clicks on an illustration or photograph in the e-book. This capability makes it easier for those with only web access to use and benefit from the detailed photographs and information in the publication.

The ‘Soybean Diseases’ e-book not only enables readers to identify disease-related problems of soybeans, it also provides management options. It includes videos of how to sample and manage two of Iowa’s most troublesome pathogens, soybean cyst nematode and sudden death syndrome.

Printed copies can be ordered from the [ISU Extension Online Store](#) or by calling the store at 515-294-5247, or contacting the Iowa Soybean Association at 800- 383-1423. The e-book version is also available from the extension online store; search for “soybean diseases” to order or access the publication.

Pollination Requirements for Tree and Small Fruits

By Richard Jauron, Department of Horticulture

In the flower, pollination is the transfer of pollen from the anther to the stigma. After pollination and fertilization, fruit set occurs. There are two types of pollination. **Self-pollination** occurs when the pollen is transferred from the anther to the stigma on the same flower, from another flower on the same plant, or from a flower on another plant of the same variety. Self-pollinated plants are said to be **self-fruitful**. Many plants cannot produce fruit from their own pollen and are considered **self-unfruitful**. These plants require **cross-pollination** for fruit set. Cross-pollination is the transfer of pollen from one plant to the flower of a genetically different plant or variety. Pollination is an important factor when selecting and planting tree and small fruits. A list of pollination requirements for the various fruits is presented on the following page.

Fruit Trees

Apples -- Apples are regarded as self-unfruitful. Most apple varieties will set a small crop with their own pollen. For maximum production, however, plant at least two different varieties with overlapping bloom periods to insure cross-pollination and fruit set.

Apple cultivars can be classified as early, mid, and late season blooming. The bloom periods of early and mid-season bloomers overlap, permitting adequate cross-pollination and fruit set. Good pollination can also be expected with mid and late blooming varieties. However, the bloom periods of early and late blooming varieties may not overlap, resulting in poor pollination.

(Additional information on blooming times can be found in Pm-1052 "Tree Fruit Pollination" and Pm-453 "Fruit Cultivars for Iowa." These publications are available online at the ISU Extension Store or from your local Extension office.) Most flowering crabapples will pollinate nearby apple trees if they bloom at the same time.

Apricots -- Few apricot varieties are reliably hardy in Iowa. 'Moongold' and 'Sungold' are hardy throughout Iowa and self-unfruitful. Plant at least one of each for proper pollination. 'Moorpark' can be successfully grown in central and southern Iowa. 'Moorpark' is self-fruitful.

Cherries, Sour -- Sour, or pie, cherries are self-fruitful.

Cherries, Sweet -- Most sweet cherries are not reliably hardy in Iowa. Most varieties are self-unfruitful. 'Gold' and 'Black Gold' can be successfully grown in central and southern Iowa. 'Gold' is self-unfruitful. 'Black Gold' is self-fruitful. ('Black Gold' will pollinate 'Gold'.)

Peaches -- Peaches are not reliably hardy in much of Iowa. Most peach varieties are self-fruitful.

Pears -- Most European pears are self-unfruitful. Plant at least 2 different varieties for maximum fruit production.

Plums -- Japanese plums are not reliably hardy in Iowa. However, European and hybrid plums can be successfully grown in the state. European plums are partially to entirely self-fruitful. Hybrid plum varieties (crosses between American and Japanese plums) are self-unfruitful. Plant 2 or more hybrid plum varieties to insure cross-pollination and fruit set. European plums will not pollinate hybrid plums and vice versa.

Fruit trees which require two different varieties for pollination should be planted within 50 to 100 feet of one another to insure good fruit set.

Small Fruits

Blackberries -- Blackberries are self-fruitful.

Blueberries -- Plant two or three different varieties for maximum production.

Currants -- Currants are self-fruitful.

Elderberries -- Elderberries are essentially self-unfruitful. Plant two or more varieties to insure good fruit set.

Gooseberries -- Gooseberries are self-fruitful.

Grapes -- Grapes are self-fruitful.

Raspberries -- Raspberries are self-fruitful.

Strawberries -- Strawberries are self-fruitful.

Home gardeners should keep these fruiting requirements in mind when selecting tree and small fruits for the home garden.

Corn Growth Classic Rewritten and Available to Order

ISU Extension's corn production team has completed a new publication. "Corn Growth and Development" (PMR 1009) replaces "How a Corn Plant Develops," the previous Iowa State publication that served as the standard reference on corn growth and development for more than 40 years.

"How a Corn Plant Develops," written by Iowa State University agronomists of previous eras, established the basics still used today for staging and communicating about crop development. The late John Hanway, a well-known ISU agronomist, wrote the first version in 1966, which was followed by a rewrite in 1982 by Steven Ritchie, Hanway and Garren Benson.

"We knew from the very beginning that if we were going to remake this classic publication, we would need to contribute something new and fresh and have some very talented people on our team," said Lori Abendroth, ISU associate corn agronomist. "Otherwise, there wouldn't be a point to redo it because it already was very useful and popular." Authors of "Corn Growth and Development" are Abendroth; Roger Elmore, ISU Extension corn specialist; Matthew Boyer, former ISU agronomy graduate student; and Stephanie Marlay, ISU agronomy specialist.

The 2011 publication provides an in-depth look at corn, from the moment the seed is planted all the way to maturity. It takes much of what is known about crop physiology and combines that with field agronomics to provide students, corn growers and agronomists the current and technical information they want and can use.

"To develop the new publication, we conducted multiyear research trials, read piles of research papers, grew hundreds of plants for the photography sessions and spent hours working with editors and designers," Abendroth said. One of the first steps was to conduct biomass and nutrient accumulation research, followed by four years of various research trials to fine-tune

recommendations and facts in the book, and a year of growing plants for the publication images.

Much of the framework that was successful in the previous versions, including numerous color images and graphics, and descriptive text, has been retained in the new book. "Corn Growth and Development" is more than twice as long as the original, featuring 50 full-color pages, and is based on a new generation of corn hybrids and production research.

The new publication weaves the newest scientific facts regarding corn growth and development throughout the pages in a way that is concise and easily applicable for people in production agriculture. Key features include:

- more than 90 images, including whole-plant images from emergence to maturity
- detailed descriptions of vegetative and reproductive development
- new dry matter and nutrient (N, P and K) accumulations figures
- clarification of corn development staging methods
- an expansive list of end notes with agronomic research references

"Corn Growth and Development" can be ordered from the ISU Extension Online Store at www.extension.iastate.edu/store for \$14 per copy. Publication images will soon be available to purchase and download from the same location.

..and justice for all

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