



THE GARDEN SPADE



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

Consider Fall Vegetable Gardening

by Donna Aufdenberg

As fall approaches, most gardeners think about the end of the gardening season since the traditional time for growing vegetables is in the spring and summer. However, with a little work and planning, the gardening season can be extended well into the cooler months in Missouri.

Late summer and fall is an excellent time to grow many vegetable crops when the days are getting cooler and more moisture is available.



When planning for the fall garden, it is important to plan well in advance of the fall season. Considerations must be made to pace needed, soil preparation and variety selection. From the beginning of August until our first average frost date, we have approximately 75 frost free growing days left. With most vegetables, it is important to look for varieties with shorter growing times that will fit the time constraints.

Many gardeners like to plant the cole crops this time of year. Cole crop include vegetables like broccoli, cabbage, cauliflower, brussels sprouts and kohlrabi. These need to be planted by mid-August. I recommend planting these plants by transplants

rather than by seed, if possible and if you can find them locally.

Some of the warm season vegetables that are already planted will keep on producing until frost like tomatoes, beans, squash and cucumbers.

However, if your beans, squash or cucumbers have finished producing, they can be seeded again.

Any type of greens can be planted just like in the early spring. Most of the root crops such as turnips, carrots,

beets and radishes are great for planting. These plants can be seeded through the month of August.

Lettuce is good to plant again but if the weather is hot, it can be slow to germinate. Shade the soil and keep it slightly moist to improve germination. It can be planted at two week intervals to extend the harvest time well into the colder months. It can also be started in containers in the shade or indoors to get a jump start and ensure germination.

One thing to keep in mind is that you want your warm season crops to mature before frost. One easy way

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August 2010

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by Donna Aufdenberg

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to calculate your planting date would be to take the average first frost date, count backwards for the number of days it takes the crop to mature, and then add a little extra for harvest time. Our average first frost date in Southeast Missouri is October 15-20th. Most cool season crops will produce after a mild frost.

Many gardeners are pushing their garden harvest well into the late fall and early winter months by using frost blankets and low tunnels. These structures provide protection from frost and freezing temperatures by keeping the plants 3 to 7 degrees warmer than the average outdoor air temperature. These methods are simple over-wintering methods that are relatively inexpensive.

So, if you have never tried fall vegetable gardening, this is a good year to try since most of our cool season crops weren't very good earlier this season!

Vegetable for Fall Gardening

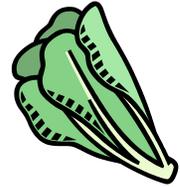
Lettuce - 45-65 days

Beets - 50-65 days

Broccoli - 50-75 days

Cabbage - 60-80 days

Cauliflower - 65-70 days



Carrots - 65-75 days

Radishes - 25-35 days

Spinach - 40-50 days

Mustard - 40-50 days

Kale - 55-60 days

Turnips - 40-50 days

Beans, Snap - varies

Cucumbers - 50-70 days

Okra - 55 days

Summer Squash - 40-50 days



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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August Gardening Calendar

By Donna Aufdenberg

Outdoor flowering plants and Ornamentals

- Keep newly planted trees and shrubs well watered.
- Clean up fallen rose and peony leaves. They can harbor disease and insect pests of the winter if allowed to remain on the ground.
- For dried winter arrangements, flowers with petals in bright yellow, orange, pink and blue colors preserve best. Red and purple become darker and less attractive; white flowers usually become buff or tan in a short time.
- During hot, dry August days, avoid deep cultivation in your flower beds. Loosening the soil under these conditions reduces water uptake and make plants often look much worse after cultivation than before.
- Continue spraying roses that are susceptible to black spot and other fungus diseases.



Vegetable Gardening

- Many herbs self sow if the flowers are not removed. Dill and sage seeds fall around the parent plant and come up as volunteers the following spring.
- Harvest winter squash and pumpkins by cutting with 2 or 3 inches of stem; they'll keep better in storage that way than if stemless.
- Plant a winter cover crop to enrich your garden soil. Annual rye, red clover, and hairy vetch are good choices.
- Fall vegetables can be planted until the 15th of this month. Vegetables include lettuce, radishes, cabbage, broccoli, cauliflower, spinach and turnips.
- Compost plant materials from the garden as crops are harvested. Avoid composting any plants that are disease or insect infested.

Fruits and Nuts

- If your apples are lumpy, they may have apple maggots. Be sure that fruit is not left lying on the ground because the maggots live in fallen apples and then pupate in the soil.
- Heavy rains at harvest can dilute the sugars in melons. Watermelons can re-concentrate the sugar if left for a few dry days however cantaloupes cannot do this.
- To reduce the number of pests on your fruit tree for the coming year, pick up and destroy all fallen fruit. Worms hide in the fruit and then pupate into the soil. They will be ready to lay eggs next year.
- Watch for fall webworm activity now.

Make a Seed Tape for Small Seeds

Supplies:

- Paper Towels, cut into strips: 3 x 12 inches
- White Glue
- Small Seeds: lettuce, radishes or carrots
- Ruler
- Pencil

Directions:

1. With a ruler and a pencil draw small dots every one inch in the center of the paper towel strip.
2. Place a drop of glue in the center of the dots.
3. Place one seed on each drop of glue
4. Allow glue to dry completely before moving or storing strips.
5. Place seed tapes 1/2 inch deep in garden.

This is a great way to ensure proper spacing of smaller seeds. Also a great idea for a project for children!

A Simple Retaining Wall

by Sarah Denkler

During the summer when planting in the ground is both impractical and irresponsible, you might find solace in a hardscape project. One such project to consider is building a retaining wall.

Small or large, these simple additions can improve landscapes by: redirecting traffic, reducing erosion and runoff, increasing garden space and establishing borders or barriers.

Many may be intimidated by the idea of installing a wall on their own. Although it can take some time, the process is not hard and can be therapeutic if approached with a positive attitude.

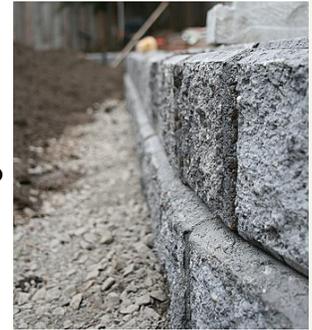
The best way to start is small. Don't begin your first wall on a hill with a steep incline or try to retain anything with a height of more than two or three feet. It is on walls higher than three feet that some real engineering skill is necessary so as long as you stay below this you have space for a learning curve.

Always start from the lowest point of the wall and work up the slope. Start by digging a trench for your lowest row, digging down as many inches as your block is high and at least twice as many inches as your block is from front to back. This is especially true if you are attempting a curve.

Once you have the trench dug fairly level, back fill with coarse sand or 1/2 inch minus gravel to a perfectly level, compacted, four inch depth. After the base is level begin laying down the first row of retaining blocks. The first row of blocks must be perfectly level as any discrepancy will grow larger as the wall gets higher. Use a small 8 inch level to check front to back and a three foot level to check the length of the wall. A rubber mallet is used to pound the block level with the rest of the row.



Laying the first row of blocks is the hardest part about installing a retaining wall. It can take up to one third of the time required to complete the entire job.



After the first row is complete you may need to install drainage tile behind the wall if you have issues with water seepage in your soil. Put the tile down and fill around it with appropriately sized rock to facilitate drainage of water through the tile and not the face of the wall.

Begin stacking the next row of blocks and continue until the wall is complete. Soil is backfilled as you go. One optional step is to place a cloth barrier between the wall and soil to keep particles from moving between blocks.

There are many styles of blocks to choose from when building a wall. Base the color on a building near the wall and pick a style that mixes well with your landscape.

Don't be afraid to try a simple retaining wall in your yard. Recruit family and friends and make a party out of the project.

Links of Interest: How to Build a Concrete Block Retaining wall. <http://www.familyhandyman.com/DIY-Projects/Outdoor-Projects/Backyard-Structures/Retaining-Walls/how-to-build-a-concrete-block-retaining-wall/Step-By-Step>

Block Retaining Wall. eHomeResource.com. http://www.ehomeresource.com/landscaping/retaining_walls/block_retaining_wall.html

Build a Block Retaining Wall. Easy2DIY. http://www.easy2diy.com/cm/easy/diy_ht_print.asp?page_id=35726782



Pin Oak Problems

by Katie Kammler

My office has been deluged with questions about pin oaks this year. None of the problems we are seeing have quick fixes, unless you would like to use a chainsaw and make some firewood. Pin oaks have a lot of problems and especially in years like this when they are stressed, the problems show up with more frequency.

Early this year before the trees leafed out, the questions were about the twig galls that make unsightly growths on the trees. The galls are caused by a tiny wasp and there are not any feasible control measures. Most of the time, they just look bad and will not harm the tree.

This time of year the questions are about the yellow leaves.

The yellow leaves are an indicator of iron chlorosis, a nutrient deficiency symptom. Pin oaks prefer well-drained, acidic soils. With a high soil pH, they develop these symptoms. It can occur on one side of a tree if you live near a limestone gravel road that is constantly increasing the soil pH. The leaves will be yellow with dark green veins, and some with angular brown spots and leaf margins. After suffering from chlorosis for a period of

years, branches and twigs may die. This decline can lead to other pest attacks and eventually death. If you have a tree with these symptoms, acidifying the soil may help the iron be more available.



I have also seen drought stress symptoms on pin oak. This is browning from the leaf margins in and the veins will still be green. They will not turn yellow first as with the chlorosis but may appear wilted first before becoming brown. Most will recover from drought but it is another stressor to the tree.

One last problem that I have been seeing a lot of this year, and not just on pin oak, is herbicide damage. Signs of herbicide drift are downward cupping of the leaves, distorted growth, and dead leaves. Some of this damage can come from neighboring farm fields, highways, and power line right-of-ways. It can also come from the weed control chemicals that you or your neighbor uses on your lawn.

If you haven't figured it out by this point, I am not fond of pin oak. There are a lot better options for shade trees that have a lot less problems. If you would like recommendations on trees, call your local extension office.

Cape County Master Gardener Update

By Judi Niederkorn

A Master Gardeners Corner will be a new feature attraction for Plant Sale 2011! This is a great opportunity to share extra plants from your beds, so as you thin and transplant your gardens this fall, please consider potting some starts to overwinter and then share at our Spring Plant Sale.

Thank you!

Judi Niederkorn, Vice President of the Cape County Master Gardeners

Insect of the Month: Hickory Horned Devil

by Katie Kammler

Hickory horned devil is Missouri's largest caterpillar, measuring about 5 inches long when fully grown. They may look scary but are harmless. They feed on hickory, pecan, walnut, and other trees but are never numerous enough to warrant control. The adult stage is a large regal moth that lays its eggs during the summer. In late summer and early fall, the caterpillars bur-



row into the soil to pupate and overwinter. Most remain as pupae for 11 to 23 months before developing into moths. I love having these come into the office and kids are fascinated by them.



Crossword Answers: Garden Soil Fun!

by Donna Aufdenberg

ACROSS

1. *Compaction* - Hinders penetration of air, water, and growth of roots.
3. *Cover Crops* - "Green Manure"
6. *Phosphorus* - Macronutrient that focuses on plants blooming and rooting.
8. *Calcium* - A deficiency of this nutrient causes blossom end rot in tomatoes.
9. *Tilling* - Excess of this can be damaging to soils breaking town soil structure.
12. *Soil* - Composed of mineral and organic components, water and air.
13. *Clay* - Soil with very small particles. These soils can store a lot of water and are "heavy". Not as permeable to air and water.
15. *Iron* - A deficiency of this nutrient causes yellowing and chlorosis.
17. *Manure* - Excrement of various animals: cow,



- horse, chicken, rabbit, etc.
18. *Microbes* - Soil life. Bacteria, Fungi, Protozoa, etc.
19. *Soil Texture* - Refers to the coarseness of the soil.
20. *Sand* - Soil with large particles. These soils are fast draining and subject to drought.

DOWN

2. *Micronutrients* - Nutrients that are needed in smaller or limited quantities.
4. *pH* - Measure of soil acidity or alkalinity.
5. *Organic Matter* - Plant and Animal residues at various stages of decay.
7. *Potassium* - Nutrient needed in large quantity for bud growth and fruit ripening.
10. *Loam* - Soil with a balance of sand, silt and clay.
11. *Nitrogen* - Essential nutrient; building block for green leaves and stems.
14. *Lime* - Raise soil pH.
16. *Sulfur* - Lower soil pH.



Group News - What's Happening

August 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 Master Gardener Training 3-6 PM @ Mueller's Garden Lane in Sikeston	3	4	5	6	7
8	9 Master Gardener Training 3-6 PM @ Mueller's Garden Lane in Sikeston	10 Poplar Bluff MG, 6:30 pm @ PB Ext. Center	11	12	13	14 Tomato Tasting Con- test at Bollinger County Farmers market in Marble Hill from 8:00-11:00 a.m.
15	16 Master Gardener Training 3-6 PM @ Mueller's Garden Lane in Sikeston Ste. Genevieve MG Meet- ing, 6:30pm, at the Ste. Genevieve Co. Ext. Center	17	18	19 Cape Girardeau Co. MG, 7 pm, Cape Co. Ext. Center	20	21
22	23 Perry Co. MG meeting, 6:30 pm, Perry Co. Ext. Center	24	25	26	27	28
29	30	31	<i>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.</i>			

Upcoming Events....

SEPTEMBER

- 2 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
- 3 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM
- 16 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 19 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
- 23 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30PM

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
- 18 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 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

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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We're on the WEB!!

[http://extension.missouri.edu/bollinger/
MasterGardener/semomg.htm](http://extension.missouri.edu/bollinger/MasterGardener/semomg.htm)

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