Growing Herbs
by Katie Kammler

Herbs are popular plants in the garden, either for actual use in cooking or the beauty of the plants. An herb is defined as a plant or part of a plant valued for its medicinal, savory, or aromatic qualities. A culinary herb is suitable for use in the kitchen. There is also a difference between spices and herbs. A spice is a variety of aromatic vegetable substances, such as ginger, cinnamon, and nutmeg that are used as flavorings. An herb is a plant that does not produce woody, persistent tissue and generally dies back at the end of each growing season. The history of herbs can be traced back to ancient Egyptians and Chinese. Herbs were considered valuable and referenced in the Bible as tax payments.

Why grow herbs?

- With little effort and the grower is rewarded with aromatic, colorful foliage, scented flowers, savory leaves, and spicy seeds
- Can tuck into existing flower beds, vegetable gardens
- Can be grown in pots indoors and out
- Few pest and fungal problems
- Health benefits
- Flavor
- Aesthetics
- Uses include seasoning for food, teas and beverages, aromatic, and medicinal

Most herbs require full sun and well-drained soil. Fertilizer is unnecessary for most herbs and minimal watering is needed once the plants are established.

Growing herbs in containers works well also. This can help control herbs that are invasive spreaders and they can be taken indoors in the winter for year round use. The key is having adequate drainage and good quality potting mix. Also remember that any potted plants require more water than garden grown plants.

Some herbs are annuals (ex. basil, cilantro) and must be grown from seed every year. A few herbs are biennials, a two year growth cycle,
such as parsley and caraway. Luckily, most culinary herbs are perennials. Herbaceous perennials die back over the winter and return in the spring while woody perennials have stems that survive and continue to grow from year to year.

**Harvesting**

- Leaves are harvested in the morning after the dew has evaporated, before flowering except for mints which have the most oil in the leaves when the spikes are in full bloom.
- The whole plant is harvested just before flowers open, 3 inches above the ground for annuals and taking no more than 1/3 of perennials.
- Flowers are harvested midday in dry weather and picked just as they fully open; avoid damaged or wilted flowers.
- Seeds are harvested on a warm, dry day when they are fully ripe with no green showing; shake into a paper bag or cut flower and hang over a tray.
- Roots are harvested when the plant parts above ground begin to wither; dig up the whole root, take the amount required and replant the remainder.

For more on individual growth habits of herbs and their uses, refer to MU Guide Growing Herbs at Home. [http://extension.missouri.edu/p/g6470](http://extension.missouri.edu/p/g6470)

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**Garden Myths - Adding Lime**

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.

**Lime should be added each year to soil.** Lime is usually calcium carbonate rock ground finely for ease of use. This is added to soil to increase pH. Another type of lime is dolomitic lime which contains equal amounts of calcium and magnesium.

In general the pH of soil should be between 6.0 and 6.5 unless your plant likes acidic soil. If the soil pH is too high then adding lime will continue to raise the pH, making it more alkaline. Once it is high, it is harder to reduce the soil pH back to neutral. Soils that are either high or low in pH will be out of balance causing nutrient deficiencies in plants and poor plant growth. The graph below shows the availability of nutrients as the pH increases and decreases.

The response to the lime myth is, “What does the soil test say?” If pH needs to be increased, then lime is needed and the soil test will tell you how much. Don’t make the mistake of adding it each year without knowing for certain that the soil requires it. It will take time and money to correct this mistake.

Although limestone is commonly found in Missouri, test the soil, don’t guess.

If you think you have added too much lime, then get your soil tested and contact your local Extension Horticulturist for help interpreting your soil test results and for advice on correcting the situation.
Ornamentals
- When buying bedding plants, choose compact, bushy plants that have not begun to flower.
- If you buy plants that have blooms, pinch them off before planting so the plant will use its energy for root establishment instead of flowering.
- Winter mulches should be removed from roses. Remove dead wood by pruning.
- Examine shrubs for winter injury. Prune all dead and weakened wood.
- Consider planting flowers that can be dried for winter arrangements. Some of the best are strawflower, statice, Chinese lantern, celosia and globe amaranth.
- When chrysanthemums show signs of life, dig up and divide large plants. Discard woody portions and replant divisions 12 to 15 inches apart.
- Many popular plants can be divided now including: phlox, fall asters, Shasta daisies, baby's breath and liriope.

Vegetables and Herbs
- Plants started indoors should be hardened off outdoors being transplanted into the garden.
- Use frost blankets to protect tender vegetables from late frosts.
- Thin out crowded seedling from earlier plantings of cool season crops such as leaf lettuces, beets, carrots, radishes, spinach and mustard.
- Flower stalks need to be removed from rhubarb plants, if they develop.
- Now is the time to divide mint, chives, tarragon and creeping thyme.

Fruits
- For specific times to spray fruit crops, consult University Extension Guide Sheet #G6010, Home Fruit Spray Schedule.
- Plant bare-root or potted fruits as soon as the soil can be worked.
- Remove tree wraps from fruit trees now.
- Protect bees and other pollinating insects. Do not spray insecticides on fruit trees that are blooming.
- Remove straw covering from strawberries.

Laws
- Start mowing cool season at recommended heights.
- Aerate turf if thatch is heavy or if soil is compacted.
- Apply crabgrass preventer by the first week of April. Do not apply to areas that will be reseeded.
- The first grass clippings of the season are rich in nutrients and contain fewer weed seeds than those collected later. Put them in the compost pile or mow frequently and mulch them on the ground.
When developing a design for your home garden it is often helpful to think of a theme which can create a focus and help unify the design. Color is one of the design principles but it can also be used as a theme.

Just as you use color in art, color can be used in landscape design to create balance, rhythm or focal points. Use color in combination such as complementary colors (colors opposite each other on a color wheel), warm hues (orange, yellow, red) which tend to jump forward in a design making a space feel smaller or cool colors (blue, violet, green) which tend to recede into the background making a space feel larger.

Analogous colors can be used to provide some variety while still creating a mood. Yellow, yellow-orange and orange might create a very happy and lively environment while blue, purple and violet would create a sleepy and relaxing environment.

One color may be selected as a focus to make a point. A romantic garden might use the color red, a garden that is used in the evening might use shades of white which show up better in low light, those who like a challenge might focus on the color blue the use of which shows the amount of thinking behind the garden.

Also remember that one warm color flower makes the same impact from a distance as 5 cool color flowers.

A true theme, such as America, can be reinforced by using the colors red, white and blue or someone who is a fanatic for a particular sports team might focus on those colors.

If you have someone in your family that is color blind the rules change. They often do not see the subtle changes in color but only see blue, yellow and green. In this case you may want to concentrate on large areas of one color such as yellow in contrast with large areas of the color blue. Red and green often look the same so it may be a waste of time to collect many shades of red. Make a garden exciting by using obvious contrasts in texture such as large leaves, hosta, against small leaves, fern. Use flowers with interesting shapes like iris or large hydrangea.

The real excitement is in finding plants that fit the scheme once you have decided what the color scheme will be. As always the landscape is alive. Don’t feel pressure to finish it in one season. You may have an empty space that is waiting for a new variety that won’t be available for 3 more years.

Flowers are those little colorful beacons of the sun from which we get sunshine when dark, somber skies blanket our thoughts.

~Dodinsky
If you have a bad weed problem, you might consider using an herbicide. In order to choose the right one for the situation, understanding how herbicides work is very important. Herbicides are classified in three ways: range of activity, mode of action, and targeted stage of weed growth.

Range of activity is defined by how the herbicide acts on certain plants. Selective herbicides target a specific range of species. Examples include Sedgehammer (halosulfuron) for control of nut sedge, 2,4-D for control of broadleaf weeds (many applications in lawns), and Poast (sethoxydim) controls grasses. Non-selective herbicides target a wide range of species. An example of this is Roundup (glyphosate).

Mode of action is the overall manner in which an herbicide affects a plant at the tissue or cellular level. Herbicides with the same mode of action will have the same translocation (movement) pattern and produce similar injury symptoms. Mode of action is broadly separated into two categories, contact and systemic herbicides.

Contact herbicides kill a plant on contact. They are not absorbed or translocated in the plant or the soil. This class of herbicides leads to very rapid plant death and are dependent of temperature for activity. They are very effective on annual weeds but have poor control of perennials because they are not translocated through the plant. They will burn the foliage down but perennials will come back from the root system. Contact herbicides are usually non-selective, meaning they will kill the foliage of anything they touch. An example of a contact herbicide is Gramoxone (paraquat), a restricted use herbicide, meaning you have to have a pesticide applicators license to apply it.

Systemic herbicides are absorbed by external tissues and translocated to sites of activity. They are temperature dependent and have variable soil activity. They are effective on both annuals and perennials. There are both selective and non-selective forms. Roundup is an example of non-selective systemic herbicide.

Targeted stage of growth is the last herbicide classification. Pre-emergent herbicides inhibit seed germination and are usually selective. There is variable length of activity depending on the herbicide and the weather. Most are commonly used to control annual weeds. Preen (trifluralin) is an example of a pre-emergent herbicide commonly used in flower beds and vegetable gardens. Post-emergent herbicides kill plants once they have commenced vegetative growth. There are both selective and non-selective types. An example is Roundup.

The number one rule of effective herbicide use is that the plant must be actively growing. Being able to identify the weed and why might be a problem are also part of a weed management plan. Always be sure to read the label of any pesticide and use it according to the directions. Use the right solution for the right problem.

A weed is a plant that has mastered every survival skill except for learning how to grow in rows.
~Doug Larson
Natives plants survive in the wild against natural predators. These are not limited to insects or microbes but include animals. Survival may be attributed to resistance to a particular predator. What natives are highly resistant to deer?

*Asclepias tuberosa*, butterfly flower, is a perennial that reaches 2.5 feet in height. It blooms June to August in full sun. Attracts butterflies, is deer and drought tolerant. Established in 2 years from seed.

*Coreopsis tinctoria*, plains coreopsis, is an annual that reaches 4 feet in height. It blooms June to September in full sun. Attracts butterflies, is deer and drought tolerant. Freely self-seeds.

*Eupatorium coelestinum*, blue mistflower, is a perennial that reaches 3 feet in height. It blooms July to October in sun to part shade. Attracts butterflies, is deer resistant. Divide every three years.

*Iris cristata*, dwarf crested iris, is a perennial of less than 1 foot that blooms in April. It prefers sun to part shade. It is deer and drought resistant. Divide.

*Lobelia cardinalis*, cardinal flower, is a perennial with a height of 4 feet. It blooms July to September in part shade. It tolerates wet soil, deer and rabbits. It attracts butterflies and hummingbirds. Divide in spring.

*Monarda bradburiana*, Bradbury beebalm, is a perennial with a height of 2 feet. It blooms in May in full sun to part shade. It is fragrant, attracting hummingbirds and butterflies. This drought and deer resistant plant self-seeds.

*Penstemon digitalis*, smooth beard-tongue, is a perennial that reaches a height of 5 feet. It blooms April to June in full sun. It is attractive to birds and butterflies. It is deer and drought resistant.

*Polemonium reptans*, Jacob’s ladder, is a perennial that reaches a height of 1.5 feet. It blooms April to June in full sun to part shade. It is deer resistant and freely self-seeds.

*Sedum ternatum*, wild stonecrop, is a perennial groundcover that blooms in April and May. It prefers full sun to part shade. It resists deer, drought, rabbits and air pollution.
### April 2013

#### Group News - What’s Happening

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<th>Sun</th>
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<td>Parkland MG, 6:30pm @ Botkin Lumber Co. in Farmington Industrial Park</td>
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<td>Poplar Bluff MG, 6:00pm @ Extension Center in Poplar Bluff</td>
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<td>Seed Starting Party, Jackson, 6pm, RSVP at 573-238-2420</td>
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<td>Ste. Genevieve MG Meeting, 6:30pm, at the Ste. Genevieve Co. Ext. Center</td>
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<td>Madison County MG Spring Seminars at Fredericktown Library - Berries and Pruning Ornaments, 6:30 pm</td>
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<td>Cape Co MG, Jackson Ext. Office, 7pm</td>
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<td>Adv. MG Training - Shiitake Mushrooms: Hendrickson Park, Poplar Bluff, MO; 9-12pm Fee:40</td>
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<td>Bollinger County MG Spring Seminars, Trellis Making and Container Gardening, 10 am at Ext. Office in Marble Hill</td>
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<td>Perry Co. MG 6:30 pm, Perry Co. Ext. Center</td>
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<td>Cape County MG Spring Garden Festival, Arena Park, Cape Girardeau, 8am until 2 pm</td>
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**May**

1. Kress Farm Garden Preserve Plant Sale from 9 am until 3 pm. For more info, call Jo Ferguson at 636-296-9306.
2. Parkland MGs 1st Monday at 6:30pm, Botkin Lumber CO, Frmngtn Industrial Park.
3. Poplar Bluff MGs 1st Tuesday at 6:00pm, PB Ext Center in Poplar Bluff.
5. Cape Girardeau County MGs 3rd Thursday at Cape County Ext. Center at 7pm.
7. Perry County MGs 4th Monday at the Perry County Ext. Center at 6:30pm.

**Upcoming Events**

- **June 15** - Cooking with Herbs; Ste. Genevieve, MO
- **June 18** - Season Long Bloom Program; Library, Caruthersville, MO 573-333-2480
- **July 16** - 4:30 pm @ Rice Hall, Mineral Area College in Park Hills, MO Starting Fall Garden plants from Seed; Moles, Moles, Moles; Drought Tolerant Landscaping
- **July 24** - Advanced Training Creating Flower Displays; 1st Presbyterian Church, Poplar Bluff, MO Fee: $15

If you have a horticultural related event for the calendar call 573-686-8064 to add it.
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 section 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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