



THE GARDEN SPADE



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

Preparing Your Garden for Drought

by Sarah Denkler

Because of the severe drought of 2012 and the prior short droughts in previous years, many long lived plants are showing signs of stress.

What is happening: with a lack of water healthy plants are unable to feed the bulk of their mass. In order to save what they can, stomata will close prohibiting respiration and photosynthesis, the tops of trees will begin to brown as water is kept lower



in the body of the tree, roots will stop growing out and concentrate resources nearest to the

plant, or in a specific area that might have water, reducing the total root mass. Plants that are already stressed due to damage or disease will show symptoms severely. These plants have been fighting to recover for a longer period of time which means they will not survive as long or be able to recover as well after dry weather.

Symptoms: Leaf scorch (above), interveinal necrosis, defoliation in mid-season, dead leaves on trees and small leaves. Extended drought will cause symptoms such as suckering, cankers, cambial death or heavy seeding in the

next growing season.

Time Lag: Many saw symptoms appear during the growing season last year in part due to the severity of the drought and in part due to lack of water in previous years. It is possible that symptoms will appear this year that were not present in 2012. This is because the energy required to keep the plant alive may have been depleted during the season leaving little in the root zone to keep the plant alive through the winter. This is often the case with root damage which goes undetected because it is unseen.

Preparing for future: The season following a drought is a time to be alert for changes in landscape plants. Expect to see a problem and scout for it weekly. Drip irrigation can be added to provide the best possible chance for water uptake by plants. This will go a long way in aiding recovery to roots. If new plants are put in the landscape, use only drought tolerant plants and continue to monitor those that are not. Do not overcrowd plantings. Mulch should be replenished each year but it is often skipped if weeds are under control. Add another two to three inches of mulch to help maintain moisture in soil. Do not allow the mulch to touch woody tissue. Space mass plantings further apart to

March 2013

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maximize the use of limited water supplies.

Watering: Any time new plants are placed in the landscape water them thoroughly before planting and again after planting. Water two to three times per week with 1-2 gallons of water for 10 weeks unless it rains. Reduce this rate to one time per week in the root area with one gallon of water. Water slowly. A 1/16 inch hole can be drilled in a bucket or in gallon jugs. These can be filled and placed around the newly planted species each time watering is required for a slow water that will penetrate the soil and provide water to the roots. Drought tolerant plants are not drought tolerant the first year. They must establish an effective root system in the first year.

If 2013 proves to be dry then come up with a priority for watering. This may be to water

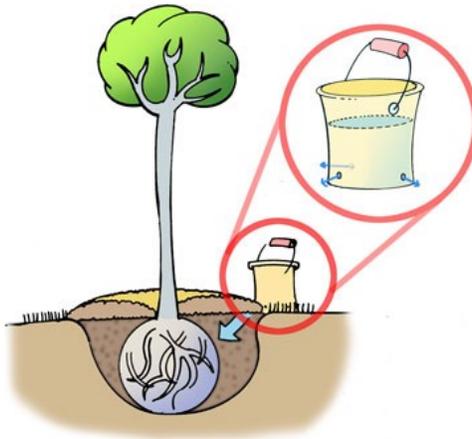
vegetables first, newly planted trees and shrubs second and follow with flowers. Lawns may be a priority or may be last on the list as they are easily reseeded. Some will feel that the older trees are the most valuable part of the landscape and that will be the number one priority. The priority will be different for everyone but will be the plant that gets the most care when water is scarce.

For more information, contact your local Extension Office. You can also check out these MU Guides:

G6879 Irrigating Trees and Shrubs During Summer Drought - <http://extension.missouri.edu/p/G6879>

G6720 Home Lawn Watering Guide - <http://extension.missouri.edu/p/G6720>

G6881 Leaf Scorch of Ornamental Trees and Shrubs - <http://extension.missouri.edu/p/G6881>



Garden Myths

by Sarah Denkler

A garden myth is an idea that has persisted so long the origin is unknown and it is believed to be 100% true. By looking at reliable, research based sources we can find out if these myths are 100% true or are based on a small percentage of accuracy.

Covering a wound will help it to heal faster: Using a wound cover after pruning has been shown not only to be unnecessary, but may actually inhibit callus growth over the cut. Available for purchase are waxes, tapes or tars. These seal the area preventing the wound from healing properly. Over time the sealer may crack or drop off but the wound will remain. Water may make its way behind the dressing during rain or from humidity, becoming

trapped. At this point the wood may develop disease and rot may begin to set in.

The best way to treat a fresh cut on woody plants is no treatment at all. In this way the tree will heal sooner and heal properly.

A wound that is healing properly.



March Gardening Calendar

By Donna Aufdenberg

Ornamentals

- To control Iris borer, clean up and destroy old foliage before new growth.
- Loosen winter mulches from perennials cautiously. Recover plants at night if frost returns. Clean beds by removing weeds and dead foliage at this time.
- Trees, shrubs and perennials may be planted as soon as they become available at local nurseries.
- Summer and fall blooming perennials should be divided now.
- Ornamental grasses should be cut to the ground just as the new growth begins.



Vegetables

- Plan your vegetable garden on paper to utilize the space most efficiently. Remember to rotate vegetables to reduce insect and disease problems.
- Delay planting if the garden soil is too wet. When a ball of soil crumbles easily after being squeezed together in your hand, it is dry enough to be safely worked.
- Start seeds of tomatoes, peppers and eggplants indoors.
- Plant peas, lettuce, radishes, kohlrabi, mustard greens, turnips, Irish potatoes, spinach and onions outdoors.
- By the third week, plant beets, carrots, parsley and parsnip seed outdoors.
- Spinach does not grow well in soggy soil during continually wet weather. If your soil is somewhat heavy, plant on low ridges to provide extra drainage.

Fruits

- Gradually remove mulch from strawberries as the weather begins to warm.
- After pruning fruit trees, burn or destroy all pruned material to minimize insect or disease occurrence.
- At the end of March, spray dormant oil. Choose a dry day when freezing temperatures are not expected.
- Mulch brambles for weed control.

Houseplants

- As day length increases, plants begin growth. Repot bound plants into pots 2 inches larger in diameter than current pot. Leggy plants may be pruned now.
- Cuttings may be taken from houseplants so that old plants can be rejuvenated and new plants may be started.

Lawns

- Take care to keep off soft and soggy lawns. Seed new lawns and do repairs after the land has drained.
- Apply a pre-emergent herbicide before lawn weeds get started. These chemicals work by preventing the seed from germinating.
- Rake any leaves, twigs and trash off lawns to keep from smothering grass.

Top MU Extension Gardening Guides to Request!

As spring draws near, you might need some gardening information. Consider requesting your copy today!

G6201 Vegetable Planting Calendar

G6010 Fruit Spray Schedule for Homeowners

G6570 Starting Plants Indoors from Seeds

G6650 Flowering Perennials: Characteristics and Culture

G6202 Disease Prevention in the Home Garden

G6226 Vegetable Harvest and Storage

G6470 Growing Herbs at Home

G6985 Raised Bed Gardening

G6600 Roses: Selecting and Planting

G6601 Roses: Care After Planting



Attracting Hummingbirds Beyond the Feeder

by Mary Crowell, Missouri Farm Bill Wildlife Biologist

Last summer was the first year I have ever put out a hummingbird feeder. I enjoyed watching the tiny birds race around the front porch and feed. As many of you know who have feeders, the standard recipe for making nectar is 1 cup white granulated sugar dissolved into 4 cups of boiling water.

There's no need to add red food coloring because most feeders are attractive enough. Remember to clean your feeders at least once a week to prevent mold from growing. When the weather is hot, the nectar will spoil faster and more cleaning will be required. Never use artificial sweeteners like

Splenda, they do not provide the calories the hummers need to stay healthy. It's also a good idea to avoid using honey as a sweetener because it quickly ferments and cultures bacteria that is deadly to the birds.

During 2012, I eventually bought a second hummingbird feeder to reduce fights and because of the persistent drought. All that dry weather was hard on everyone, including flowering plants that provide natural nectar. That got me thinking about what else I could do for the ruby-throated hummingbird, other than keep the feeder free of mold and supply sugar water. Many of Missouri's native plants are more drought tolerant than horticultural varieties of flowers. Not only do diverse native plantings provide nectar for a longer period, they attract bugs. While hummingbirds love nectar and require it to obtain calories, they also feed on bugs! Insects and tiny spiders are their source for protein, fats, and salts. Hummingbirds are able to grab gnats right out of the air or collect bugs from the inside of flowers or on tree bark. If you are interested in providing hummingbirds with all the food they need, consider adding native

Missouri wildflowers to your garden.

In Missouri, a hummingbird's favorite native flower is Trumpet Creeper. You may have seen the vine growing along a telephone poll or a fence post.

The bright orangey-pink flowers are tube shaped and bloom from May to August. Trumpet Creeper

can grow in a variety of places, but be aware that they can be aggressive enough to outcompete neighboring plants. When planting, make certain you provide the vine with a sturdy support system. The ruby-throated hummingbird and trumpet creeper are so well suited to each other, they have almost



Picture From Mo Department of Conservation

identical home ranges across the United States.

Another great flower to add to your garden that is hummingbird friendly is Wild Bergamot or Beebalm. Both of these are from the mint family, Lamiacea, and have the characteristic square stem. The flowers are normally a rose-purple color and grow to a height of 2-3 feet. Depending on the species you have, they may start blooming in April or last until August. Both species naturally occur in drier areas near glades or woodlands, making them a good choice when rainfall is scarce. The fragrant and showy blooms also attract butterflies, moths, and bees.

The bright, red blooms of Royal Catchfly is another Missouri native that will attract hummingbirds to your garden. Flowers bloom from May to October and the plants are naturally occurring on drier, sunny sites. The flower Fire Pink is a close relative to Royal Catchfly, but is more shade tolerant. Just like Trumpet Creeper, Bergamot, and Beebalm, these flowers have a long tubular shape, perfectly suited for a hummingbird or a large butterfly. The red color of both flowers is hard for bees to

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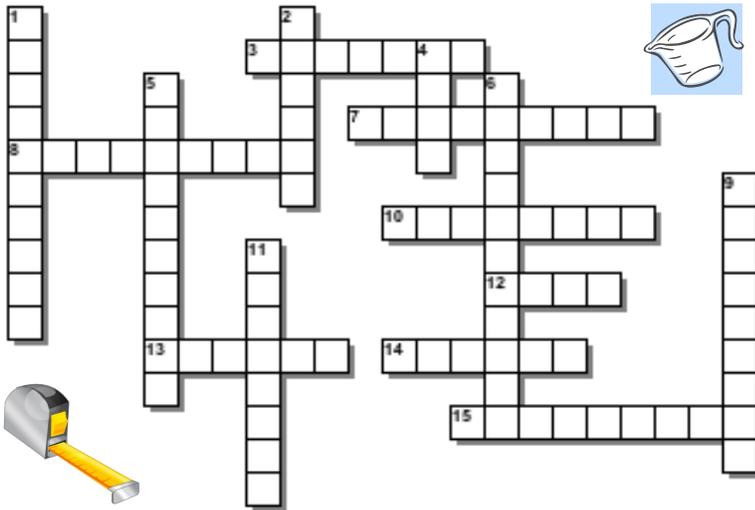
detect, so hummers most often pollinate these plants.

Some other native plants you may be interested in that will attract hummingbirds include: Cardinal flower, Touch-me-Not, Columbine, and the Red Buckeye tree. Missouri's three native honeysuckles will also do the trick: Red honeysuckle, Yellow Honeysuckle, and Grape Honeysuckle. Please

never plant exotic Japanese Honeysuckle or Bush honeysuckle because they are very aggressive and can take over very quickly. As you plan your 2013 flower garden, keep in mind hummingbirds and the native plants that seem tailored just for them. They can feast on all your hard work from April to October while you enjoy their company in the garden!

Crossword: Garden Math!

by Donna Aufdenberg



Across:

- 3 - Telling time in the garden with shadows and math.
- 7 - Size of the typical pump style garden sprayer.
- 8 - To determine by mathematical processes.
- 10 - The straight line distance across a circle at its widest point. It always passes through the center.
- 12 - A total area that is equivalent to 43,560 square feet.
- 13 - The straight line distance from the center of a circle to the edge of the circle.

14 - Depth x Area. Expressed in cubic feet or cubic yards. You need to know this to buy soil amendments, mulch, compost, soil, gravel, and many other materials.

15 - Linear distance along the boundary of a shape or object. This measurement is needed for buying fencing and edging.

Down:

1 - Illumination equivalent to light produced by a source of one candle at a distance of one foot.

2 - A measure of a basket of produce. Approximately 1.25 cubic feet.

4 - Two-dimensional space covered by a shape or object. In most cases, length x width and expressed in square feet or square yards.

5 - Equivalent to 9 square feet.

6 - Inch by inch, foot by foot - this tool helps to judge length and distance.

9 - This measure of material will cover 100 square feet to a depth of 3 inches or 324 square feet to a depth of 1 inch.



Weed Control Basics

by Katie Kammler, Horticulture Specialist

What is a weed??? The easiest definition for a weed is “any plant that is growing out of place.” Corn in a soybean field is considered a weed because while corn is normally a desired crop, it will compete and interfere with harvest in a soybean crop. However there are plants that are generally considered weeds because they always appear in our gardens, landscapes, and lawns. They are either undesirable from an aesthetic standpoint, compete with desired plants, reduce yields, harbor insects and disease, interfere with harvest or reduce the quality of harvest.

Why are weeds successful? They are very good at what they do. Weeds have large, efficient root systems, produce many small seeds (pigweed) and have good dispersal techniques.

They float in air or water, stick to animals (cocklebur), or entice birds to eat them. They can also reproduce asexually through parts of the plants re-sprouting in perennial weeds (Bermuda grass). They can live pretty much anywhere; they don't care about poor soils or lack of water. They grow fast compared to your desired plants and the seed can stay dormant in the soil for many years. One advantage to weeds is that they can help prevent soil erosion by growing quickly on open ground. Some weeds are also edible, have medicinal qualities, and provide food or shelter for many animals.

Weeds can be divided into several categories: grass, broadleaf, annual, biennial, and perennial. Grassy weeds are the monocots, plants with parallel veins in the grass family (crabgrass, Bermuda grass, fescue). Broadleaf weeds are dicots such as dandelion, plantain, lambsquarter, and pigweed. Annual weeds do not over winter but must reproduce from seed every year. They are divided into two categories. Summer annuals

which germinate in the spring, produce seed, and die in the fall (crabgrass, foxtail, pigweed). Winter annuals germinate in the fall, make seed in the early spring and die before summer (henbit, chickweed). Biennial weeds have a two year life cycle, the first year they form a rosette close to the ground and the second year is when they bloom and produce seed (thistle). Perennial weeds come back year after year after year and are the hardest to control (dandelion, Bermuda grass).



Some weed management strategies include avoidance, tilling, hand pulling, hoeing, mowing, weed-eating, mulching, spraying herbicides, and digging. Alternative methods might be flaming with fire, smothering, solarization, boiling water, salt or vinegar. **Knowing what weed you**

have and where it is located can go a long way in determining your weeding strategy.

A great source for weed identification is the MU Weed ID Guide Website - <http://weedid.missouri.edu/> or you can contact your local Extension office for help on identification.

Mulching is one of the best weed management options because it provides more benefits than just reducing weed pressure. It also helps reduce disease from soil particles splashing on the plants, reduces erosion, warms/cool the soil, and helps maintain even soil moisture. Mulches can be organic, meaning once living, like leaves, grass clippings, straw, wood chips, and sawdust or inorganic like black plastic or landscape fabric. Organic mulches can be incorporated in the soil at the end of the season to increase organic matter in the soil and improve soil structure.

If you have any questions about weed identification or control, contact your local extension office.

March 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 A Garden Symposium, Mineral Area College, Park Hills, MO
3	4 Parkland MG, 6:30pm @ Botkin Lumber Co. in Farmington Industrial Park	5 Poplar Bluff MG, 6:30pm @ "New Leaf Florist" in Poplar Bluff	6	7 Ste. Genevieve MG Meeting, 6:30pm, at the Ste. Genevieve Co. Ext. Center	8	9 Poplar Bluff Garden Show Black River Coliseum Native Plant Seminar, Cape Girardeau Cons. Nature Center, Cape Girardeau, MO
10	11	12	13	14 Cape Girardeau Co MGs, 7pm, Cape Co. Ext. Center	15	16
17	18	19	20	21	22	23
24/31	25 Perry Co. MG 6:30 pm, Perry Co. Ext. Center	26	27	28	29 Contact your local Extension Center if you have questions about any event on the calendar.	30

April

- 1 - Parkland MGs 1st Monday at 6:30pm, Botkin Lumber CO, Frmgtn Industrial Park
- 2 - Poplar Bluff MGs 1st Tuesday at 6:30pm, PB Ext Center in Poplar Bluff
- 9 - Garden Program Tomatoes; Thayer, MO
- 11 - Ste. Genevieve MGs 2nd Thursday, at Ste. Gen. County Ext. Center at 6:30pm
- 11 - Delta Area MGs 2nd Thursday at 7:00pm, Medical Arts Building, Sikeston, MO
- 18 - Cape Girardeau County MGs 3rd Thursday at Cape County Ext. Center at 7pm
- 18 - Advanced Training; Shiitake Mushroom; Poplar Bluff, MO
- 22 - Perry County MGs 4th Monday at the Perry County Ext. Center at 6:30pm

Upcoming Events

- May 18 to 19 - Ste. Genevieve Garden Walk in Ste. Genevieve, MO
1-800-373-7007
- June 18 - Season Long Bloom Program; Library, Caruthersville, MO
573-333-2480
- August 13 - Master Gardener Core Training in Poplar Bluff, 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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