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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.

Upcoming Events:

- **October 2-8- National 4-H Week**
- **October 5- Aquatic, Forest and Roadside Commercial Pesticide Applicator Training**
- **October 27- Mosquito and Public Health Commercial Pesticide Applicator Training**

It's time once again to turn our thoughts to harvesting crops and vegetables, as well as preparing our fields and lawns for the coming cooler weather. I would like to encourage you to all to think about safety this harvest season. Have a great fall!

-Kristen Rutherford, Program Coordinator

DID YOU KNOW??

Ag and Hort News is also available online!! Each month's newsletter is posted online, and past issues are archived on our county homepage: www.extension.iastate.edu/shelby. Just click on the Ag and Hort News in the county news feed and find the month you are looking for!! Best of all- online newsletters contain active links to get you to websites and publications mentioned in the articles! If you would like to receive an email when the latest issue is posted online, just email me (kristenr@iastate.edu) or get a hold of me at the Extension office with your email address!

Yard and Garden: Harvest and Store Fall Produce

Harvesting vegetables at the right stage of maturity results in nutritious, high quality products. This article provides information for harvesting and storing winter squash, pumpkins and gourds.

What is the proper way to harvest and store winter squash?

Harvest winter squash when the fruit are fully mature. Mature winter squash have very hard skins that can't be punctured with your thumbnail. Additionally, mature winter squash have dull-looking surfaces.

When harvesting winter squash, handle them carefully to avoid cuts and bruises. These injuries are not only unsightly, they provide entrances for various rot-producing organisms. Cut the fruit off the vine with a pruning shears. Leave a 1 inch stem on each fruit.

After harvesting, cure winter squash (except for the acorn types) at a temperature of 80 to 85 F and a relative humidity of 80 to 85 percent. Curing helps to harden their skins and heal any cuts and scratches. Do not cure acorn squash. The high temperature and relative humidity during the curing process actually reduce the quality and storage life of acorn squash.

After curing, store winter squash in a cool, dry, well-ventilated location. Storage temperatures should be 50 to 55 F. Do not store squash near

apples, pears or other ripening fruit. Ripening fruit release ethylene gas, which shortens the storage life of squash.

When properly cured and stored, the storage lives of acorn, butternut and Hubbard squash are approximately five to eight weeks, two to three months, and five to six months, respectively.

When should I harvest my pumpkins?

Pumpkins can be harvested when they have developed a deep, uniform orange color and the rind is hard. Mature pumpkins can also be left in the garden/field until the vines are killed by a frost or light freeze.

When harvesting pumpkins, handle them carefully to avoid cuts and bruises. Cut the pumpkins from the vines with a sharp knife or pair of lopping shears. Leave several inches of stem attached to each fruit. A pumpkin with a 3 to 5 inch stem or handle is more attractive. Also, pumpkins with stems are less likely to rot. Do not carry pumpkins by their stems. The stems may not be able to support the weight of the pumpkins and may break off.

After harvesting the pumpkins, cure them at a temperature of 80 to 85 F and 80 percent relative humidity for 10 days. Curing helps to harden their skins and heal any cuts and scratches.

After curing, store pumpkins in a cool, dry place. Storage temperatures should be 50 to 55 F. When storing pumpkins, place them in a single layer where they don't touch one another. Good air circulation helps to prevent moisture from forming on the surfaces of the fruit and retards the growth of decay fungi and bacteria. Placing pumpkins in piles generates unwanted heat, which may result in the rotting of some fruit. Promptly remove and discard any pumpkins that show signs of decay.

When should I harvest gourds?

Harvest gourds when the stem attached to the fruit begins to dry and turn brown. Since the rind or skin is susceptible to bruising or scratching, handle the gourds carefully. Cut the gourds from the vines with a hand shears, leaving a few inches of the

stem attached to the fruit. After harvesting, gently wash the gourds in warm, soapy water to remove any dirt. Then wipe the gourds with a soft cloth dampened in a household disinfectant. The disinfectant should destroy decay organisms which could lead to fruit rot. Finally, dry each gourd with a soft cloth.

Dry or cure the gourds by placing them in a warm, dry, well-ventilated location, such as a garage or shed. Place the gourds in a single layer on clean newspapers or shelves. Space them so they don't touch one another. Turn the gourds frequently and promptly remove any which show signs of decay. Large gourds also can be dried by hanging them from beams or rafters. Drying or curing will take several weeks. Approximately one to two weeks will be required for the outer skin to dry and harden. Internal drying will take several additional weeks. The gourds have been adequately dried when the seeds rattle inside.

Yard and Garden: Apples and Pears

Storing apples at home is convenient and, if done properly, can be economical. Important keys to a long storage life for home-grown apples are picking at the proper time and storing correctly.

When should I harvest apples?

A taste test is the best way to determine when to harvest apples. Mature apples are firm, crisp, juicy, well-colored and have developed the characteristic flavor of the variety. Color alone is not a reliable indicator of maturity. Red Delicious apples, for example, often turn red before the fruit are mature. Fruit harvested too early are astringent, sour, starchy and poorly flavored. Apples harvested too late are soft and mushy.

What are the proper storage conditions for apples?

The temperature and relative humidity during storage are critical for maximum storage life. Optimum storage conditions for apples are a temperature of 30 to 32 degrees Fahrenheit and a

relative humidity between 90 and 95 percent. When provided with optimum storage conditions, 'Jonathan' and 'Red Delicious' apples can be stored up to three to six months. Apples stored at a temperature of 50 F will spoil two to three times faster than those stored at 32 F. Apples will shrivel during storage if the relative humidity is low.

What are the black spots or blotches on my apples?

The problem may be sooty blotch and flyspeck. Sooty blotch and flyspeck are two different fungal diseases that often occur together on apples. Sooty blotch appears as dark brown to black, ½ inch or larger smudges on the surface of the apple. Flyspeck produces clusters of shiny, round, black dots. Individual dots are about the size of a pinhead. Environmental conditions that favor disease development are moderate temperatures and extended wet periods in late summer/early fall.

Sooty blotch and flyspeck live on the surface of the fruit. Damage is mainly cosmetic. The apples are still safe to eat. They're just not very attractive.

Cultural practices and fungicides can help control sooty blotch and flyspeck. Proper pruning of apple trees and thinning of fruit promote drying and help reduce disease severity. Fungicides may also be necessary.

If control measures fail, sooty blotch and flyspeck can be removed with vigorous rubbing.

When should I harvest pears?

Pears should not be allowed to ripen on the tree. If the fruit are left on the tree to ripen, stone cells develop in the fruit giving the pear a gritty texture. Tree-ripened fruit are also poorly flavored. Harvest pears when the color of the fruit changes from a deep green to a light green. Also, the small spots (lenticels) on the fruit surface change from white to brown. At the time of harvest, the fruit will still be firm, not soft.

How do I ripen pears?

Pears should be ripened indoors at a temperature of 60 to 70 F. The ripening process should take seven to ten days. To hasten ripening, place the fruit in a sealed plastic bag. Pears give off ethylene gas which accumulates in the bag and promotes ripening.

What are the proper storage conditions for pears?

Store unripened pears at a temperature of 30 to 32 F and a relative humidity of 90 percent. Pears can be stored for approximately one to three months. Remove stored fruit about one week prior to use.

There are tan-colored, rough spots on the surface of my pears. Is it possible to prevent this from occurring?

Russetting is probably responsible for the tan-colored spots on your pears. Russetting also develops on the surface of apples. While affected fruit are not attractive, russetting doesn't affect the eating quality of the fruit.

Several factors may be responsible for russetting. High humidity, rainfall or heavy dew, cold temperatures and use of certain fungicides may induce russetting. Genetics also play a role in russetting. Some pear varieties are more likely to develop russetting than others. Since most factors responsible for russetting are beyond our control, little can be done to prevent its occurrence.

Yard and Garden: Planting Spring-Flowering Bulbs

To enjoy tulips, daffodils and other spring-flowering bulbs, gardeners must plant them in the fall. The reward for proper planting, once varieties have been selected (there are several thousand daffodil varieties) and bulbs purchased, will be beautiful spring gardens.

When is the best time to plant tulips and daffodils?

October is the ideal time to plant tulips, daffodils and other spring-flowering bulbs in Iowa. When planted in October, spring-flowering bulbs have sufficient time to develop a good root system before the ground freezes in winter. If weather permits, bulbs can be planted as late as mid to late November.

How deep should I plant tulips and daffodils?

Plant spring-flowering bulbs at a depth equal to three to four times their maximum bulb diameter. Accordingly, tulips and daffodils should be planted 6 to 8 inches deep, crocuses and grape hyacinths only 3 to 4 inches deep. Large bulbs, such as tulips and daffodils, should be spaced 4 to 6 inches apart. A 3-inch-spacing is adequate for crocuses, grape hyacinths and other small bulbs.

Plant spring-flowering bulbs in clusters or groups to achieve the greatest visual impact in the garden. When planting daffodils and tulips, plant 10 or more bulbs of the same variety in an area. Smaller growing plants, such as grape hyacinths and crocuses, should be planted in clusters of 50 or more bulbs.

What are suitable planting sites for tulips, daffodils and other spring-flowering bulbs?

Tulips, daffodils, hyacinths, grape hyacinths and crocuses perform best in locations that receive at least six hours of direct sun per day. Siberian squill, snowdrops and snowflakes prefer sites in partial to heavy shade.

Tulips, daffodils and most other spring-flowering bulbs require well-drained soils. Bulb rot may be a problem in poorly drained soils. In poorly drained sites, planting in raised beds is a good option.

How can I keep squirrels from digging up newly planted tulip bulbs?

Several things can be done to make it difficult for squirrels to dig up tulip bulbs. When planting tulips

and other spring-flowering bulbs, make sure they are planted at the proper depth. Plant tulips, daffodils and hyacinths 6 to 8 inches deep. Smaller bulbs, such as crocuses and grape hyacinths, should be planted 3 to 4 inches deep. As you place soil over the bulbs, carefully tamp down the soil with your hands or foot. Then water the planting area. Planting the bulbs at the proper depth and firming the soil should make it more difficult for the squirrels to dig up the bulbs. While the aforementioned measures should help, the best way to prevent squirrels from digging up tulips and other bulbs is to cover the planting area with a piece of chicken wire or hardware cloth. Bricks or other heavy objects can be placed on the fencing material to keep it in place. It should be safe to remove the fencing material in winter when the ground freezes.

Are there any spring-flowering bulbs that rabbits and deer won't eat?

Rabbits and deer are quite fond of tulips and crocuses. However, rabbits and deer seldom bother daffodils, hyacinths, grape hyacinths, Siberian squill and ornamental onions.

Yard and Garden: Over-wintering Bulbs

Perennials such as tuberous begonias, gladioli, cannas and dahlias are an integral part of many home landscapes. They put on excellent displays of color until a killing frost. Unfortunately, they will not survive our harsh winter weather outdoors and must be dug in the fall and stored indoors through the winter months. Cultural and winter storage requirements for several commonly grown tender perennials are provided by ISU Extension horticulturists.

How do I over-winter my gladiolus bulbs?

Carefully dig up the plants with a spade in late summer/early fall. Gently shake off the soil from the bulb-like corms. Then cut off the foliage 1 to 2 inches above the corms. Dry the corms for two to three weeks in a warm, dry, well-ventilated location. When thoroughly dry, remove and discard

the old dried up mother corms located at the base of the new corms. Remove the tiny corms (cormels) found around the base of the new corms. Save the small corms for propagation purposes or discard them. Place the corms in mesh bags or old nylon stockings and hang in a cool, dry, well-ventilated location. Storage temperatures should be 35 to 45 degrees Fahrenheit.

How do I over-winter dahlias?

Several days after a killing frost, cut the plants back to within 2 to 4 inches of the ground. Carefully dig up the tuberous roots with a spade or shovel. Gently shake off the soil, then cut the stems back to the crown. Wash the tuberous roots to remove any remaining soil. Allow the tuberous roots to dry for about 24 hours. After drying, place the dahlia clumps upside down in boxes or other containers and cover them with vermiculite, peat moss or wood shavings. Store the dahlias in a cool (40 to 50 F), dry location.

How do I over-winter cannas indoors?

Cut the plants back to within 4 to 6 inches of the ground a few days after a hard, killing freeze. Then carefully dig up the canna clumps with a spade or garden fork. Leave a small amount of soil around the cannas. Allow them to dry for several hours. Afterwards, place the cannas in large boxes, wire crates or in mesh bags. Store the cannas in a cool (40 to 50 F), dry location.

How do I over-winter tuberous begonias?

Carefully dig up the tuberous begonias within a few days of a killing frost. Leave a small amount of soil around each tuber. Cut off the stems about 1 inch above the tubers. Place the tubers in a cool, dry area to cure for two to three weeks. After curing, shake off the remaining soil, then bury the tubers in a small box containing peat moss, vermiculite or sawdust. Store the tubers in an area with a temperature of 40 to 50 F. Do not allow the tubers to freeze.

How do I over-winter caladiums?

Carefully dig up the caladiums when the foliage droops and begins to yellow with the onset of cool fall temperatures or wait until after the first hard frost. Place the plants in a warm, dry location for one to two weeks to cure. Afterwards, cut off the dry foliage and bury the tubers in peat moss or vermiculite. Store the tubers in a cool (60 to 65 F) dry location.

Road Safety: A Shared Responsibility

AMES, Iowa -- Getting harvest from the field to market can be dangerous work, but doing it in traffic on Iowa's highways and county roads extends the hazards to other drivers and their passengers. Conditions creating additional risks on Iowa roadways during harvest are drivers who don't understand how to avoid collision with agricultural equipment, those who are driving distracted and heavier than normal traffic on rural highways due to flooding and construction detours.

Charles Schwab, Iowa State University Extension farm safety specialist, says highway safety is a shared responsibility for both the motor vehicle operators and agricultural equipment operators. Both have reasons and rights to be on those roads.

Agricultural equipment operators need to remember that vehicle drivers, especially those rerouted to rural highways, may not have the necessary understanding to avoid collision with agricultural equipment: how to approach a slow moving vehicle (SMV), left turns of equipment and how to pass oversized equipment and unique shapes of combines. Schwab reminds operators of agricultural equipment to make sure all SMV emblems are properly mounted, not faded, and to always signal before making turns.

"Motorists may be unfamiliar with the outlines of farm equipment, especially at dusk when operators are returning from fields or moving between fields. Unfamiliarity can cause a split-second delay in reaction that, in many cases, can lead to a collision," he says.

Schwab says proper lighting and marking for farm vehicles is only half of the solution. Motor vehicle drivers also must be attentive, watch for farm traffic and heed the signs especially in the weeks ahead.

“Motor vehicle operators need to be patient, show understanding and not drive distracted – rushing and not paying attention to the road causes opportunities for collisions,” he warned. “It is important to understand the issue about coming upon a SMV when traveling at a high rate of speed.”

Defensive driving tips for rural roads

Schwab offers these defensive-driving tips for rural roads this fall:

- As soon as you see a slow-moving vehicle (SMV) emblem, brake as if you were approaching a stop sign.
- Look for hand or turn signals from the farm vehicle operator, indicating a left turn.
- When passing, make sure you can see the farm vehicle in your rearview mirror before you get back in your lane.

While farm tractors and other farm equipment comprise a small percent of total motor vehicles nationally, the percentage of fatal motor vehicle collisions involving farm equipment is almost five times higher than other vehicle collisions. In crashes involving farm vehicles, the farm vehicle operator was killed nearly twice as often as an occupant of the other motor vehicle.

The most likely types of collisions are left-turn and rear-end collisions. The left-turn collision happens when the farm vehicle is about to make a wide left turn and the vehicle behind begins to pass. The second most common incident is the rear-end collision, where another vehicle approaches farm equipment and is unable to slow down to avoid a collision. This happens because of large difference in travel speeds of these two types of vehicles.

“Vehicle drivers must stay alert, especially in areas where rural roadways are experiencing heavier

than normal traffic due to flooding and construction detours,” Schwab cautioned. “Higher speeds used on rural roads, changeable conditions and a variety of traffic all contribute to injuries. Motorists must stay attentive and watch for farm traffic, which can be difficult to spot, recognizing it travels at much slower speeds than normal traffic.”

Schwab also reminds vehicle drivers that agricultural equipment operators in these areas will be limited in their ability to use the shoulder as they move down the road, since shoulder conditions could have changed considerably this summer because of flooding (washed away, weak or steeper than before).

Producers are Encouraged to Monitor Grain this Fall

AMES, Iowa – As harvest begins around the state, farmers are encouraged to be aware of the potential for development of molds and fungus in corn. Recent warnings by Iowa State University (ISU) Extension and Outreach’s Integrated Crop Management (ICM) staff about hail-damaged corn in northwest Iowa help draw attention to the issue, according to ISU Extension swine program specialist Matt Swantek.

“The concern is not only for crop farmers, but for those feeding corn to livestock,” Swantek said. “Pork producers whose corn fields experienced hail late this summer should be monitoring grain for contamination and either avoid feeding contaminated grain to pigs or explore alternative strategies for utilizing this corn in their feeding programs.”

It’s recommended that suspect fields be harvested as early as possible because molds and toxins worsen as they remain in the field, he said. Normally, there is no increase as grain is stored.

The presence of mycotoxins in corn can have long-term effects, including effects on sell weights of pigs a year or more in the future.

“High levels of mycotoxins in the 2009 corn crop led to longer days on feed, lower gains and poorer feed efficiencies in operations in 2010,” Swantek said. “Pigs were held in barns longer because weight gains were slower, and sell weights were 10 to 20 pounds lighter than targeted by producers.”

The effects of those lower efficiencies carried over into 2011 albeit in a different way.

“2011 sell weights were higher than 2010 because those having to feed contaminated grain until the 2010 crop reached storage and usage grew accustomed to slower gains and lighter sell weights,” Swantek said. “Thus, when the ‘clean’ 2010 corn was fed, pigs ate more, and grew faster, consequently catching many unprepared and selling hogs much heavier than expected.”

Being aware of any contamination in corn or feed stocks now also can help producers better plan for the financial uncertainty of grain markets, he said. Late summer reports of lower yields for the 2011 crop and record low 2010 ending stocks may force grain prices to new highs and mean additional higher pressures on cost of production and lower returns.”

A great information source on molds and fungus is available from the Iowa Pork Industry Center website. Written by ISU swine nutrition specialist John Patience and clinician Steve Ensley with ISU’s Veterinary Diagnostic and Production Animal Medicine department, “Mycotoxin Contamination of Corn: What it is, what it does to pigs, and what can be done about it” (IPIC12) can be viewed and downloaded at no charge.

New Publication Helps Farmers Avoid Over-dried Corn

AMES, Iowa – When corn harvesting conditions allow optimal time for in-field drying, taking full advantage can reduce on-farm energy consumption. A new publication from Iowa State University Extension and Outreach explains the

basic principles of energy management for grain drying.

“Improving Corn Drying Efficiency” (PM 2089Q) is available to download from the Extension Online Store, <https://store.extension.iastate.edu/>.

This publication explains corn moisture content, plant physiology and the fundamental principles of drying corn following harvest. Topics include in-field drying, considerations for selecting earlier maturing hybrids and recommendations for holding corn “wet and cold” through the winter. When conditions allow, implementing some or all of these techniques can help growers reduce fuel bills for grain drying.

“Both over-drying and under-drying corn can lead to wasted energy and lost grain quality,” said Shawn Shouse, ISU Extension agricultural engineer. “Consider options to reduce your drying needs and manage your drying system closely during changing weather and grain conditions to reduce energy use and maintain grain quality.”

For more tips on energy efficiency around the farmstead, visit <http://farmenergy.exnet.iastate.edu> or follow @ISU_Farm_Energy on Twitter.

The Farm Energy 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 opportunities to reduce farm energy demand and to improve overall profitability in a rapidly changing energy environment.

..and justice for all

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