



# The Garden Spade

June 2019

"Reliable, Responsive and Relevant Information for the Missouri Gardener"

## Beware of Invasives When Purchasing Plants

Kelly McGowan, MU Extension Field Specialist in Horticulture

Gardening centers and stores are bursting at the seams with beautiful new plants for spring. According to new survey results published by the National

Gardening Association, garden-related spending topped \$52 billion in the U.S. in 2018, which is an increase from previous years. With so much money spent on plants and a plethora of options to choose from, be aware of invasive species when purchasing new landscaping plants.

Wintercreeper (*Euonymus fortunei*), was once recommended as a vining groundcover for landscaped areas. It can tolerate a variety of habitats including sun and shade. Its aggressive growth

habit allows wintercreeper to spread and cover not only the ground, but trees and anything else in its path. The seeds of this plant are eaten by birds and passed through their digestive tract to new areas. The seeds sprout, and a new population of wintercreeper begins. There has been a dramatic rise in the infestation of woodland areas where they blanket the forest floor choking out native plants. It can be very difficult to control, even when full strength synthetic herbicides are used.

Although wintercreeper is considered an invasive plant in Missouri, it is still readily found for sale at garden centers. For shady areas, consider alternatives such as Robin's plantain (*Erigeron pulchellus*) and wild ginger (*Asarum canadense*). For sunny locations, try rose verbena



Wintercreeper courtesy of  
Missouri Botanical Garden

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Receive a monthly email with a direct link to "The Garden Spade". Send email to [kammllerk@missouri.edu](mailto:kammllerk@missouri.edu)

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# Beware of Invasives When Purchasing Plants

Kelly McGowan, MU Extension Field Specialist in Horticulture

Continued from page 1 (Glandularia canadensis), prairie dropseed (*Sporobolus heterolepis*) or aromatic aster (*Sympphyotrichum oblongifolium*).

Bush Honeysuckle (*Lonicera maackii*) is one of the most pervasive invaders in Missouri woodlands. Honeysuckle blossoms were once a much-desired addition to home landscapes and bush honeysuckle was planted extensively as a result. Like wintercreeper, birds eat and transport the seeds to other areas, primarily forested areas and woodland edges where they quickly grow into a medium to large woody shrub that out-competes native species. Once they are established in unwanted areas, they are very difficult to eradicate.

Fortunately, there are some incredibly beautiful native honeysuckle species that can be planted as an alternative. Native honeysuckle needs trellising and a couple of growing seasons to become established, but the blooms are highly attractive to hummingbirds and butterflies.

Bradford Pear (*Pyrus calleryana* 'Bradford') has also been planted extensively in the past 30 years because of its rapid growth habit, uniform shape, spring blooms and fall color. It was originally thought to be the perfect landscape tree and its small, pear-like fruit thought to be sterile. The fruit, which is eaten by birds and carried to new areas, turned out not to be sterile and new populations of Bradford pear quickly invaded natural areas. These new populations, which started from wild seed, often revert back to their wild form, producing trees that contain thorns. Unfortunately, Bradford pear can still be found in garden centers. Avoid planting this invasive species and consider some of these lovely alternatives for the home landscape: Redbud (*Cercis canadensis*), Red Buckeye (*Aesculus pavia*), Serviceberry (*Amelanchier arborea*).

For information on identification, control options or alternative plantings, contact your local MU Extension office.



Bush Honeysuckle courtesy of Katie Kammler



Bradford Pears courtesy of Missouri Botanical Garden

# June Gardening Calendar

Donna Aufdenberg, MU Extension Field Specialist in Horticulture

## Outdoor Flowering Plants and Ornamentals

- Watch for bagworms feeding on many garden plants, especially juniper, arborvitae and other evergreens. Spray before the bags get too big!
- Keep applying organic mulches to planting areas to conserve moisture, discourage weeds, and enrich the soil as they decay.
- Apply a balanced rose fertilizer to roses after the first show of blooms is past.
- Trees and Shrubs may still be fertilized before July.
- When irrigating, use drip irrigation and soak roots deeply for at least one hour. Irrigate once or twice per week instead of every day. Mulching will help to hold the moisture in the soil.
- Remove foliage from spring bulbs after it turns yellow and begins to dry. Set out bedding plants to cover the bare spots using care not to damage bulbs.

## Vegetable Gardening

- Early detection is essential for good control of vegetable pests. Learn to identify and distinguish between pests and beneficial predators.
- As soon as cucumber and squash vines start to run, begin spray treatments to control cucumber beetles and squash vine borers.
- To keep your cauliflower heads pure white, layer several of the long, outside leaves onto the flat, open head. Secure the leaves together with clothespin or two toothpicks in the form of an X until the head is ready for harvesting.
- Corn needs water at two crucial times: when the tassels at the top are beginning to show, and when the silk is beginning to show on the ear. If weather is dry at these times, water!
- Consider planting successive crops of green beans, cucumbers, and zucchini.
- If disease appears on a leaf, remove that leaf and burn it. This form of sanitation can help to prevent the spread of disease onto desired plants.

## Fruits and Nuts

- Thinning overloaded fruit trees will result in larger and healthier fruit at harvest time. Thinned fruit should be a hands-width apart.
- Want a few types of homegrown fruit, but have no or little garden area to work with? Consider growing dwarf fruit trees, strawberries, and blueberries in containers.
- Time to renovate strawberry beds after they quit producing fruit.

## Turfgrass

- Water turf as needed to prevent drought stress.
- Gradually increase the mowing height of zoysia lawns throughout the summer. By September, the mowing height should be 2 to 2.5 inches.

## Plants That Spread Like Wildfire

- Anemone
- Bamboo
- Bellflower
- Chinese Lanterns (traveling roots)
- Crape Myrtle
- Common Milkweed
- Coneflower
- Coreopsis
- Lemon Balm
- Lily of the Valley
- Mint
- Monarda or Beebalm
- Morning Glory (even the pretty varieties)
- Oregano
- Ornamental Pear Trees
- Rose of Sharon
- Rudbeckia
- Spreading Liriope (*Liriope spicata*)
- Sweet Autumn Clematis
- Wisteria (suckers if pruned severely)

# Elderberry Propagation and Establishment

Patrick Byers, MU Extension Field Specialist in Horticulture

Everyone is talking about elderberries! And rightfully so – the plant is beautiful, the flowers and fruit support pollinators and beneficial insects, birds and other animals find shelter in the shrubs, and gardeners benefit from the healthful qualities of the fruit and flowers. Propagating elderberry is easy, and establishing a plant (or perhaps 100 plants!) in the garden is straightforward.

Gardeners can use many methods to propagate elderberry. Perhaps the easiest is by rooting dormant hardwood cuttings. Collect vigorous, 2-4 node cuttings from the previous season's growth before budbreak, which typically occurs by early February.

Root the cuttings immediately in a warm room or greenhouse, or store under refrigeration for 4-6 weeks for later rooting outside. Dip the basal ends of the cuttings into an IBA rooting powder, and place the basal bud(s) below the surface of a well-drained soil or sterilized commercial potting medium. Start the cuttings in pots, or root the cuttings directly in the garden. The cuttings will develop sprouts and roots. Plant potted plants into the garden when the new shoots are 6-10 inches long. Other cutting propagation methods, using sprouted cuttings or softwood cuttings, require high humidity around the cuttings until rooting takes place. Root cuttings and seeds offer additional opportunities for elderberry propagation. Check out the publication *Growing and Marketing Elderberries in Missouri* (<http://www.centerforagroforestry.org/pubs/2014GrowingElderberryGuide.pdf>) for more details on elderberry propagation.

Elderberries perform best when planted in full sun, in a well-drained soil that has at least 3-5% organic matter. A soil test of the prospective site will guide any modifications needed before planting. Address any issues with soil drainage by planting elderberries in raised beds or on raised berms. Space elderberry plants 4 feet apart, in rows that are 10-12 feet apart. As noted above, cuttings are commonly rooted in

pots, or directly in the garden. If rooting directly in the garden, prepare the planting site with a tillage before sticking the cuttings into the soil in March or April. Plant potted elderberry plants once the risk of frost risk is past. Elderberries will respond to irrigation, weed control, and a light fertilization in mid-summer during the first year. Manage Japanese beetles if necessary. Elderberries will produce a fruit crop in the second year and are in full production in the third year. An elderberry plant will remain fruitful for at least 8-10 years.



# What is a Neonicotinoid?

Donna Aufdenberg, MU Extension Field Specialist in Horticulture

Neonicotinoids are systemic insecticides that are taken up through the plant either through its leaves or roots and moves through the plant just like water and nutrients do. Neonicotinoids provide very effective control of piercing and sucking insects. It attacks the nervous system of the insects, which results in paralysis and death. In addition to being effective against sap-feeding pests, neonicotinoids provide good control against other insects like white grubs in lawns, fleas, flies, and cockroaches.

Active ingredients of neonicotinoids: acetamiprid, clothianidin, cyantraniliprole, dinotefuran, *imidacloprid*, nitenpyram, sulfoxaflor, thiacloprid, thiamethoxam.

One thing that has made them popular is being able to use the chemical as a soil application where plants absorb it into the roots, which reduces the risk of drift onto non-target plants.

Some research data is leading researchers to believe that neonicotinoids are partially to blame for the decline in bees and pollinators however, the true impact to the pollinator has been difficult to measure. Regardless of this fact, as gardeners, we need to be cautious of all pesticides and chemicals. Always use them as a last resort.

If you choose to use a neonicotinoid, a few simple steps should be taken: follow the label directions carefully, restrict neonicotine applications to the soil, or during times when bees are not foraging, and treat only those individual plants, which need treatment for a known pest infestation.



## Native Plant of the Month: Solomon's Seal

*Polygonatum biflorum*

**Herbaceous perennial**

**Height:** 3 to 6 feet

**Flower:** Greenish white, small tubular flowers, hang like bells from leaf axils

**Bloom time:** May to June

**Comments:** Found in rich or rocky woods, streambanks, and railroads statewide. The name comes from the seal-like scars on the rhizomes from the stalks of previous years.

**Information sources:** Missouri Wildflowers by Edgar

Pictures courtesy of [http://www.illinoiswildflowers.info/woodland/plants/solomon\\_seal.htm](http://www.illinoiswildflowers.info/woodland/plants/solomon_seal.htm)

# Mixed Container Magic

Katie Kammler, MU Extension Field Specialist in Horticulture

Container gardening has many advantages and options. It allows for gardening in any location, even an apartment. You can start sooner in the spring because you are not waiting for the soil to warm up or dry out. It works well with disabilities or health issues. My granny moved to container gardening when she could no longer put out a garden and enjoyed her washtub veggies well up into her nineties. Containers can be low cost and low input. They can overcome a bad planting site and bad soil. You are providing everything that the plant needs so you have more control over what happens. Containers are mobile so if it is not working where you put it, it can be moved to a new location. The mobility also allows for protection from weather events. You can also refresh or change the look of an area by moving containers. I am mainly talking about outdoor containers in this article but remember many can be overwintered indoors and houseplants are also container gardens.

Start with a plan—I am not very good at this part....I buy plants I like and then see what will work together. My favorite part of horticulture is watching plants grow so I like to buy plants when they are small and make my own containers and enjoy the process throughout the summer. Having a plan also means having a place to put them and take note if the location is sun, shade, part sun. Remember that the sun exposure can change throughout the day and plants can be moved if a shade plant is getting more sun than originally thought. Choosing containers is almost as fun as picking plants. If it holds soil, it is a container but the key is that whatever you choose, make sure it has drainage holes or add drainage holes. Then the container needs to be filled with a potting media. Next is the best part, picking plants or seeds. After planting, maintenance is important. Containers need water and nutrients provided.

Now to the fun part: what can you plant??? Annuals, perennials, grasses, vegetables, and herbs all work well in containers. The options and combinations are endless! Container magic happens when you select a variety of colors, textures, and leaf shapes. Some basic plant fundamentals include flags, borders, fillers, trailers/weavers, contrast and accent. Flags add height and typically grow in an upright, vertical habit. Boarders are low growing and fillers fill in the gaps between larger blooms and plants. Trailers and weavers trail past the edges of the container and hang down or in between other plants. Contrast and accent plants lend color, texture, and height to plantings.

A mixed container rule for success is to use similar plants in light, moisture, and fertilizer needs. Follow the KISS principle (keep it simple Simon). Use only three to four varieties per container, up to nine

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Mixed Container Plantings

# Upcoming Events

The following Master Gardener meetings are held each month. All are welcome to attend. Please contact your local extension office to confirm location if you did not attend the previous meeting.

Parkland MGs - 1st Monday at 6:30pm, Farmington Library

Poplar Bluff MGs - 1st Tuesday at 6:00pm, Call 573-686-8064 for location.

Ste. Genevieve MGs - 2nd Thursday, at 6:30pm, Ste. Genevieve County Extension Center

Cape Girardeau MGs - 3rd Thursday at 7:00pm, Cape County Extension Center in Fall and Winter and Shawnee Park Center in Spring and Summer. Call 573-238-2420 for questions

Perry MGs - 4th Monday at 6:30pm, Perry County Extension Center

## June 2019

**4-5 2019 Missouri Master Gardener Conference** in Columbia, MO. For more information and to register, see <https://extension2.missouri.edu/events/2019-missouri-master-gardener-state-conference>

**8 Ginseng and Medicinal Herb Forest Tour and Workshop**, 9:00 to 11:30 am; Ozark Mountain Ginseng, 460 Co. Rd. 252, Thayer, MO 65791; Event is free and open to the public but advance registration is required. Contact Jamie at 417-778-7490

**17 Hightunnel Workshop** from 1 to 4 pm at the 4-H building at the Ripley County Fairgrounds in Doniphan followed by a high tunnel tour. Register by calling Jamie at 417-778-7490.

## July 2019

**11-14 Ste. Genevieve County Fair**, Ste. Genevieve, MO

**12 Growing Blackberries Production and Sales in Missouri**, 1 to 5 pm in Cuba, MO. To register: \$10 registration per attendee. Contact the Crawford County Extension office at 573-775-2135; <http://extension.missouri.edu/calendar/DisplaySingleEvent.aspx?E=347036&S=1>

**29-Aug 3 St. Francois County Fair**, Farmington, MO

*Click on blue underlined link to be taken to a corresponding website...*

## How to Become a Master Gardener

Donna Aufdenberg, MU Extension Field Specialist in Horticulture

The mission of the Missouri Master Gardener Extension Program is “helping others learn to grow.” The

Master Gardener

program provides

in-depth horticultural training to individuals throughout Missouri who then volunteer their time applying what they have learned to help others in their communities to learn about gardening and environmental education.



The Master Gardener program promotes and raises public awareness of the University of Missouri Extension as a source of unbiased, research-based gardening information. Through activities such as MU Extension hotlines or answer services, workshops, speaker's bureaus, garden show booths, and demonstration projects, Master Gardeners provide gardening information to thousands of Missourians each year.

To become trained as a Master Gardener, an individual must attend a 30-hour classroom Core Course training. Then the Master Gardener trainee is required to give 30 hours of volunteer service back to the community in approved MU Extension activities.

If you are interested in becoming a Master Gardener, contact your local University of Missouri Extension Center to locate a chapter near you and to find out information on upcoming trainings. If face-to-face training is not available in your area, there is also an option to take online training.

# Mixed Container Magic

Katie Kammler, MU Extension Field Specialist in Horticulture

Continued from page 6 varieties for elaborate planters. A rule of thumb is three flowers to one foliage. [www.provenwinners.com](http://www.provenwinners.com) has lots of great container combinations and ideas.

Annuals are used heavily in containers because they are relatively inexpensive and easy to grow. They are heavy water and fertilizer users and can be higher

maintenance with deadheading and pruning. Perennials in container are usually treated as annuals but can be transplanted into the ground or move to a protected location for overwintering. Vegetables and herbs also work well in containers. Larger pots for tomatoes help keep the

watering down to once a day.

Watering containers is essential. They dry out faster than a traditional garden and may need to be watered once a day or more depending on the size of the container, the plant size, and

the weather conditions. Avoid overwatering and getting water on the leaves. Fertility is important because it can leach out of the pots. Slow release fertilizers or water soluble fertilizers work well.

Annuals might need deadheading or pruning to refresh the container. Moving pots around can change the look of the area. Check for insect and disease problems and manage accordingly. Remember the right solution for the right problem. Other tips include not crowding, give plants room to grow and fill in the container. Lastly, have fun with different combinations and do not be afraid to try new containers and new plants!



## The Garden Spade

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*Each month there is a title picture on the front cover of the newsletter. This month: Purple Milkweed*

# Ginseng and Medicinal Herb Forest Tour & Workshop



Saturday, June 8th  
9:00 – 11:30am

Ozark Mountain Ginseng  
460 County Rd. 252, Thayer, MO 65791

Event is free and open to the public, but advance registration is required.

\*Registration is required to ensure your spot at the event, as space is limited.

For more information and to register, contact Jamie Gundel at Oregon County Extension at (417)-778-7490 or email: [gundelj@Missouri.edu](mailto:gundelj@Missouri.edu)

## Topics Include

### *Forest farming fundamentals*

Approaches described: wild harvested, wild simulated, and woods cultivated

### *Growing ginseng and other medicinal herbs*

Getting started, site conditions, harvest rotations, maintenance requirements

### *Harvesting and processing*

Regulations and buyer specifications, equipment needed for whole root sales

### *Value added opportunities*

Considerations for materials, costs, and markets



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