Living in Missouri provides us with extraordinary opportunities to connect with nature. In that regard, the number of places that can be visited for the purpose of exploring our horticultural side are numerous. Here is an informative list of some locations close to our southeast readership followed by a short list of other fantastic opportunities throughout the state.

**Missouri Botanical Garden** - St. Louis. Founded in 1859, this is the nation's oldest botanical garden in continuous operation and a National Historic Landmark. In 2007 the herbarium was ranked 6th in the world. A tour would be worth your time.

**Big Oak Tree State Park** - East Prairie. 1,029 acres of original landscape has been preserved. Five park trees qualify as state champions and two are registered as national champions.

**Capaha Rose Garden** - Cape Girardeau. Five garden clubs maintain this Rose Display and Testing Garden. Forty-two beds exhibit different varieties to the general public in "The Rose City."

**Hawken House Herb Garden:** Webster Groves. This herb garden is maintained by the local herb society to promote the growth and use of herbs.

Jewel Box - St. Louis. Conservatory built in 1936 offers six seasonal floral displays in the 144 feet long, 55 feet wide and 50 feet tall Main Display Room.

**Shaw Nature Reserve** - Gray Summit. This arboretum contains 14 miles of trails through an oak-hickory forest, bottomland forest, glades and tall grass prairie and includes 2,500 acres of natural gardens.

**Sophia M. Sachs Butterfly House & Education Center:** Chesterfield. Conservatory of 8,000 sq. ft. in Faust Park to foster a better understanding and increase awareness of the natural butterfly habitat.

**Tower Grove Park** - St. Louis. A National Historic Landmark, with a 289 acre 19th Century Victorian walking park featuring fanciful pavilions, a palm house, lily ponds and sculptures interspersed among lawns, flowers and trees.
Other locations throughout the state include: Powell Garden, Kingville; Shelter Insurance Gardens, Columbia; Japanese Stroll Garden, Springfield; Runge Nature Center, Jefferson City; and the College of the Ozarks Arboretum and Greenhouses, Point Lookout.

If you truly enjoy getting eye to eye with native areas in Missouri try these local natural areas where flora and fauna abound:

- Johnson’s Shut-ins State Park
- Elephant Rocks State Park
- Millstream Gardens Conservation Area
- Otter Slough State Wildlife Management Area
- Lake Wappapello State Park
- Pickle Springs Natural Area
- Powder Valley Conservation Nature Center
- Cape Girardeau Conservation Nature Center
- St. Francois State Park
- Hawn State Park
- St. Joe State Park
- Sam A. Baker State Park
- Morris State Park
- Trail of Tears State Park
- Tom Sauk Mountain State Park
- Mark Twain National Wildlife Refuge (including Bell Mountain Wilderness, Irish Wilderness and Rockpile Mountain Wilderness, Mingo National Wildlife Refuge, Ozark National Scenic Riverway, Peck Ranch Wildlife Refuge, Watercress Park, Big Spring National Park).

For further information checkout the following sites: www.all-americaselections.org/Display_Garden_Locations.asp?Country=25&State=MO&Submit=go; www.ilovegardens.com/Missouri%20Gardens.htm

If you would like to continue to receive a hardcopy of the Garden Spade Newsletter, please fill out the form and enclose $10.00 for your annual subscription. The $10.00 covers printing and mailing costs associated with the newsletter.

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September Gardening Calendar  
By Donna Aufdenberg

Outdoor Plants and Ornamentals
- Take cuttings of annuals now to provide plants for overwintering.
- Herbs such as rosemary, chives and thyme can be dug and placed in pots for growing indoors this winter.
- By the end of the month, get house-plants prepared to be moved indoors.
- Get ready to divide perennials, especially spring bloomer.
- Try planting hardy ferns this fall to fill in between other shade loving plants. They transplant better in the fall.
- Lawns should be fertilized in late September or early October only after the rains have returned.
- Give your perennials and woodies a fall check-up, look for weak or diseased plants. Eliminate plants that might infect or take energy from other plants.
- Wait until deciduous trees have dropped leaves before fertilizing them.
- Fall is great for planting trees and shrubs.

Vegetable Gardening
- Tomatoes will be slowing down. Keep them adequately watered to promote tomato ripening.
- Remove old plant debris from the garden to prevent pests from overwintering in the garden. This will help to limit the populations next year.
- Sowing seeds of radish, lettuce, spinach and other greens in cold frame will prolong fall harvests.
- By the end of the month, pinch off any young tomatoes that are too small to ripen. This will allow faster ripening of full-size fruit.

Fruits and Nuts
- Walnuts should be falling soon. Hull and cure them or collect and take to your local buyer.
- Pick pears before they fully mature. Store in a dark cool area to ripen.
- Bury or discard spoiled fallen fruit to decrease disease spread for next year.

Turfgrass
- Begin fall seeding of cool season grasses. Seedbeds should be raked, dethatched or core-aerified, fertilized and seeded.
- Early fall is a good time to apply broadleaf weed killers. Be sure to follow all label directions, and choose a calm day to prevent spray drift.

Fair Exhibiting Tips for Fruits and Vegetables
- Take clean, unblemished, ripened produce.
- Avoid over-ripe produce that will spoil quickly during exhibition. Slightly under-ripe produce is best.
- Clean dirt and residues to leave a nice polished product.
- Protect produce during transport by wrapping in padding.
- Read the fair book on exhibiting rules and quantities needed per variety.
- Always take a few extra pieces of produce in case of damage or injury.
- Judges look at quality, condition, and uniformity.

For more information, see MU Guide G6230 Exhibiting and Judging Garden Vegetables.
We are finally experiencing some cooler weather. This puts us in mind of fall and winter to come. When the weather changes, it can be hard to let go of the beautiful flowers that we have worked so hard to keep watered, weeded, and fertilized all summer. Dried flowers are an option to preserve some of that summer color. They can provide distinctive indoor decoration and can last with little care. It takes no elaborate equipment nor previous experience and it is inexpensive.

Flowers or leaves for drying can be gathered any time during the growing season. They need to be picked close to their prime. They will continue to open as they dry. Use only flowers free of insect and disease damage and flowers that are dry.

Air drying is the easiest method for drying. Many flowers can be dried by simply hanging them upside down in a warm, dry place for several weeks. This method works well with baby’s breath, bachelor’s buttons, bells of Ireland, cockscomb, globe amaranth, larkspur, lavender, static, strawflower, and yarrow. Seed heads and grasses are also good for air drying.

Another flower preservation method is pressing. This is a great option for those of you who are into scrapbooking or handmade cards. Flowers are pressed between sheets of non-glossy paper such as newspapers or telephone books for several weeks. Here are just a few of the flowers that do well with this method: ageratum, bleeding heart, columbine, cosmos, daisy, delphinium, hydrangea, pansy, phlox, rose, salvia, and verbena.

Desiccants can also be used to dry flowers that need to retain a specific shape and contain a lot of moisture. There are various formulas to make homemade desiccants and also commercial brands available. Flowers that are easier to do with this method include daffodil, dahlia, daylily, gladiolus, iris, lilac, peony, rose, sunflower, snapdragon, and tulip.

After the flowers are dried, you can be creative in your arrangements. Flower stems can be wired to achieve different shapes or soaked in warm water to add curves or other lines. Experiment and have fun preserving flowers to enjoy in the dreary winter months. For more information, check out MU Guide 6540 “Drying Flowers and Foliage for Arrangements.”

Upcoming Volunteer Opportunities and Activities
by Donna Aufdenberg

- The Perryville Master Gardeners have invited Karen Funkenbusch from Missouri AgrAbility Project to present for their meeting on Monday, September 27 at 6:30 pm. She will present “Gardens for Everybody” which looks at how persons with disabilities can continue to garden and how we can avoid injuries while we are gardening. The meeting will be at the University Extension Center at 321 N. Main in Perryville (in the basement of the building). The public is invited. For more information contact Joyce at 573 788-2105.

- Cape County Master Gardeners Annual Picnic and Plant Swap will be held on September 25, 2010 from 4:00-9:00 p.m. at Shadow Rest Ministries in Cape Girardeau. Bring a covered dish or dessert and your own drinks. Don’t forget to bring your lawn chairs and plants to swap. Meat and utensils will be provided! Spouses and Children Are Welcome! RSVP to Verla Carr at 573-243-0358 by September 20th.
The month of August is a time that finds many of us harvesting and storing produce for later use. Often we are so busy that we forget some of the simple ideas that can help us with future disease control.

It is during the fall that work can be done without using chemicals to prepare our soil, gardens and landscapes to combat next spring’s diseases.

Basic integrated pest management (IPM) uses multiple techniques to prevent or suppress any pest problem. The key is that more than one technique is used. By using IPM year after year you will build up your gardens ability to resist and prevent diseases. Key IPM strategies are cultural, biological, mechanical, and chemical control practices.

Of course chemical control is most often used in the spring, before the breakout of a pathogen occurs and the disease spreads. This is only needed if you are aware of disease pressure in your area or if disease was present in the past season.

Biological control is most common when used on insects but there are beneficial fungi that help give plants an added boost in growth. Mycorrhizae are one example that can be found naturally in the soil.

Mechanical control is using machinery or a physical product to prevent disease organisms. For example, in the fall you can till your soil to help expose any pathogens hiding in the soil and to eliminate eggs from insects that spread disease. You may also try cooking the soil by covering the ground with clear plastic to allow the sun to heat the soil. This practice is best used when high levels of destructive pathogen are present as it will also kill beneficial pathogen.

Cultural control can be practiced in the spring as well as fall. These measures include rotation of crops in the same family to prevent further increase of disease pressure, mulching to add organic matter and hold moisture, and using proper amounts of water when plants are actively growing. Other cultural practices which are ideal for fall gardening begin with monitoring pH and adding the proper amount of fertilizer. Both of these are determined by a soil test. If this is done in the fall it allows time for amendments to breakdown and alter the soil by spring.

One of the most important disease prevention techniques is proper sanitation. This works best by maintaining clean tools when you work in and around plants and eliminating any debris that may harbor disease. As plants complete their lifecycle, remove them to either a compost facility or burn them if they are diseased. Eliminate weeds, especially during the fall when weeds go to seed. This will help to prevent larger weed outbreaks in the future and eliminate hosts for disease. Prune trees and shrubs of dead or damaged tissue that can harbor disease pathogens.

One other cultural practice is to scout the health of existing plants. If it is time to remove something from your landscape then do so. If you have bare patches in your lawn then the fall is the best time to seed and eliminate those bare spots. Healthy lush lawns and plants are better able to withstand disease pressure.

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**Repurpose, Reuse, Recycle - Pass It On**

By Barb Gray

Take an old mailbox (rural boxes or the small house boxes) and mount it on a post or porch rail to store garden tools and gloves. Another possibility is to use a medium tin can by cutting a slot in the top edge to attach it to a tree or post. Punch holes in the bottom for drainage and keep your garden tools handy.
Insect of the Month: Fall Webworm
by Katie Kammler

It is the time of year that fall webworm is apparent on shade trees and shrubs. They are not picky on their feeding habits, with a range of around 90 species that they like. Their favorites include hickory, walnut, birch, cherry, and crabapple. Fall webworm gets confused with eastern tent caterpillar, but the webworm constructs its nest over the end of the branch rather than tree crotches. The large webs that they form contain caterpillars, partially eaten brown leaves, and fecal droppings.

The larva stage skeletonize and consume the leaves on the inside of the tent-like web that they enlarge when they require additional food sources. They rarely cause significant damage but are unsightly. They have a variety of natural enemies including birds, other insects, and parasitoids. They can also be pruned off and destroyed by your favorite torture method.....I prefer a hot fire for this pest. There are also chemical control methods available but usually they are not necessary.

Moving Houseplants Indoors
By Katie Kammler

We are approaching that time again when we will need to consider bringing the houseplants indoors.

- Examine plants closely for pests before bringing them inside and keep them separate from other house-plants for several weeks.
- For mild or suspect infestations, try washing plants with water or a mild soap solution. If you notice a major pest problem, you might consider discarding the plant and replacing it with a new one.
- Plants that outgrew their pots over the summer will need repotting.
- Pruning may be in order. Broken or otherwise damaged plant parts should also be removed.
- If plants are changed from a high light intensity to a much lower light source, they might be prone to losing a lot of leaves. A good example is ficus trees.
- Avoid setting plants on top of heat sources such as televisions and radiator heaters or around air vents that blow hot air.
- Remember that your watering habits are going to change. Watering may only be needed once a week.
- Avoid excess salt buildup by fertilizing only once a month in the winter time.

With luck, your houseplants won’t suffer too much stress and will adjust nicely until it is time to move them outdoors again.
The Garden Spade

September 2010

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Upcoming Events....

**OCTOBER**

4 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
5 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM
5 - MG Training Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center
12 - MG Training Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center
16 - Missouri Chestnut Roast, New Franklin, MO 10AM - 4PM, www.centerforagroforestry.org/events/chestnut/index.asp
18 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
19 - MG Training Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center
21 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
25 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30PM
26 - MG Training Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center

**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 Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center
9 - MG Training Aug 31 - Nov. 2 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
16 - MG Training Aug 31 - Nov. 2 from 6 - 9pm, Cape Girardeau Co. Ext. Center
18 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday

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.
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, denklers@missouri.edu, or aufdenbergd@missouri.edu

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