



# THE GARDEN SPADE



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

## Native Pollinators

By Katie Kammler

It is the season that we think of harvest. Gardens are finishing up for the year and farmers are out in the fields, bringing in the crops. None of this would be possible without the help of pollinators.

About 90% of all flowering plants need the help of pollinators to move pollen

from flower to flower for the plants to be able to produce fruits and seeds.

Most people think of honeybees

when pollination is mentioned but pollinators include many types of bees, flies, beetles, wasps, ants, butterflies, moths, birds, bats, lizards, and small mammals. Animals pollinate approximately 75% of the crop plants grown worldwide for food, fiber, beverage, condiments, spices, and medicines.

Native pollinators play an important role in providing our food. They are adapted to local climate conditions, soils, and plant life. Therefore they require limited management or maintenance. Native bees are the most important group of



pollinators. In Missouri there are over 400 species of bees, including 10 species of bumblebees. This includes the European honey bees which are an exotic species first introduced into North America in 1622. They are found throughout the US because we manage them for their pollination services and honey production.

You can encourage native pollinators by planting a pollinator friendly garden. Using native plants similar to what is found in our local region will encourage native pollinators to visit. Choose several colors of flowers and provide a mix of flower shapes to accommodate different species. Also choose plants that bloom throughout the growing season, spring through

fall. Plant flowers in clumps because that is more attractive to pollinators than individually scattered plants (and it makes for a more attractive landscape too!)

Consider host plants to feed caterpillars as well as nectar plants for adult butterflies. Other considerations include paying close

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**Extension**

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## Native Pollinators

By Katie Kammler

attention to the labels on pesticides because they may have a detrimental effect on pollinators. Consider using biological and botanical controls and encourage beneficial predators while practicing peaceful coexistence. I know many people are afraid of bees but if you leave them alone, usually you will not get stung and the bees can continue their important jobs.



### Bee and Butterfly Plants

|                   |             |                  |                |
|-------------------|-------------|------------------|----------------|
| Aster             | Bee Balm    | Black-eyed Susan | Blazing Star   |
| Columbine         | Coneflower  | Currant          | Daisies        |
| Foxglove          | Goldenrod   | Jewelweed        | Joe-pye weed   |
| Lead plant        | Lupine      | Milkweed         | Obedient Plant |
| Sage              | Spirea      | Stonecrop        | Sunflowers     |
| Virginia Bluebell | Wild Indigo | Wild Lilac       |                |

## Sunscald on Young Trees

By Donna Aufdenberg

Wrapping the trunks of newly planted trees or young trees with thin bark is important for two reasons. First, it helps reduce moisture loss from tender bark and, second, it can help prevent winter sun scald.

Sun scald occurs on clear, sunny days in late winter when the afternoon sun shines directly on the bark on the southwest side of the tree, warming it, increasing cambial activity and reducing freezing tolerance. Then, when the sun sets, the bark temperature may drop well below freezing within a few hours, resulting in death of cells in the bark. This type of damage provides easy access to the bark by stem boring insects and fungal, decay organisms.



Photo from USDA Forest Service

Wrapping the trunk with a light-colored material, such as the kraft paper used by landscapers is an excellent practice for preventing trunk scald.

Wrap from the soil line up to the lowest branch. The trunk may also be painted white. Do not, however, wrap a trunk with a dark-colored material such as weed barrier fabric. This increases the temperature of the underlying bark and provides no significant insulation to prevent bark freezing. The wrap should be removed after winter. If the bark still looks thin after the first winter, consider re-wrapping the second fall.

# October Gardening Calendar

By Donna Aufdenberg

## Outdoor Plants and Ornatmentals

- Container grown and B&B trees and shrubs can be planted now.
- For best bloom later this winter, Christmas cactus, potted azaleas and kalanchoe may be left outdoors until night temperatures drop to about 40 degrees.
- Cannas and dahlias can be dug when frost nips their foliage. Allow plants to dry under cover in an airy, frost-free place before storage.
- Transplant any deciduous trees once they have dropped their leaves.
- Old fallen leaves can harbor disease pathogens, if a tree or shrub had foliar disease problems, pick the leaves up and dispose of them.
- Fall needle shed of pines is starting to occur so don't panic if your pine looks a bit yellow. It will come out of it.
- Put tree guards on young trees to protect against rabbits and deer.
- Leaves from heavily wooded gardens can be beneficial to the garden and should not be burned or discarded. Instead, put them through a shredder and use as a mulch or add to your compost pile.



## Vegetable Gardening

- Finish cleaning up garden areas. Compost only non-diseased foliage and plants. Remove all cages and stakes.
- Sow cover crops such as winter rye or winter wheat after crops are harvested and plants are pulled.
- Harvest winter squash and pumpkins before frost. For best storage quality, leave an inch or two of stem on each fruit.
- Now is a good time to soil test your vegetable garden.

## Fruits and Nuts

- Persimmons are starting to ripen now, especially after frost.
- Place wire guards around trunks of young fruit trees for protection against mice and rabbits.

## Turfgrass

- Don't retire the lawn mower when the grass growth slows down this fall. As long as it continues to grow, it should be mowed.
- Seeding grass seed should be finished by October 15.
- Fall is the time to control certain broadleaf weeds in the lawn including chickweed, white clover, dandelion, and wild onion.
- Keep leaves raked off lawns to prevent smothering grass.

## Fall is a Great Time to Divide Spring and Summer Blooming Perennials!

Perennials that can be divided now include Columbine, Coral Bells, Coreopsis, Day-lily, Hardy Geranium, Hosta, Pulmonaria, Peony, Phlox, and Speedwell.

When dividing... Dig around the plant and lift the entire clump out of the ground.

Use a spade or sharp knife to cut the clump into quart or gallon sized pieces.

Discard the old center and trim off damaged roots.

Keep divisions moist and shaded while you prepare the new planting site.

After replanting, water well!



# Bulbs

by Sarah Denkler

It is a good time to plant bulbs for spring and summer bloom. When planting bulbs it is best to prepare and loosen soil in an area with well drained soil, adding organic matter if the clay content is high.

Prepare an area that will receive the proper amount of sunlight for the plants. Early bloomers will not receive shade under a deciduous tree that has not yet put out leaves. Avoid planting near a southern foundation as the heat from the foundation may cause the plant to flower early.

Planting depth for spring varieties is generally 3 times the height of the bulb. Some bulbs like tulips, daffodils and hyacinths must be planted with the roots down. If you are in doubt, plant roots down, it will not hurt. If you fertilize when you plant use a complete 10-10-10 fertilizer.

The size of the bulb is directly linked to the size of the flower. Allow the bulb to recuperate spent energy before it goes dormant in the summer by leaving the green foliage after the plant flowers. Foliage should not be mowed when green but only when it dies back on its own.

Some popular bulbs to plant in fall (with planting depth) include: Allium 3-4", Crocus 4", Fritillaria 3", Hyacinth 6-8", Daffodil 6-8", Tulips 6-8", Iris 4-5", Muscari 3-4" (below left), and Scilla 3-4" (below right).

Special varieties that you may not have tried (with planting depths) include:

Galanthus 3", Oriental lilies 8",



Ranunculus 2" (below right), Helleborus 1-2", Anemone 2" (below left), and Cammasia 4".

A fantastic fall bulb chart that includes great information can be found at: [http://www.almanac.com/sites/new.almanac.com/files/garden\\_guide\\_fallplantedbulbs\\_small.pdf](http://www.almanac.com/sites/new.almanac.com/files/garden_guide_fallplantedbulbs_small.pdf)



## Repurpose, Reuse, Recycle - Pass It On

By Barb Gray

### The Newspaper has many uses:

**Remove odor:** Place it in a trunk or chest when you store clothing, or crumple it into an unused suitcase to avoid that musty smell. Scents are absorbed by newspaper.

**Wash windows:** Streak-free cleaning! PLUS no paper towels.

**Wrap it:** With the holidays coming up, now is the time to save paper to use for gift wrap and stuffing.

**Burn it:** Roll it up to make paper logs for fires.

**Weeds:** Use it in layers as a weed barrier in your landscape or shredded as a mulch.

**Shape it:** Use crumpled newspaper inside of shoes or hats to help them hold their shape.

## Insect of the Month - Squash Vine Borers

by Katie Kammler

I get quite a few questions in the office about squash vine borer. This is a tricky insect because squash plants will suddenly wilt and die for no apparent reason and it always seems to happen when the first fruits are ready to harvest. The adult borer, a moth, will deposit its eggs at the base of the plant, just at the soil line. Upon hatching from the eggs, the larva tunnel into the stem of the plant and live inside. They consume the plant tissue inside the stem as they develop and the appearance of a sawdust-like material at the base of the plant is usually your only clue after the plant withers. The plants usually wilt because the water con-

ducting tissue inside the stem has been destroyed. To prevent borer damage, insecticides must be applied at the base of the plant before the larva enters the stem. Another control method is to wrap the stem with aluminum foil, preventing entry of the larva into the stem.



## Compost Gardening - a.k.a Lasagna Gardening

by Donna Aufdenberg

The idea of building gardening soils from organic materials is growing in the gardening world. The layering of greens and browns is commonly referred to as lasagna gardening, compost gardening, or sheet mulching.

The advantages to creating soils through this method includes no tilling, ease of care, increased microbial activity, reduced demand for water and fertilizers, and less physical labor.

Fall is an excellent time to put a lasagna bed together as materials will break down slowly over winter. The basic technique involves placing alternate layers of carbon materials and nitrogen materials on top of the existing soil.

Carbon materials: sawdust, leaves, pine needles, peat moss, newspaper, cardboard, straw and wood-chips.

Nitrogen materials: composted manures, fresh weeds with no seed heads, vegetable scraps, grass

clippings, soybean meal, and blood meal.

Once a decision has been made on where to put the new bed, the process is simple and doesn't require much effort. Timbers or blocks can be used if a boarder is needed. Cut the grass as low as possible and then place a thick layer of newspapers or one sheet of cardboard down on the ground covering the grass and then wet it. Next start alternating layers of nitrogen's and carbons with each layer being about 2-4 inches deep. Once the bed is 18-24 inches deep, let it compost and breakdown over the winter.

In the spring, on inspection of the beds, you will notice a black rich soil what is easy to dig, easy to plant into, and easy to harvest from. The layers will have shrunk, so additional layers may be needed.

If you would like to learn more about lasagna gardening, I really recommend the book "Lasagna Gardening" by Patricia Lanza.



## Plant of Merit—Dawn Redwood

by Sarah Denkler

The Plant of Merit program is a cooperative effort between the Missouri Botanical Garden, Powell Gardens, University of Missouri Extension, Missouri Landscape and Nursery Association, Illinois Green Industry Association and Mizzou Botanic Garden. The purpose of the program is to select plants of outstanding quality and dependable performance for Missouri, central and southern Illinois and the Kansas City Area.

Criteria for selection include plants that are easy to grow and maintain, not invasive, resistant or tolerant to disease and insects, outstanding ornamental value and reasonably available.

Plants listed as a Plant of Merit can be found online at [www.plantsofmerit.org](http://www.plantsofmerit.org). Additions are released annually with *Metasequoia glyptostroboides* 'Raven' SHAW'S LEGACY being added to the list in 2011.

This majestic tree grows up to 100 feet tall and 50 feet wide in zones 4 to 8. It prefers full sun and medium to wet, but well-drained soil.

Fossil records indicate this tree existed 50,000,000 years ago but it was first recorded by

mankind in 1941 in Modaoqi, China. Seeds from the original sight were given to the Missouri Botanical Garden in 1947. An offspring of these originals is now listed as a Plant of Merit.

The 'Raven' cultivar is distinguished from other redwoods by its uniformly pyramid and vigorous growth, low and uniformly spaced branches, deeply furrowed bark, and resistance to foliar disease.

The cultivar name honors Dr. Peter Raven, Director of the Missouri Botanical Garden from 1971 until his retirement in September of 2010. SHAW'S LEGACY is a trade name that honors Henry Shaw (1800-1889) who founded the Missouri Botanical Garden in 1859.

The original plants were planted in 1952 at the Missouri Botanical Gardens in front of the Lehmann Building.

Details on 'Raven' SHAW'S LEGACY: <http://www.mobot.org/gardeninghelp/plantfinder/plant.asp?code=E309>



## DISEASE OF THE MONTH - Powdery Mildew

by Sarah Denkler

At this time of year you will be noticing powdery mildew on your vegetables, ornamentals and perennials. This fungus is always easy to spot as it gives the leaf a light gray or white appearance.

On woody plants it seldom does any damage. On annuals, soft perennials and vegetables this fungus will be devastating. Leaves will turn yellow, brown and die.

Commercially there are chemicals that can be used to control the spread of powdery mildew but in the home lawn it is better to remove infested plant material to prevent the spread to other plants. This

practice is a form of sanitation and recommended for gardeners who practice IPM.

Remove individual leaves that have the fungus and burn them. This should help the remaining leaves from becoming infested as well as remove stress from what remains of your plant.

On woody tissue it is unnecessary to remove leaves that are infested with the fungus as it will not kill the plant. However, remember to open plants up when pruning to help air circulation and prevent fungal infections in the future.

# October 2010

| Sun   | Mon   | Tue   | Wed | Thu   | Fri   | Sat  |
|---|---|---|-----|---|---|--|
| <p>Contact your local Extension Center if you have questions about any event on the calendar or if you have a horticultural event for the calendar.</p> |   |   |     |   | 1   | 2<br>Homegrown Farm Tour of Washington County  |
| 3<br>Fete de Automme at Old Mines at Fertile  | 4<br>Parkland MG, 6:30 pm @ Courthouse Annex (3rd floor)                        | 5<br>Poplar Bluff MG, 6:30 pm @ PB Ext. Center<br>MG Training from 6 - 9 pm, Cape Girardeau Co. Ext. Center | 6   | 7   | 8   | 9  |
| 10  | 11  | 12<br>MG Training from 6 - 9 pm, Cape Girardeau Co. Ext. Center   | 13  | 14  | 15  | 16<br>Pumpkin Patch fund raiser @ Heritage Days, Ste. Genevieve 9 am-5 pm.<br>Missouri Chestnut Roast, New Franklin, 10 am - 4 pm, |
| 17  | 18<br>Ste. Genevieve MG Meeting, 6:30 pm, at the Ste. Genevieve Co. Ext. Center | 19<br>MG Training from 6 - 9 pm, Cape Girardeau Co. Ext. Center   | 20  | 21<br>Cape Girardeau Co. MG, 7 pm, Cape Co. Ext. Center | 22<br>Women's Health conference, Sikeston, 8 am - 3:30 pm For information contact Maude Harris at | 23   |
| 24  | 25<br>Perry Co. MG meeting, 6:30 pm, Perry Co. Ext. Center                      | 26<br>MG Training from 6 - 9 pm, Cape Girardeau Co. Ext. Center   | 27  | 28  | 29  | 30   |
| 31  |   |   |     |   |   |  |

## Upcoming Events....

### NOVEMBER

- 1 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
- 2 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM
- 2 - MG Training from 6 - 9pm, Cape Girardeau Co. Ext. Center
- 15 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 18 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
- 22 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30PM

### DECEMBER

- 6 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
- 7 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM
- 20 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 23 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
- 27 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30PM

## Editor's Corner

*The Monthly 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](mailto:kammlerk@missouri.edu),  
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**We're on the WEB!!**

[http://extension.missouri.edu/bollinger/  
MasterGardener/semomg.htm](http://extension.missouri.edu/bollinger/MasterGardener/semomg.htm)

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