



THE GARDEN SPADE



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

Clematis

by Sarah Denkler

Clematis are a genus of woody vines with 250 varied species. Each has its own unique flower either by color, by size or by form. In the past several years, Clematis has grown in popularity because of the beauty of the flowers and the vertical dimension in the landscape.

Although many see clematis as a hard vine to grow, they can in fact survive for up to 25 years in the correct growing environment.

In our area clematis often succumb to wilt or leaf spot. This disease, caused by *Ascochyta clematidina*, will cause the stem to collapse and rot.

It occurs more on large flower types than small and can be found overwintering in debris and soil. The disease spreads activity during high humidity and rain. Symptoms are usually noticed as flowers begin to open.

For control, choose a site with six or more hours of sun that receives plenty of air movement. Select resistant plants and remove any disease tissue

or debris as soon as you notice it. Select large specimen plants if possible with strong, undamaged stems. Avoid damaging the roots. A preventative spray using sulfur can be used to prevent a new infection from occurring if the disease has been seen in the past and the infection removed.

Resistant cultivars include: *Clematis* 'Avant Garde', 'Bonanza', 'Confetti' *C.*



Flower of a wilt resistant cultivar: Clematis 'Bonanza'

alpina, *C. montana*, *C. orientalis*, *C. viticella* (which is tolerant rather than resistant), *C. integrifolia*, *C. macropetala*, *C. tangutica*.

Other issues that can have an affect on the vine include

powdery mildew (July or August) and aphids.

Plants should be planted in a loose, well-drained soil and covered with two inches of mulch to help retain soil moisture when it is dry. Pruning is based on the flowering type.

Early Flowering - bloom in spring on last seasons buds. These should be pruned as soon as they bloom to

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Clematis

by Sarah Denkler

allow for new growth and bloom next year.

Large Flowering - these bloom mid summer and again in fall. They should be pruned in March to remove dead and weak tissue. Cut back from the tip to the nearest group of living buds. They usually have few leaves at the base so you may want to surround them with other, small plants. Examples are Henryi, Niobe, Jackmanni Superba, Hagley Hybrid and General Sikorski.

Late Flowering - these bloom summer to fall and do not need any old wood to do so. These should be pruned in February to shape. A popular fall blooming variety is Sweet Autumn Clematis.

Repurpose, Reuse, Recycle - Pass It On

By Barb Gray

Here are a few ideas for recycling everyday products for gardening:

Chopsticks can be used as mini stakes on small vines.

Yogurt containers can be used to plant seeds indoor.

Bread bags as ties for tomatoes or vines.

Medicine bottles for harvested seed.

Packing peanuts in annual pots to decrease the amount of soil needed in the pot.

A Book Review

by Jamie Koehler, Master Gardener

The Book: Shady Retreats by Barbara W. Ellis

These out-of-the-way outdoor retreats provide busy gardeners with cool relief from the hot sun, as well as precious hours of quiet, privacy, and peace. In Shady Retreats, lifelong gardener Barbara W. Ellis provides detailed plans for 20 gardens with shade as the theme.

Each design includes easy-to-read blueprints and a glorious oil painting of what the garden will look like. Ellis also provides specific plant lists; suggestions on how to bring color into the shade; and practical advice on how to use shrubs, trees, vines, and man-made structures to create attractive, inviting, shady sanctuaries in any garden or yard.

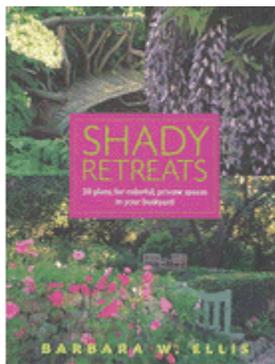
The garden design concepts are easy for even

novices to grasp, and experienced gardeners will appreciate the unique inspirations and down-to-earth advice on how to adapt the concept of the shady retreat to fit their own garden's configuration. Complete with suggestions on how

to use gazebos, containers, fountains, and other garden ornaments, plus an encyclopedia of approximately 100 shade-loving plants, Shady Retreats is an easy-to-use handbook that helps even beginning gardeners make the move out of the house and into a cool, inviting outdoor sanctuary.

Set a chair in the shady part of your yard and grab a glass of lemonade!

This book is full of wonderful ideas about how to bring life into even the darkest part of your garden.



September Gardening Calendar

By Donna Aufdenberg

Ornamentals

- Continue planting evergreens now.
- Herbs such as parsley, rosemary, chives, thyme and marjoram can be dug for the garden and placed in pots now for growing indoors during winter.
- Cuttings of annuals can be taken now to provide vigorous plants for overwintering.
- Except tulips, spring bulbs may be planted as soon as they are available. Tulips should be kept in a cool dark space until late October.
- Begin readying houseplants for winter indoors. Prune back excessive growth and protruding roots. Check for pests and treat if necessary. Houseplants should be brought indoors at least one month before heat is turned on.
- Perennials, especially spring bloomers, can be divided now. Enhance the soil with compost and peat moss before planting.
- Divide peonies now. Replant in a sunny site and avoid planting too deep.

Lawns

- Begin fall seeding or sodding of cool season grasses. Seedbeds should be raked, dethatched, or core-aerified, fertilized and seeded. Keep newly planted lawn areas moist, but not wet.
- Cool Season lawns are best fertilized in fall. Make up to 3 applications between now and December. Do not exceed rates recommended by fertilizer manufacturer.
- Lawns may be topdressed with compost or milorganite now. This is best done after aerifying.
- Newly seeded lawns should not be cut until they are at least 2-3 inches tall.
- It is not uncommon to see puffballs in lawn areas at this time.

Vegetables

- Egyptian onions can be divided and replanted.
- Sowing seeds of radish, lettuce, spinach and other greens in and cold frame will prolong fall harvest.
- Keep broccoli picked regularly to encourage additional productive side shoots.
- Tie leaves around cauliflower heads when they are about the size of golf balls.
- Pinch out the top of Brussels sprout plants to plump out the developing sprouts.
- Pinch off any young tomatoes that are too small to ripen This will channel energy into ripening the remaining full size fruit.
- Sow spinach now to over winter under mulch for spring harvest.

Trivia...

Watermelons!

Watermelons are native to South Africa.

The first seedless watermelon was developed in 1939 by treating an unpollinated flower with a specific acid.

The average watermelon weighs about 20 pounds. They are 90% water.

Watermelons are divided into four general categories: Allsweet, Icebox, Seedless & Yellow Flesh

A ripe melon has a creamy white or yellowish underside and the rind in general has a healthy sheen. It will sound hollow when knocking on it.

According to Guinness Book of World Records, the largest watermelon weighed 262 lbs. in 1990 in Tennessee by a grower named Bill Carson.

Plant of Merit - *Asimina triloba*, PawPaw

by Sarah Denkler

This perennial fruit tree is native to Missouri and grows in zones 5 to 9. It can grow to a height of 30 feet but usually grows between 15 and 20 feet tall. It prefers a wooded slope and will grow in both full and partial shade. The small blooms hang down from the stem in clusters. They are the color of dried blood and give off an odor that attracts flies, the main pollinator. The irregular, oblong fruit starts green turning yellow and then brown. Fruit will cluster on the stem, attracting wildlife as a food source. It tastes like a sweet banana and can be eaten raw or in pies. The leaves are dark green and hang down from the stem like dog ears. These turn yellow in fall with varied results. Zebra swallowtail feed on these as a caterpillar.



Fruit courtesy of Missouri Botanical Garden. Lower view of flower courtesy of V. Albert, University of Texas at Austin

Pest of the Month - Pecan Weevil

by Sarah Denkler

Although the adult of the pecan weevil emerged around July and laid eggs beginning in mid-August, the damage from these weevil grubs will not be seen for about 30 days. In late September the grubs will begin to emerge from the nut leaving a 1/8 inch hole in the shell. The real damage can be found inside the nut where the weevil has been feeding as it grows. Most grubs will often remain in the larval stage under the very same tree they originally infested so there may not be much movement from tree to tree.

This is a serious late season pest of pecan. Control can be aided by spraying insecticides (Bt s. kurstaki,

carbaryl, or chlorpyrifos) at gel stage and again 10 to 14 days later. In order to monitor for adults and determine proper spray timing use four cone shaped traps below the canopy by the end of July.



Pecan Weevil larva and exit holes courtesy of Clemson University.

Winter Cover Crops

by Katie Kammler

Vegetable gardening has been tough this year with the huge variances in the weather from cool and extremely wet to blistering heat and drought. I think every gardener has the goal of having a productive garden every year and that starts with maintaining a sustainable soil. A good management technique is to build up and maintain the soil during the off season so it will be more fertile and productive for the next growing season. Cover crops help do this by contributing to soil fertility, building soil structure, breaking up repetitive vegetable cropping cycles, controlling erosion, suppressing weeds, reducing soil compaction, and decreasing nutrient leaching.

Cover crops have long been used to reduce soil erosion and add organic matter to improve the soil. They can be used in traditional cropping but also cover crops are a great tool to use in an organic system. They take up and hold nutrients, especially nitrogen, that were not used in the previous vegetable crops. They remove water from the soil so they may reduce the risk of nutrients and pesticides moving through the soil. Cover crops can reduce weed problems and the need for herbicides by competing with them for space and nutrients and by providing a mulch to cover the soil surface. Some also release chemicals that suppress weed growth and may reduce populations of soil-born plant pathogens.

There are many different types of cover crops for both summer and winter growth. Small grains are the most commonly used winter cover crops.

Wheat, rye, barley and oats are all very effective winter cover crops. Another advantage to these crops is that they can be harvested as forage,



Oats



Rye



Wheat

straw, grain, or left in the field to provide mulch and organic matter. When planted early enough in the fall, they provide good winter cover. If they are tilled in during the spring, they are also called green manures. In this case they help maintain soil organic matter and nitrogen availability. All soil tests will have an organic matter reading, the higher this percentage is, the less synthetic fertilizers you will need to apply.

Rye is perhaps the best overall small grain cover crop. It can be seeded from August to mid-November. It germinates quickly, grows fast and provides good winter cover. Rye is also effective at suppressing weeds. It resumes growth quickly in the spring but because of this quick growth, it may produce too much top growth if not killed soon enough. The seeding rate is 2 bushels per acre.

Wheat is also an excellent cover crop but most people think of it as a grain crop. It is more versatile and easier to manage than other small grains. Seeding can begin in mid-September to mid-November but later planting may not provide good winter cover and weed suppression. It can also be harvested as a grain crop. Wheat does not grow as quickly in the spring as rye and is not as likely to cause problems with too much top growth.

The seeding rate is 2 bushels per acre.

Oats can be used as a winter cover crop but are

Winter Cover Crops

by Katie Kammler

not as effective as other small grains. They do not provide as much biomass (green growth) as wheat and rye. They are also susceptible to winter kill and start growing later in the spring. There are also winter and summer varieties so be sure to have a winter variety if planting in the fall. The seeding rate is 2 bushels per acre planted in the early fall. Even if they are winter killed, the residues will still provide protection for the soil but some nutrients may be lost and weed suppression will be reduced. Barley is very similar to oats in that it is susceptible to winter injury and also has problems with barley yellow dwarf disease. This is planted



Barley

at a rate of 2 ½ bushels per acre in late September.

When you are preparing your garden in the spring, the cover crops can be mowed off and/or tilled under to add organic matter and nutrients to the soil. They can also be used in no-till systems such as wheat that is harvested in June and a late summer crop planted into pumpkins or squash. The residue acts as a mulch to hold in moisture, reduce weeds, and keep the produce clean. Cover crops provide many benefits. With little work or investment, they are a good option to consider for your garden.

Hoop Houses Can Offer Season Extension

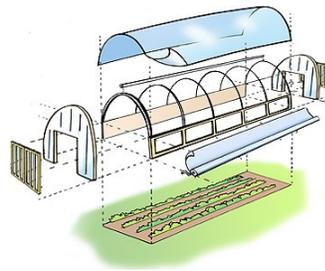
by Donna Aufdenberg

There has been growing interest in using hoop houses and high tunnels to extend the garden season by commercial growers as well as home gardeners.

A hoop house is a low-cost, poly covered, unheated structure used for growing plants. It relies exclusively on solar heating. The plastic allows in sunlight, traps warm air and shields crops from the elements. Many have a passive ventilation system which mean on warm late fall and winter days, you'll find yourself having to exhaust the warm air. A high tunnel models have roll up sides and ends for added ventilation.

What can you grow in these structures without heat? Most of the cole crops such as cabbage and broccoli do well. Greens, lettuce, spinach, swiss chard do exceptional. Root crops such as

radishes, turnips, and carrots also thrive. However, warm season crops that need lots of sunlight and a lot of warmth will benefit from supplemental lights and heat.



Hoop houses can be any size. A smaller house can bank thermal energy using solar heating methods. This can be used to moderate the nighttime temperatures. Large greenhouses lose the thermal energy faster. The question for most gardeners is how big do you need it?

Most people with greenhouse structures will tell you to double the size you think you need because you can always use more room.

If you desire a hoop house, start looking at some existing ones in the local area to get some ideas. Shop around and look at the different features on kits and models. If you need help, give us a call at one of the Extension Centers list on the back of this newsletter.



Group News - What's Happening

September 2011

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p>Contact your local Extension Center if you have questions about any event on the calendar.</p>						
4	5	6	7	8	9	10
	Parkland MG, 6:30pm @ Courthouse Annex (3rd floor)	MG training - MAC, Parkhills Composting - MG Adv. Train., Ext. Center, Perryville, MO, 3-6pm. Poplar Bluff MG, 6:30 pm @ PB Ext. Center		Delta Area MG, 6 pm, Sikeston Library		
11	12	13	14	15	16	17
		MG training - MAC, Parkhills, MO Rain Gardening - MG Adv. Training, Ext. Center, Poplar Bluff, MO, 1pm—4pm. Fee: \$10		Cape Girardeau Co. MG, 7 pm, Cape Co. Ext. Center		
18	19	20	21	22	23	24
	Ste. Genevieve MG Meeting, 6:30pm, at the Ste. Genevieve Co. Ext. Center	MG training - MAC, Parkhills, MO			MG State Conference, Hannibal, MO	
25	26	27	28	29	30	
	Perry Co. MG meeting, 6:30 pm, Perry Co. Ext. Center	MG training - MAC, Parkhills, MO				

Upcoming Events

October

- 3 - Parkland MGs 1st Monday at 6:30pm, Farmington Courthouse Annex (3rd Floor)
- 4 - Poplar Bluff MGs 1st Tuesday at 6:30pm, Butler County Ext. Center
- MG Training continues @ Ste. Gen Ext Office 10/18 to 11/15
- 13 - Delta Area MGs 2nd Thursday at 7:00pm, Medical Arts Building, Sikeston, MO
- 17 - Ste. Genevieve MGs 3rd Monday, at Ste. Gen. County Ext. Center at 6:30pm.
- 20 - Cape Girardeau County MGs 3rd Thursday at Cape County Ext. Center at 7pm.
- 24 - Perry County MGs 4th Monday at the Perry County Ext. Center at 6:30pm.
- Bonsai MG Adv. Training. Farmington, MO Fee: \$20.00

November

- 1 - Poplar Bluff MGs 1st Tuesday at 6:30pm, Butler County Ext. Center
- 4 - MG Training continues @ MAC (Ste. Gen Ext Office 10/18 to 11/15)
- 7 - Parkland MGs 1st Monday at 6:30pm, Farmington Courthouse Annex (3rd Floor)
- 10 - Delta Area MGs 2nd Thursday at 7:00pm, Medical Arts Building, Sikeston, MO
- 17 - Cape Girardeau County MGs 3rd Thursday at Cape County Ext. Center at 7pm.
- 21 - Ste. Genevieve MGs 3rd Monday, at Ste. Gen. County Ext. Center at 6:30pm.
- 28 - Perry County MGs 4th Monday at the Perry County Ext. Center at 6:30pm.

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,
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Disclaimer: No special endorsement of mentioned products is intended, nor is criticism implied of similar products not mentioned.

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