Spiders
By Katie Kammler, MU Extension Horticulture Specialist

When the word spiders is mentioned, most people I know run the other way or shudder in horror. It is a good thing I’m not one of those people as this job involves a lot of identifying insects, with spiders included.

As much as people fear and hate spiders, we are very lucky here in Missouri that we only have two species that are poisonous and the rest are beneficial. As a kid, I had a great time catching grasshoppers and feeding them to the big yellow garden spiders. If they were hungry, they would spin them up right away and if not, they would cut them out of the web so they didn’t destroy it.

Spiders are in the Arachnid family and most closely related to scorpions, ticks, and mites. They have two body segments, head and abdomen, and eight legs. Four, six, or eight eyes are located on the head. Spinnerets are located on the posterior tip of the abdomen and used to produce silk. The silk has many uses, including making webs, constructing egg sacs, lining nests, wrapping captured prey, or constructing balloons to travel on air currents over large distances.

Missouri has more than 300 different types of spiders. Some of the more common ones include orb weavers, crab spiders, jumping spiders, and wolf spiders. They are classified by the size and shape of their bodies, the structure of the legs and other appendages, and the size and position of their eyes. Tarantulas can be found in the southern portion of the state, usually seen crossing roads in the fall. The brown recluse and black widow are the only two spiders that are considered dangerous to human health. All others are considered nuisance pests when found around homes.

Spiders are considered beneficial because they are all predators. They play and important role in keeping insect populations in check in various ecosystems. Spiders have a pair of hollow, fanglike mouthparts and venom-producing glands that they use to subdue their prey. They pierce the exoskeleton and inject venom through their fangs. The venom typically paralyzes their prey and they also inject digestive juices that break down the internal tissues. Then they suck out the body fluids for their nutriment.

Spiders catch their prey in a variety of ways, some sit and wait on a web and others actively stalk other insects.
Most spiders are active at night and usually remain hidden during the day. They will also quickly run away when disturbed, unless they are guarding their young or an egg sac. Spiders are not aggressive and do not seek to bite people. Bites only occur when a spider is threatened or provoked in some way. When a spider bite does occur, the victim is often unaware that it happened. Serious injuries or fatalities from spider bites are extremely rare. Black widow and brown recluse spider bites can be serious but the reaction to these spiders can range from mild to severe depending on the individual that is bitten and the amount of venom injected.

So next time when you encounter a spider, consider letting it be and not killing it. They do provide benefit to our environment.

**Spiders**

**By Katie Kammler, MU Extension Horticulture Specialist**

Seasonal Recipe: Pumpkin Torte

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<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
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<tr>
<td>1 ½ cup graham cracker crumbs</td>
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<tr>
<td>¼ cup melted butter</td>
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<td>¾ cup sugar</td>
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<td>2 cup pumpkin</td>
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<td>½ cup sugar</td>
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<td>½ tsp salt</td>
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<td>1 envelope gelatin dissolved</td>
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<td>¼ cup sugar</td>
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<tr>
<td>½ pint whipping cream</td>
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<tr>
<td>1 carton of thawed frozen whipped</td>
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**Pumpkin Torte**

Mix graham crackers, 1/3 cup sugar, and butter. Press into 9 x 13” pan.
Mix eggs, ¼ cup sugar and cream cheese and pour over crust. Bake 20 minutes at 350 degrees.
Cook pumpkin, egg yolks, ½ cup sugar, milk, salt, and cinnamon until mixture thickens. Remove from heat and add gelatin/water mixture. Cool. Beat egg whites and ¼ cup sugar until they form stiff peaks. Fold into pumpkin mixture. Pour over cooled baked crust.
Top with whipped cream and refrigerate.
November Gardening Calendar  
By Donna Aufdenberg, MU Extension Horticulture Specialist

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. Young, thin barked trees such as maples and many fruit trees are especially susceptible.
- Take a walk through your garden as the fall season winds down. Take time to reflect on the successes and failures of your gardens this year. Make notes in your gardening notebook for new things to try, and things to fix, next spring.
- Mulch used in spring and summer to control weed growth is different from the mulch used in winter. Winter mulch to protect perennial plants should not be dense and heavy. Put down shredded tree branches, pine boughs, or small leaves when the ground freezes in your region. In spring, rake away the mulch material and add it to the compost pile.
- Check guy wires around newly planted trees to be sure hose sections still cover the supporting wires or ropes so they will not damage the trunks in windy weather. Remove supports that are over 6 months old.
- Inspect trees and shrubs for bagworm capsules and the silvery egg masses of tent caterpillars. Remove and destroy them to reduce next year’s pest population.

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.
- To prevent insects or diseases from over-wintering in the garden, remove and compost all plant debris.

Fruits
- Break the crust on the surface of any sawdust mulch you have around blueberries, shrubs, and perennials to improve the absorption of water from fall rains.
- Keep mulches pulled back several inches from the base of fruit trees to prevent bark injury from hungry mice and other rodents.
- 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.

What Plants Do For Us! Did You Know…

Plants create oxygen for the atmosphere.
Plants absorb carbon dioxide from the atmosphere.
Plants return nutrients to the soil through decomposition.
Plants filter and clean indoor air.
Fresh vegetables can lower high cholesterol, heart disease and hypertension.
Gardening is a more effective stress-reliever than athletic activity.
Money is saved with home-grown food.
Indoor flower blooms can prevent winter depression.
Container gardening has gained in popularity in recent years and tropical plants are well-suited for containers. Their lush growth and colorful flowers make them a welcome addition to the home landscape. Additionally, tropical plants seem to thrive in the heat and humidity of atypical Missouri summer. Many of these plants are woody species in nature that can grow quite large in a single summer and gardeners often are faced with the problem of what to do with them as the end of the growing season approaches.

The answer to this problem in certain cases is very simple. If the plants have become quite large and indoor space is limited or available light is poor, the easiest solution would be to allow the plants to freeze and start over with younger, smaller plants purchased from a local nursery or garden center the following spring. Young plants which are growing actively at the time of their purchase will most likely make more of an immediate impact in the landscape when compared with older plants that have been overwintered in less-than-ideal conditions. Since many gardeners become somewhat attached to their plants, allowing them to freeze is a difficult decision to make. Additionally, certain species of tropical patio plants can be a bit “pricey” and the prospect of replacing them each spring is unattractive.

For gardeners who have time and indoor space with reasonably adequate light and temperature conditions, it is possible to keep tropical patio plants for another summer of enjoyment. Plants fitting into this category include hibiscus, bougainvillea, mandevilla, banana, palm and citrus (orange, lemon or grapefruit). Since many tropical plants can suffer from chill injury, it is wise to move them inside for the winter when night temperatures start to consistently fall below 45 degree F.

Hibiscus are fairly content indoors and do not require a lot of space. It is wise to cut them back before bringing them indoors, but this will eliminate the flower buds that had developed on the growth removed. Smaller plants may be placed in a sunny window where they should bloom periodically throughout the winter. If a sunny location is not available, hibiscus can be placed in a cool location and allowed to drop their leaves and go dormant during the winter. The roots should not be allowed to dry out and, since the plant has no leaves, it will not require much water. A “rule-of-thumb” is to keep the root system “barely moist”.

Bougainvillea is fairly ranked in growth habit and can take up a lot of space to overwinter. If the plant was in a hanging basket or small container, it can be cut back and placed in a sunny indoor location in a manner similar to hibiscus. Because many bougainvillea patio plants tend to be large containers, a more common overwintering method is to place it in a cool location that does not freeze and allow it to go dormant for the winter. Although its leaves will drop, bougainvillea is a woody plant that will initiate new leaves and growth when placed outdoors the following spring. As with hibiscus, the root system should not be allowed to dry out but do not overwater the plant.

Mandevilla is a very vigorous vine that will need to be severely pruned before moving it indoors. It, too, can survive in a sunny location in the home and might require additional pruning during the winter if growing conditions are good. Mandevilla also can be allowed to go dormant and placed in a cool location that does not freeze during the winter. Additionally,
it can be overwintered by harvesting its thick, fleshy storage roots and protecting them from desiccation while keeping them cool. While requiring less space, this latter method usually requires more time the following spring before a blooming plant is established.

Bananas are probably the most difficult container plant to overwinter because of their size and high light requirement. Dwarf bananas are more likely to fit indoors and find a suitable home in a sunny window than are large bananas. If large bananas have produced side shoots, these shoots can be removed, potted and maintained as small plants throughout the winter. The shoots must have some roots present on the stem when cut since bananas do not root from the stem. An alternative storage method for large bananas is to cut the plant off and hold it in cool temperatures (45 to 50 degrees F). The cut stump will gradually die back to the soil and should be removed the following spring. When placed outdoors the following spring a new shoot may develop (in time) if the root system has been protected and not allowed to dry out.

Palms make useful houseplants as well as attractive patio or deck plants during the summer. They acclimatize rapidly to the lower light conditions found in the average home although some of the older leaves might yellow and drop. Watch for insects and mites that might have gained access to the plant while growing out-of-doors.

The various species of citrus all require about the same conditions for overwintering. If large, they can be pruned to accommodate an indoor setting. They require a sunny location, uniform moisture and a monthly feeding with a fertilizer that is acidifying in nature, such as those developed for azaleas. While they might flower given adequate light indoor, they seldom set fruit.

Regardless of the species, tropical patio plants moved indoors for the winter should be thoroughly inspected for pests. Mites are a very common pest of plants outdoors and are difficult to detect because of their small size. While they might not have developed into a major problem on the plant during the summer, the warm, dry conditions of the average home encourage their proliferation during the winter. Watch for leaves that are pale or look stippled and inspect with a hand lens. If present, mites can be eliminated by washing thoroughly with a mild detergent or spraying the plant with an appropriate pesticide labeled for use on mites indoors.

The end of the growing season does not have to signal the end of tropical patio plants that have brought months of enjoyment. With a bit of care they can be carried through the winter as “house guests” and put to work the following spring as outdoor patio plants.

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Garden Quote...

A weed is a plant that has mastered every survival skill except for learning how to grow in rows.

~ Doug Larson
History of Dawn Redwood
By Sarah Denkler, MU Extension Horticulture Specialist

The Dawn Redwood is considered a prehistoric tree dating as far back as 50,000,000 years according to fossil records. Although its offspring have survived many events that have eliminated other species it was not found as a live specimen until 1941 in China. Seeds from this discovery were provided to the Missouri Botanical Garden in 1947. They were later planted on the grounds where they can still be observed growing today at a height of 70 feet.

Dawn redwood is a conifer that loses its soft, feathery leaves in the fall after they turn a dark bronze color. It grows upright in a pyramid shape up to a height of 100 feet. The canopy will reach 25 feet in width so the tree does need space to grow.

It prefers full sun and well-drained organic soil and will grow in deer rich environments with little to no damage. It fits the requirements for a rain garden tolerating both wet and dry soil.

There are no serious pests of this tree and it is often considered to be a majestic specimen based on form, character and size.

Offspring from the original 1947 seeds were presented to the public from the Missouri Botanical Garden in 2011 as Metasequoia glyptostroboides ‘Raven’ Shaw’s Legacy®. Commonly called the Raven Dawn Redwood, it was a Plant of Merit in 2011. This variety and others can be purchased for home landscapes.

Pictures of Raven Dawn Redwood provided by Missouri Botanical Garden.

A Must Have! Garden Journals
Donna Aufdenberg, MU Extension Horticulture Specialist

The From Seed to Harvest and Beyond: Garden Journal and Calendar is a garden journal as well as a how-to guide and information resource. It provides a place to keep all gardening information, plans and notes together.

Keeping a garden journal is a great way to organize and keep track of the how, when, where and what of the gardening season. Writing down your thoughts, successes, failures, needed improvements and new ideas as the gardening season progresses is easier than struggling to remember them several months after the season has ended. Many gardeners believe the keys to successful gardening are to get your plans on paper first and to keep records. This journal allows this to be done.

If you are interested in purchasing a garden journal for yourself or as a gift, we are selling them as a fundraiser for $20 each plus $3 shipping and handling. Each journal comes in a binder with a zipper pouch, note pad, etc.

Contact the Bollinger County Extension Center at 573-238-2420, Butler County Extension Center at 573-686-8064 or the Ste. Genevieve Extension Center at 573-883-3548 for ordering information.
### Upcoming Events

- **December 2** - Poplar Bluff MG 1st Tuesday at 6:00pm at Holy Cross Episcopal Church
- **December 11** - Ste. Genevieve MG 2nd Thursday, at 6:30pm, Ste. Gen. CO Ext. Center
- **December 14** - Cape Girardeau County MGs Christmas Party at 2:00pm, Cape CO Ext. Center
- **December 22** - Perry County MGs 4th Monday at 6:30pm, Perry CO Ext. Center

If you have a horticultural related event for the calendar call 573-686-8064 or email it to Denklers@missouri.edu.
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 to share experiences and write 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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