



THE GARDEN SPADE



A monthly Gardening Publication of the University of Missouri Extension -- Southeast and East Central Regions

Plant Legends

by Sarah Denkler

Growing up we are told of legends and myths. Many evolve around plants. Below are some traditions that we think about during the holidays and some that we may not know at all.

Jack O'Lantern

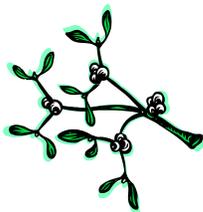
Stingy Jack invited the Devil to have a drink but didn't want to pay. He tricked the Devil into becoming a coin to buy the round but instead kept the coin in his pocket next to a silver crucifix, preventing the Devil from changing back. Jack finally freed the Devil under the conditions that the devil would not bother Jack for one year and that, if Jack died, he would not claim his soul. The following year, the Devil was ready to punish Jack. Jack fooled the Devil into climbing a tree to pick a piece of fruit and while there Jack carved a sign of the cross into the tree trapping the Devil. This time Jack made the Devil promise that he would not bother him for 10 years. Jack died soon after and God refused him entry because of his unsavory deeds while the Devil refused him as he had already promised not to claim his soul. He was sent back to the living where he could only appear at night with a



piece of burning coal to light his way. Jack put the coal into a carved turnip, roaming the Earth ever since known to the Irish as 'Jack of the Lantern' but to others as Jack O' Lantern.

Mistletoe

An old Norse myth says that Frigga, a Norse goddess, made every plant, animal and inanimate object promise not to harm her newborn son Baldur but forgot mistletoe. Loki, a Norse God, fashioned a dart from the plant and placed it in the hand of Baldur's brother Hodor, the God of Darkness, offering to guide his hand while teaching him to shoot darts. Loki guided the dart directly into Baldur's heart. Frigga's tears of mourning were so wretched that the hapless mistletoe



took pity on her forming milky white berries from her tears. This was the demise of Baldur- a vegetation deity in the Norse myths - and it was the sadness of his death that brought winter into the world. Other Norse gods took pity on Frigga and restored Baldur's life. Overjoyed, Frigga pronounced the mistletoe sacred and ordered that it should be used to bring love into the world instead of death. Complying with Frigga's wishes, any

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two people passing under the mistletoe would now celebrate Baldur's resurrection by kissing beneath it. This tradition evolved in England in kissing a lady beneath the mistletoe at Christmas.

Shamrock

The symbol of the Irish and a Celtic luck emblem, when Saint Patrick came to Ireland to convert the Druids to Christianity, he was challenged by a chief to explain the Trinity, three gods in one person. Patrick plucked a shamrock from the ground and pointed to its three leaves growing from one stem. Seeing the new doctrine in the old Celtic lucky symbol, the chief became a Christian, and the shamrock became legend.



Heath

In the British Isles, a wonderful and renowned heather mead (beer) was made by the Picts (people that lived in Scotland before the Scots). The secret recipe for this brew was known to a small number

but after a war between Celtic tribes only two Picts remained who knew the secret, a father and son. The son was put to death during interrogation to scare the father into revealing the information. The father refused, glad that his son was gone as the conquerors might have forced the gullible youngster to reveal the secret. The father could not be forced, taking the recipe to his grave, never allowing the barbarians to enjoy the heavenly brew.

Poppies

In Greek mythology, Hypnos, the god of sleep, created a poppy drink to quell the grief of the corn goddess Demeter whose daughter, Persephone, had been abducted to the underworld. While Demeter mourned, famine covered the land. Hypnos's drink forced Demeter into a state of gentle slumber and healing. She awakened comforted, and the world was made green again. To this day some farmers sow poppies among the corn plants to ensure a healthy harvest.



Time To Turn In Master Gardener Hours!

By Donna Aufdenberg

It is time to turn in your **Master Gardener Volunteer Hours!** If you have already completed your volunteer hours for the year, please send them to your local Master Gardener Coordinator. Addresses and contact information for coordinators are located on the last page of this newsletter.

If you need a new copy of the Master Gardener Service Record Sheet, you can find it at <http://mg.missouri.edu/mgforms.htm> or contact your local coordinator and they will send you one.

You can also report directly to the Master Gardener program assistant.

<http://report.missourimastergardener.com/>

Every year we update the Master Gardener Directory. If you have not turned in Master Gardener Hours for 3 years, you will be moved to the inactive list. If you have not turned in hours in previous years however, you still want to be involved, please let us know! If any of your information has changed (address, phone, or email), please let us know.

These hours are important to us! They help ensure the continuance of the program.

If you have problems reporting hours, let one of us know...we are here to help!

November Gardening Calendar

By Donna Aufdenberg

Ornamentals

- Prevent frost cracking or sunscald by wrapping trunks with commercial tree wrap or painting the south and southwest facing sides of the trunk with white latex outdoor paint.
- Take a walk through your garden as the fall season winds down. Take time to reflect on the successes and failures of your garden this year. Make notes in your gardening notebook for new things to try, and things to fix, next spring.
- After several killing frosts have occurred this fall, cut back dormant perennials to about 3 inches above ground.
- Check the moisture level in soil around evergreens before winter weather begins. Dry soils can lead to dieback or death of shrubs.



Vegetables

- Have garden soil tested for fertilizer needs every three to five years.
- Fall tilling, except in erosion-prone areas, helps improve soil structure and usually leads to soils warming up and drying faster in the spring, thus allowing crops to be planted earlier.
- Rhubarb plants that are 4 years old can be divided and transplanted. A site prepared by deep digging and incorporating compost will pay off with a good yield in upcoming years.
- If you use manure as a soil conditioner, apply it now and till it under. Manure can be a source of weed seed. Composting before application can reduce the number of viable seeds.
- To prevent insects or diseases from over-wintering in the garden, remove and compost all plant debris.

Fruits

- Break crust on the surface of any sawdust mulch you have around fruits, shrubs, and perennials to improve the absorption of water from fall rains.
- Fallen, spoiled or mummified fruit should be cleaned up from the garden and destroyed by burying.
- Mulch strawberries for winter with straw. This should be done after several nights near 20 degrees, but before the temperatures drop into the teens. Apply straw loosely, but thick enough to hide plants from view.

Indoor Plants

- Move plants closer to windows or to sunnier exposures, such as west and south facing windows if plants are dropping many leaves.
- Continue dark treatment for poinsettias by keeping them in complete darkness from 5 p.m. to 8 a.m. until early December or until the color on the bracts start to show.

Did you know? Seed Company Beginnings...

BURPEE

In 1876, W. Atlee Burpee started a business of breeding poultry. He later added raising and selling Border Collies, sheep, goats and even calves. He later added seeds when farmers who had emigrated to America from different parts of Europe started complaining about their vegetable crops.

Check out the story at:
<http://www.burpee.com/gardening/content/the-legacy-of-w-atlee-burpee/legacy.html>

PARKS SEED

In 1868, a 15 year old named George W. Park started selling seeds that he had harvested in his backyard. He started with an eight page catalogue that had two illustrations - an aster and a pansy.

Check out the story at:
<http://parkseed.com/aboutparkseed/a/50/>



Mulching

by Sarah Denkler

When thinking of mulch the first thing that comes to mind is finely chopped wood mulch used on flower beds so there is a minimal amount of labor required. When correctly applied mulch can

- * maintain a cooler soil environment in summer and warmer one in winter
- * reduce large temperature fluctuations in soil
- * prevent loss of water from soil by slowing evaporation
- * decrease moisture fluctuations in the root zone
- * reduce weeds
- * reduce or eliminate soil compaction
- * protect the trunks of trees and shrubs from damage by lawn equipment
- * prevent soil splashing, slowing erosion and reducing soil-borne diseases on plants
- * prevent crusting of the soil surface, improving absorption and movement of water into soil
- * improve the soil structure as organic mulch decays, adding nutrients to the soil
- * increase water-holding capacity of sandy soils as organic mulch decomposes
- * maintain a loosely aggregated soil environment helping to increase root growth

When considering what mulch to use remember that it should not be applied so deeply as to hinder water or air movement into the soil. Mulch should not be a fire hazard and should be attractive and uniform in color as well as weed-free. Make sure mulch is not so light as to blow away and it should not be piled up in contact with woody bark causing bark to remain wet and decay.

A thin layer of mulch, one inch or less, will need to be replenished more often, will not cover the ground well enough to suppress weeds and may not conserve moisture as effectively as a deeper layer. However, heavy soils may become waterlogged if mulch is applied too high decreasing the amount of oxygen available to plants in soil. This will result in shallow roots and in winter could result in active plant growth as the soil may remain

too warm. Ultimately the depth of mulch will depend on the type of soil. A sandy soil can withstand a thicker level of mulch on the surface while a soil higher in clay will not. A common practice is to apply 3 to 4 inches of mulch to the surface. This may be altered based on the results that you witness on your property.

There are organic and inorganic mulches. Organic is natural and will decompose into soil while inorganic is either man-made or rock. These

inorganic materials do not decompose readily but in some cases can breakdown over time becoming less affective.

Examples of each type follow here.

Organic Materials

Shredded bark, wood chips, shavings: May cause nitrogen

deficiency/ (pine, cypress, oak, or other hardwood)/ decomposes/ may attract termites.

Straw: Highly flammable/ may have weed seeds/ winter protection or vegetable garden/ improves soil as it rapidly decays.

Sawdust: Robs soil of nitrogen if fresh/ use composted/ tends to cake/ improves soil structure.

Pine needles or straw: Decompose slowly/ interlocks/ stays in place/ allows air, water and nutrients to penetrate/ limited availability/need large quantity/ can be fire hazard/winter protection.

Newspaper: layers or shredded/ prevents weeds/ prevents soil splashing and disease on leaves.

Cocoa-bean hulls: Expensive, compacts forming a crusty surface/ may form mold on surface.

Corncobs: Limited availability/ decomposes slowly/ may retain moisture/ great for trees and shrubs/ excellent mulch for raspberries.

Crushed corncobs: Retains moisture/ compacts/ limited availability.

Grass clippings: The best use for grass clippings is to leave them on the lawn. They decompose



Mulching

by Sarah Denkler

rapidly, adding nutrients back into the soil. Dried grass may be used as short-term mulch but be careful of herbicide residues that may harm plants.

Leaves: Shredded will suppress weeds, add organic matter to soil and decompose quickly while leaf mold will suppress weeds, form a mat barrier. Dry leaves may pose a fire hazard.

Pecan shells: Limited availability/ long-lasting

Ground cover: Perennial plants (ivy, periwinkle, pachysandra, Mondo grass and liriopie) cover soil.

Hops: Nonflammable, poor odor/ may blow.

Peat moss (sphagnum): May blow away, acid-forming, best used as a soil amendment.

Inorganic Materials

Clay aggregates (heated): Sterile/ expensive.

Weed-barrier fabric or woven cloth: Sterile/ deteriorates in sunlight so must be covered/ allows water and air to move through/ controls weeds in soil/ may develop weeds above fabric.

Recycled tires: Limited supply/ expensive/ does not decompose/ heat builds up around homes.

Artificial pine needles: Expensive/ long lasting

Gravel, crushed stone, pea gravel, pebbles:

Available in many colors/ permanent/ weeds develop/ needs fabric below/ creates heat build-up around homes from solar reflection/ no pests.

Black plastic: Black polyethylene film/ prevents weeds/ breaks down in sunlight/ holds water in soil and prevents it from infiltrating/ best in vegetable rows with a soaking hose below plastic/ clear plastic does not suppress weeds .

Geotextiles: Polypropylene or polyester fabric/ breaks down in sunlight/ allows water to penetrate soil/ weeds may grow above fabric in mulch cover and through the fabric.

Other possible mulches work better as soil amendments but could be used either way. Peat moss (sphagnum) is light but acidic, peanut hulls break down quickly adding some nitrogen to soil but have limited availability, shredded coconut fiber holds moisture better than peat but has a limited availability and manure will add nitrogen to soil but may contain weeds and has an unpleasant odor.

For more information take a look at Starbuck, C. Mulches. G6960 University of Missouri Extension.

Pest of the Month: Chickweed

by Katie Kammler

You may be thinking that it is November, why are we still talking about weeds? Because common chickweed is a broadleaf winter annual and it germinates in the late summer to early fall. It thrives in this kind of weather and many plants have emerged with the rain we have been receiving.

Common chickweed can be found in many lawns and flowerbeds where it forms dense prostrate patches. It may also form more upright growth if un-mowed. The leaves are light green, broadly egg-shaped with



points at the tip, and are arranged opposite on the stem. The roots are fibrous and shallow, making it easy to pull. The flowers are small, white, and deeply lobed. The seeds are minute, allowing it to spread easily.

Chickweed cannot tolerate hot dry conditions and usually dies out by midsummer so control may not be required. Maintaining a dense, vigorous lawn will help reduce its spread. It can also be chemically controlled with several pre-emergence and post-emergence broadleaf herbicides. Now is an ideal time to control it before it blooms and sets seeds for next fall.

Fall Colors

by Marcy Wright, Master Gardener

We all enjoy the colors of autumn leaves. The changing of fall foliage never fails to surprise and delight us. Did you ever wonder how and why a fall leaf changes colors? Why a maple leaf turns bright red while other leaves turn orange and yellow?

Leaves are nature's food factories. Plants take water from the ground through their roots. They take a gas called carbon dioxide from the air. Plants use sunlight to turn water and carbon dioxide into oxygen and glucose. Oxygen is a gas in the air that we need to breathe. Glucose is a kind of sugar. Plants use glucose as food for energy and as a building block for growing. The way plants turn water and carbon dioxide into oxygen and sugar is called photosynthesis. That means "putting together with light." A chemical called chlorophyll helps make photosynthesis happen. Chlorophyll is what gives plants their green color.

As summer ends and autumn comes, the days get shorter and shorter. This is how the trees "know"

to begin getting ready for winter.

During winter, there is not enough light or water for photosynthesis. The trees will rest and live off the food they stored during the summer. They begin to shut down their food-making factories. The green chlorophyll disappears from the leaves. As the bright green fades away, we begin to see yellow and orange colors. Small amounts of these colors have been in the leaves all

along. We just can't see them in the summer, because they are covered up by the green chlorophyll.

The bright reds and purples we see in the leaves are made mostly in the fall. In some trees, like maples, glucose is trapped in the leaves after photosynthesis stops. Sunlight and the cool nights of autumn cause the leaves to turn glucose into a red color. The brown color of trees like oaks is made from wastes left in the leaves.

It is the combination of all these things that make the beautiful fall foliage colors we enjoy each year.



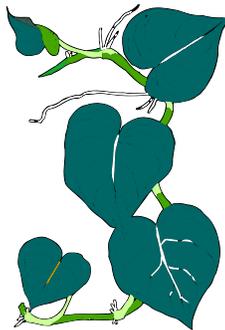
Plants Dangerous To Pets

by Donna Aufdenberg

Pets are very important to us! My family just brought home a new puppy and she is into everything...chewing and tasting anything she can find. With bringing in my houseplants, I have had to rethink where they are placed.

Dangerous Plants! Poisonous!!

These plants will need to be kept out of reach! Some are deadly and some can lead to gastrointestinal distress. Anthurium, Amaryllis, Caladiums, Chinese Evergreen,



Dumbcane (dieffenbachia), English Ivy, Fishtail Palms, Lantana, Philodendron, Pothos, Schefflera, and Peace Lily.

Safe Plants! Non-Poisonous!

These plants are safe to leave sitting on the floor or on lower shelves. Ficus, Fittonia, Ferns, Violets, Christmas Cactus, Coleus, Dracaena, Geraniums, Impatiens, Jade, Kalanchoe, Norfolk Pines, Orchids, Palms, Peperomia, Sedum, Spider Plants, Swedish Ivy, Wandering Jew and Hoya.

Seasonal Recipe: Apple Cake

by Katie Kammler

Apple Cake

1 cup oil 3 cups flour
2 cups sugar 1 tsp. salt
2 eggs 1/2 tsp. cinnamon
2 tsp. vanilla 1 cup pecans
3 cups cubed apples

Mix oil and sugar, add eggs and beat. Mix in vanilla, flour, baking soda, cinnamon and salt. Batter can be really thick, if so add 1/4 cup milk. Then add apples and nuts. Bake in a greased 9x13" pan at 325° for one hour.

Icing

6 tbsp. melted butter
1/4 cup milk
2/3 cup brown sugar
1/2 tsp. vanilla

Mix and put on cake while still hot. This is a great cake for fall and also freezes well.



Horticulture Oil To Control Pests

by Donna Aufdenberg

Various horticulture oils can be used to smother soft bodied insects such as aphids, scale, mealy bugs and mites on contact. They are highly refined petroleum oil or plant-derived oil. These oils are sold as either summer or dormant oils.

Dormant oils are a heavier weight and usually used on outdoor, dormant plants to control overwintering insects. Dormant oils will damage plants if used during the growing season. Summer oils (also called foliar oils) are lighter and more refined and can be applied to both actively growing and dormant plants.

Horticultural oil affects pests by blocking the insects breathing holes (spiracles). It prevents gas exchange through egg membranes, so eggs also die. The oils can also block the feeding parts on some

insects. These oils pose little risks to people or to beneficial insects. The only risk to plants is when temperatures and humidity are high. This makes plants prone to burning and necrosis.

Precautions:

- Avoid using on oil-sensitive plants.
- Avoid using when temperature and relative humidity are high.
- Do not apply oils during freezing weather.
- Do not apply in combination with sulfur products.
- When spraying, protect floors and wall, as the oils can stain and leave a residue.
- Read all pesticide labels and follow directions and safety recommendations thoroughly!

Horticulture oils can be found at most garden, nursery and farm supply retailers.



Unusual Crop: Aronia

by Donna Aufdenberg

Aronia (*Aronia melanocarpa*) sometimes called black chokeberry, is a deciduous shrub native to Eastern North America. It is used in some landscapes for its white flower clusters in late spring and its colorful red foliage and dark colored berries in fall.

Aronia is a great plant for edible landscaping which has become popular here in the last several years.

This shrub is cold hardy to USDA Hardiness Zone 3. It can grow 6-8 feet tall and an equal width having many stems. It is known to sucker and fill in the spaces between shrubs leaving a hedge like appearance.



It tolerates many soil types but prefers a slightly acidic soil. Aronia has very few pests or diseases.

Aronia berries are reported to be too astringent and have tannins which make them unsuitable to eat, however, they can be used to make juice, juice extracts, jelly and wine.

In the United States, it has been used in the commercial industry for coloring juices with

poor color stability. In other countries, it has been used with apple juice for coloring, used with grapes to make wine and is well known for its antioxidant capabilities.



Ligularia, a Proven Winner

by Sarah Denkler

Ligularia 'Bottle Rocket' is a perennial that will grow in as little as 4 hours of sun or full sun in any soil type. The base of this plant holds large, green leaves that are dense in habit. Being the shortest of the *Ligularia*, it grows as tall as 28 inches showing bright yellow candles of bloom in midsummer.

The flowers should be deadheaded after bloom. It is equally wide being deer resistant and attractive to butterflies and hummingbirds. It will grow in zones 4 to 9 and likes moisture so will work well in a rain garden or boggy area. This plant is great as a centerpiece in a container or used as a cut flower. Divide clumps in spring. Some will recognize this plant by the names leopard plant or elephant ears. The yellow bloom will contrast nicely with darker purple foliage.





Group News - What's Happening

November 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	Contact your local Extension Center if you have questions about any event on the calendar.			1	2	3
4	Parkland MG, 6:30pm @ Botkin Lumber Co. in Farmington Industrial Park	Poplar Bluff MG, 6:00pm Holy Cross Episcopal Church	7	8	9	10
11	Madison Co MGs, 6pm, Fredericktown Ext. Center		14	15	16	17
18	Ste. Genevieve MG Meeting, 6:30pm, at the Ste. Genevieve Co. Ext. Center		21	22	23	24
25	Perry Co. MG 6:30 pm, Perry Co. Ext. Center		28	29	30	
					Deadline: Record 2012 Volunteer Hours!!	

December

- 3 - Parkland MGs 1st Monday at 6:30pm, Botkin Lumber CO, Frmgntn Industrial Park
- 4 - Poplar Bluff MGs 1st Tuesday at 6:00pm, Holy Cross Episcopal Church
- 10 - Perry Co. MG Christmas Dinner and Mtg, 6 p.m., Perryville Ext. Center
- 13 - Delta Area MGs 2nd Thursday at 7:00pm, Medical Arts Building, Sikeston, MO
- 17 - Ste. Genevieve MGs 3rd Monday, at Ste. Gen. County Ext. Center at 6:30pm
- 20 - Cape Girardeau County MGs 3rd Thursday at Cape County Ext. Center at 7pm
- 24 - Perry County MGs 4th Monday at the Perry County Ext. Center at 6:30pm

Upcoming Events

- January 10-12, 2013 Great Plains Growers Conference in St. Joseph, MO
- February 9 - Perry County Master Gardener Spring Symposium
- February 26 - Organic Vegetable Garden Program; Poplar Bluff, MO
- March 2 - Garden Symposium; Mineral Area College in Park Hills, MO
- March 9 - Cape Girardeau County MG Spring Seminar in Cape Girardeau, MO

If you have a horticultural related event for the calendar call 573-686-8064 to add it.

Editor's Corner

The Garden Spade is published monthly by University of Missouri Extension staff for individuals and families living in Southeast and East Central Missouri. This newsletter is provided by your local extension council.

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We welcome and encourage Master Gardener groups and individuals to submit items to the newsletter. We encourage the submission of any news such as upcoming volunteer opportunities, community events related to gardening, warm wishes or congratulations to fellow gardeners. We also encourage Master Gardeners sharing experiences and writing articles on timely topics.

All entries into the group news sections must be received by 4:30 on the 15th of each month for the following months news.

Email News to: kammlerk@missouri.edu, denklers@missouri.edu, or aufdenbergd@missouri.edu

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Time To Turn In Your Volunteer Hours For 2012!!

The Master Gardener Hour Reporting form can be found at <http://mg.missouri.edu/mgforms.htm>