



THE GARDEN SPADE



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

Right Tool for the Right Place

by Sarah Denkler

April 2010

When you first begin to garden you may start out with a shovel, a rake or hoe. As you get more engaged in outdoor garden activities you find that there are many different tools and each has a purpose for use in your yard. Here is help If you are looking for ideas for gifts or curious about the many tools available.

Of course the basic shovel comes in many different shapes. Round shovels are good for digging holes to plant ornamental shrubs and trees. If you are lucky you can find one with a wide step to help penetrate the ground. Long, thin shovel blades are good for digging trenches for irrigation or brick walls. Straight edge shovels are great for edging landscape beds and sidewalks. Each of these should be kept sharp for the least amount of resistance when using.

Rakes are available for very different purposes. You may need a rake for leaves in the fall which requires longer, thin tines. A garden rake, with short, wide tines, is used to help prepare a smooth seed bed. Some very wide rakes are used to prepare a fine, smooth surface for grass seed. Again, choose your handles wisely and the

rake itself is available in steel, aluminum or plastic so you will have to decide which material will hold up best for your situation.

One of the most versatile tools for the yard and garden is the hoe. You can chop and dig weeds, dig holes for plants, prepare a fine seed bed and

loosen soil with a properly sharpened hoe. The horse shoe hoe can be pulled or pushed to prepare soil. The common garden hoe comes with a wide blade or a

skinny blade. These are chosen based on plant spacing. The circle hoe is a round hoe that is used to work easily between plants.

Let's not forget that sometimes you just need to get down on the ground to dig holes or weeds. For these jobs you need hand tools. Small spades for digging transplant holes and weed pullers for digging up dandelions are available in small hand sizes. You can also find small soil rakes, bulb planters, hand hoe and garden dibber for digging or planting bulb and transplant holes. These tools can be abused by the gardener as some



Garden Dibber from the Museum of Early Trades and Crafts.

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Right Tool for the Right Place

by Sarah Denkler

(Continued from page 1)

weeds and soils are tougher than first imagined. Choose a sturdy tool instead of the cheap variety. Hand tools are often not that expensive no matter what type you get.

There is a group of tools known as ergonomic tools that were first designed for gardeners who have back problems, arthritis or a lack of mobility that made traditional tools hard on the body. These tools often have modified handles that allow for varied grips or longer or shorter handles that allow for sitting while you garden. Many gardeners use these tools regardless of need because they are often more comfortable than traditional designs.

Wooden handle tools are usually the easiest to find and often the least expensive. Take care in selecting your tools. Wood handles require oil each year and should show the grain of the wood running the length of the handle. You should find a handle that becomes part of the blade (tool) rather than being screwed to it at the end. These will last much longer and not break as easily.

Metal or fiberglass handles can have a much longer shelf life. While these cost more, if you do a lot of gardening you may find you spend less by purchasing a very strong handled tool one time, instead of replacing a less expensive weak handled tool many times. Of course personal preference always trumps when choosing your equipment.

You can't forget gloves, hat, sunscreen as basic 'tools' for working in the garden. A wheelbarrow and hose are also minimum essentials. You can also find ergonomic wheelbarrow's and hose handles that are curved in shape to make it easier to grip the handles.

Some sources for tools include the following. Ask friends where they get their most loved tools for ideas.

Lee Valley Tools:

www.leevalley.com

Gardeners Supply Company:

www.gardeners.com

A.M. Leonard:

www.amleo.com

Pest of the Month: Sowbugs and Pillbugs

By Katie Kammler

As a kid I was fascinated by these insects because of their ability to roll into a tight little ball. The fascination has worn off now as I have seen them eat off my pansies and travel into the house in the bottoms of plants brought in for the winter. They will also enter homes through cracks and crevices (you don't have to bring them in like I did!) They are very dependent on moisture and will not survive indoors longer than a few days without it.



Sowbugs and pillbugs are two different insects that are closely related to shrimp. Sowbugs are light gray and more flat in shape than pillbugs which are darker in color and roll into a perfect ball shape. They prefer moist areas outside at the soil surface in mulch, leaf litter, grass clippings or the bottom of my flower pots! They don't pose any economic or health threat to humans but can occasionally damage roots or tender plant stems with large populations.

April Gardening Calendar

By Donna Aufdenberg

Outdoor flowering plants and Ornamentals

- When purchasing bedding annuals this spring, choose properly grown plants with good color. Buy plants with well-developed root systems that are vigorous, but not too large for their pots.
- Fertilize bulbs upon emergence of foliage with a 10-10-10 fertilizer, using a rate of 3 pounds per 100 square feet. Repeat the application after the bulbs have bloomed.
- Plan to attract hummingbirds to your garden this year by planting red or orange flowers. Monarda is a good perennial to provide nectar for these small birds.

Vegetable Gardening

- Plastic jugs make inexpensive and easy-to-use “hot caps” for your vegetable seedlings.
- When weather is wet or cold, allow about twice the germination time listed on the seed packet. If there is no sign of growth after this time, dig around a little to check for sprouted seeds. If you find no signs of life, the seed has probably rotted, and you will need to replant.
- When planning your vegetable garden, consider that leafy vegetables need at least six hours of sunlight to develop properly. Fruiting vegetables such as tomatoes, squash, eggplant and peppers need 10 hours of full sun.
- Some people report luck with beer as a pesticide for slugs. Place it in small, aluminum, pot-pie pans sunk in the ground with the soil even with the rim.



Fruits and Nuts

- When apple trees are in full bloom, make a note on your calendar 150 days later to check for ripeness.
- Thin young fruits of apples, pears and peaches to insure larger, healthier fruit. Thin within 25 days of peak bloom, leaving 4 to 6 inches between fruit.
- Grape vines with excess vegetative growth generally have less high-quality fruit. In early spring, prune out the canes with the fewest buds to allow light, moisture and air circulation within the plant to improve the quality and quantity of fruit.

Lawns

- Control lawn weeds now through late May before they get large and temperatures get too high to apply herbicides safely.
- Estimate your grass seed needs at 2 to 3 pounds of bluegrass seed or 4 to 8 pounds tall fescue per 1000 square feet.
- Do not mow the lawn until it has grown at least two inches. The roots are being renewed in the spring and grass needs vigorous top growth initially.

Tips for Getting the Most Out of Your Vegetable Garden

Sketch out your garden before planting for proper spacing and best space utilization.

Consider starting a garden journal to record plants grown, planting dates, success/failures, and things to try.

Use varieties with shorter maturity dates followed by varieties with long maturity dates

Plant in succession. Radishes every 10 days; lettuce every 2 weeks; Squash every 3 weeks; Beans every 3 weeks.

Start cucumbers, squash, and other warm season varieties indoors for transplanting outdoors.

DISEASE OF THE MONTH

Bacterial Disease on Tomato by Sarah Denkler

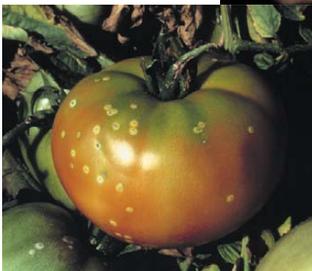
The last frost date is fast approaching and I have been craving fresh tomatoes since I ate my last one last fall. Before you put your first tomato plant in the ground lets review some potential disease issues.

Common problems that affect tomato are mosaic virus, spotted wilt virus, root knot nematode, and several fungi that cause septoria leaf spot, fusarium and verticillium.

There are also bacterial problems that may occur. Bacterial spot, *Xanthomonas campestris* pv. *Vesicatoria*, infect both tomato and pepper plants. This bacteria overwinters in soil, debris and in seeds. Spots will appear on leaves and stems and develop yellow halos as they enlarge. These will grow together and cause drying of leaves and wilting of plants. On fruit you will see raised black dots that appear pimply and scabby.

Bacterial speck, *Pseudomonas syringae* pv. *Tomato*, does not affect pepper plants but does cause spots with yellow margins on leaves. The small specks that appear on tomato fruit are very pronounced and can be scraped off with a fingernail. You may see this disease on fruit after a cool rainstorm as cool wet weather triggers growth of the bacteria. This disease also overwinters in soil, seeds and debris as well as other plants.

Bacterial speck on the left and Bacterial spot on the right.



Spots caused by Bacterial canker.

Bacterial Canker, *Clavibacter michiganensis* subsp. *michiganensis*, causes older plant leaves to turn brown on the edges on one side of the plant and spread as leaves die. Infected transplants will wilt and die. Small raised spots on fruit start out white and develop dark colored centers with white halos. This discoloration will turn brown with age. Frequent scouting is essential to accurately identify the problem as it progresses.

The best way to control bacteria is to start with disease free plants and those resistant to bacterial issues. Destroy weeds growing around desired plants to eliminate the spread of the bacteria. Products with copper can be used to decrease the spread of bacterial spot and speck but have little effect on canker. These products will not eliminate the bacterial diseases but will reduce the spread.

Source: Mark L. Gleason and Brooke A. Edmunds. *Tomato Diseases and Disorders*. Iowa State University. <http://www.extension.iastate.edu/>

Repurpose, Reuse, Recycle - Pass It On

By Barb Gray

Newspaper is an excellent weed suppressor; spread it at least six sheets thick between your plants, overlapping each sheet, and water well, till the sheets soak together and form a sort of papier-mâché. Newspaper allows the water to penetrate the soil but keeps the weeds away.



Gardening in the Shade

By Katie Kammler

Shade can be a challenge in a landscape situation. The key is to pay attention to the amount of shade that your landscape gets and realize that it will change over time. The best way to cope with low light levels is to choose plants that do well in less light. There are several factors to consider when choosing plants for your shade garden.

Light shade is an area that is shaded but bright. It can mean that the area is shaded for a couple hours of the day or filtered sunlight for longer periods. Partial shade is when direct sun rays are blocked from the area for most of the day. Full shade lasts all day and little or no direct sunlight reaches the ground at any time of the day. Shade patterns also change depending on the season. An area of full sun in the summer may have partial shade in the spring and fall. Pruning trees and shrubs may also increase the light available to plants. Reflected light off of light colored siding or fences can be taken advantage of as well.

Competition is a factor that must be considered



for shade plants. They must compete with roots of shade trees for nutrients and moisture. Some trees, like maple and willow, have shallow root systems to contend with and they also make planting very difficult. Because of this, shade gardens can dry out more quickly than sunny sites during dry periods. This situation can be improved by

adding organic matter which will help hold moisture and provide nutrients for the plants. Some shade tolerant plants can survive with low moisture but others require moist shade. Provide water according to the plants' needs. Poor air circulation can also be a problem when combined with low light conditions, leaving plants with

wet leaves that can cause plant disease problems. Spacing plants farther apart and using soaker hoses will help reduce this problem.

For lists of shade tolerant plants, refer to MU Guide *Gardening in the Shade*. <http://extension.missouri.edu/explorepdf/agguides/hort/g06911.pdf>

Those Sticky Labels on Fruits and Vegetables

By Donna Aufdenberg

The codes found on stickers of fruit, vegetables, herbs and nuts not only help cashiers identify the fruit but it can also tell us how the product was grown.

These stickers are composed of 4 or 5 digit numbers. The classification is fairly simple - the produce is divided into conventional, organic or genetically modified.

All 4 digit codes are grown conventionally so it is safe to assume that pesticides and synthetic fertilizers were used.



Five digit codes are simply the four digits with a single number added to the front: 8 or 9. If the first of five numbers is 9, then it has been grown to the standards defined by the National Organic Standards Board. If the first of five numbers is 8, the fruit is genetically modified.

This coding system was developed by The Produce Marketing Association.

For more information, check out <http://www.nationalfinder.com/fruitlabels/>

Upcoming Volunteer Opportunities and Activities

by Donna Aufdenberg

Here are some of the upcoming volunteer opportunities and activities in the Cape Girardeau County Area.

- Birds, Bees & Butterflies at 10:30 a.m. on Saturday, April 10th at the Riverside Regional Library located at 1997 E. Jackson Blvd. in Jackson. Birds, bees and butterflies can be welcome visitors to our yards and gardens. Learn about their importance, how to plan for them and what you can do to attract them. Sponsored by the Friends of the Library and Presented by Joyce Brewer of Perry County Master Gardeners.
- The Cape County 10th Annual Plant Sale is Friday April 16 from 3-7 p.m. and Saturday April 17 from 7 a.m.-2 p.m. If anyone would like to help, we will be setting up on Thursday April 15 at the Arena Park Conservation Shelter at 8am. Please call Anne Foust @ 573 837 6936 or Gayla Gunter @ 573 587 9450 for more



information.

- All Master Gardeners are invited to a workday at the Oliver House at 224 East Adams in Jackson on Saturday, April 24. The fun begins at 9 a.m. and any time you can share is much appreciated!

Please bring your gardening tools. If you have questions you may call Judi Niederkorn at 573-243-7058. Thanks very much!

- Work day at the Rock Garden in Jackson City Park on Saturday April 24 at 8:00 am till around 12 noon. We will be working on the beds at the

Rock Garden and Band Shell. We would also really appreciate having a Master Gardener volunteer to be the new project chairman of the Band Shell beds. Participants on Park Day receive a t-shirt and lunch. Bring shovels, gloves, buckets and wheelbarrows. We will be cleaning up beds and mulching.



The Garden Spade

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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Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
<p>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.</p>						
4	5 Parkland MG Meeting, 6:30 pm, Farmington Courthouse Annex, Third Floor	6	7	8 Cape Girardeau Co. MG, 7 pm, Cape Co. Ext. Center Spring Gardening Seminar, 6:30 pm, Bollinger Co. Library - Native Aquatic Plants	9	10 Program on Birds, Bees and Butterflies at Riverside Regional Library in Jackson at 10:30 a.m.
11	12	13	14	15 Spring Gardening Seminar, 6:30 pm, Bollinger Co. Library—Rain Gardens and Home Storm Water Management Poplar Bluff MG, 6 pm, Ext. Center	16 Cape County Master Gardener Plant Sale at Arena Park in Cape Girardeau	17
18	19 Ste. Genevieve MG Meeting, 6:30pm, at the Ste. Genevieve Co. Ext. Center	20	21	22 Spring Gardening Seminar, 6:30 pm, Bollinger Co. Library - Ornamentals & Victory Gardens	23	24 Work Day at the Oliver House and Jackson City Park in Jackson. See page 5 for information.
25	26 Perry Co. MG meeting, 6:30 pm, Perry Co. Ext. Center	27 Level I MG training at MAC—first session! April 27-July 6. Call Katie for more information 573- 883 -3548	28	29 Spring Gardening Seminar, 6:30 pm, Bollinger Co. Library - Container Garding	30	

Upcoming Events....

MAY

- 3 - Parkland Master Gardeners meet on the first Monday each month at 6:30 pm at the Farmington Courthouse Annex (Third Floor).
- 3 - Garden Club, 7:00 pm at the Cabin in Campbell, MO
- 4 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30pm.
- 17 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30 pm.
- 20 - Stoddard County Master Gardener Meeting is held every Third Thursday of each month at the Chamber of Commerce in Dexter, MO at 6:00 pm.
- 20 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7:00 pm.
- 24 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30 pm.

JUNE

- 1 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30pm.
- 7 - Parkland Master Gardeners meet on the first Monday each month at 6:30 pm at the Farmington Courthouse Annex (Third Floor).
- 17 - Stoddard County Master Gardener Meeting is held every Third Thursday of each month at the Chamber of Commerce in Dexter, MO at 6:00 pm.
- 17 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7:00 pm.
- 21 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30 pm.
- 28 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30 pm.

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,
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