



THE GARDEN SPADE



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

Plant of Merit - *Hellebores niger* 'Ivory Prince' by Sarah Denkler

The Plant of Merit program is a cooperative effort between the Missouri Botanical Garden, Powell Gardens, University of Missouri Extension, Missouri Landscape and Nursery Association, Illinois Green Industry Association and Mizzou Botanic Garden. The purpose is to select plants of outstanding quality and dependable performance for Missouri, central and southern Illinois and the Kansas City Area.

Criteria for selection include plants that are easy to grow and maintain, not invasive, resistant or tolerant to disease and insects, have outstanding ornamental value and are reasonably available.

The entire Plant of Merit list is found at: www.plantsofmerit.org. A link to the 2011 list can be found at: <http://extension.missouri.edu/butler/Master%20Gardener/2011%20Plant%20if%20Merit.pdf>

This month's Plant of Merit is appropriate for the month, *Helleborus niger* 'Ivory Prince' or commonly named Christmas or Lenten rose.

This perennial grows in zones 5-9 blooming in late winter. Flowers are creamy white to pink blooming on clumps of evergreen foliage. The plant prefers light to partial shade. Although sterile, plants can be propagated through division. The plants are disease and deer resistant.



Picture courtesy of Rainyside.com.

If fertilizer is needed, do so in the spring after blooms have died. Plants look great in mass but can be used as single clumps.



Photo from of Univ. of Mo Extension

December 2010

In this issue:

Plant of Merit	1
Growing Herbs Indoors	2
Master Gardener Hours Due!	2
December Gardening Calendar	3
Christmas Gift Ideas	3
Disease of the Month—Indoor Diseases	4
Repurpose, Reuse, Recycle - Pass It On	4
Trivia Crossword: Plant Propagation	5
A Book Review	5
Pest of the Month: White Flies	6
Christmas Tree Disposal	6
Group News - What's Happening!	7
Editor's Corner	8

UNIVERSITY OF MISSOURI
 Extension

University of Missouri, Lincoln University, U.S. Department of Agriculture & Local University Extension Councils Cooperating
EQUAL OPPORTUNITY/ADA INSTITUTIONS

Growing Herbs Indoors

By Katie Kammler

On dreary days in the wintertime it is nice to have indoor plants to brighten up your home. House plants always add to a home's décor but growing herbs indoors can be useful as well. In pioneer homes, herbs were used to cure illness and disease, dye fabric, and repel insects. Today they are increasing in popularity again for health benefits and for cooking. It also provides the opportunity to have a taste of warm summer days throughout the cold winter months.

The types of herbs that do the best indoors include chives, thyme, basil, parsley, rosemary, sage, oregano, and mints. Using them regularly, therefore keeping them trimmed back, will prevent flowering. Flowering will reduce the plants longevity. Trimming will also keep the plant from getting to leggy.

Meeting the light requirements of herbs is probably the biggest challenge to growing them indoors. They do best in a very sunny window that receives six to eight hours of direct sunlight each day. It is also necessary to rotate the plants occasionally to ensure uniform growth. If your home doesn't have enough natural light, fluorescent lights can be used. Place the herbs 6 to 12 inches from the bulb for 14 to 16 hours. As a general rule of thumb, plants need 2 hours of artificial light for every one hour of natural light.

Herbs need good drainage so a light commercial potting mix in clay pots works best. Herbs also prefer temperatures below 70 degrees. Avoid

locating plants near a heat source such as a heat vent, radiator, or stove. If the air is dry in your home, an easy way to increase the humidity around the plant is to place them on a tray of stones with water but do not allow the pots to sit in water. The humidity will promote good growth while keeping the foliage succulent and tasty. Occasional fertilizer is also helpful to keep your herbs in healthy condition.

Potted herbs can be taken outside in the spring and return indoors when the temperatures cool in the fall. Be sure to inspect them for insects before moving them into the house. This is an easy way of enjoying fresh herbs all winter long.

For more information, see MU Guide 6470, Growing Herbs at Home. It can be found on the web at <http://extension.missouri.edu/explorepdf/agguides/hort/g06470.pdf>



MASTER GARDENER HOURS ARE DUE!

As the Gardening season comes to a close, **Master Gardener Volunteer Hours** also begin to slow up. If you have already completed your volunteer hours for the year, please send them to your local Master Gardener Coordinator. We accept them via mail, email, phone, and fax. Don't forget, you can also enter hours online. <http://report.missourimastergardener.com/>

December Gardening Calendar

By Donna Aufdenberg

Outdoor Plants and Ornamentals

- Be sure the root zones of azaleas and rhododendrons are thoroughly mulched. Any organic material will do but mulches made from oak leaves, shredded oak bark, or pine needles are preferred.
- Hollies may be trimmed now and the prunings used in holiday decorations.
- If stored bulbs start to shrivel, they are too dry. Place them in a container with potting soil, peat moss, or sawdust to stop the loss of water.
- Mulch perennial borders after ground freezes to a depth of 2 to 3 inches.
- Check dahlia tubers and gladiolus corms in storage. If they are sprouting, place them in a cooler spot. Moldy or damaged roots must be removed and discarded. Molding indicates over-moist conditions.



Indoor Plants

- Lining shelves or window sills with aluminum foil reflects light and provides extra light for house plants
- On cold nights, move houseplants back from icy windows to prevent chilling injury.
- Overwintering geraniums like bright light and cool temperatures. Keep soils on the dry side.
- Water houseplants with tepid water. Cold tap water may shock plants.

Vegetable Gardening

- Save cylinders from holiday wrapping paper for making biodegradable cutworm collars. Cut cylinders into 3-inch tubes to fit over transplants.

Fruits and Nuts

- Leave a bare circle, one foot wide, around fruit tree trunks when spreading mulch so the mice won't nest there.
- Wrap the trunks of fruit trees to prevent rabbit damage.

Turfgrass

- Do filling and grading around the yard. The loose soil will settle during the cold months.

Miscellaneous

- Clean and oil all garden hand tools before storing for winter.
- All power equipment should be winterized before storage.
- If you feed rabbits corn or alfalfa, they may leave fruit trees unharmed.

Christmas Gift Ideas for the Gardener on Your List

- ☼ Garden Magazine Subscription
- ☼ Hand Lotion and Nail Brush
- ☼ Garden Clogs or Shoes
- ☼ Garden Sitting Bench
- ☼ Gift Certificate for an hour of your help
- ☼ A Potting Bench with all the supplies for a jump start on spring!
- ☼ A Great Flower Pot (don't forget the soil to put in it!)
- ☼ A Great Garden Book that you have enjoyed
- ☼ A Rain Barrel
- ☼ Garden Tool Caddy Filled with Gadgets for the Garden



Disease of the Month - Indoor Diseases

by Sarah Denkler

While most house plant issues are physical, there are diseases that can cause problems as well. Diseases are caused by bacteria, fungi or viruses.

If your plant has a virus it has arrived complements of a piercing insect and will continue to spread. Viral infections have no control so any infected plant needs to be destroyed.

Plants infected with a bacteria are rare but if they do occur it is usually through infected water that has entered through a wound in the plant. Infected plants should be destroyed as there is no cure for bacterial infection.

Common fungal infections on houseplants can include Root Rot, Damping Off, Blackleg, Basal Rot, Powdery Mildew, Sooty Mold and Leaf Spot.

Root rot is caused from cold water or air, high humidity and over fertilization.

Damping off attacks seedlings that are kept moist. This fungus usually comes in through infected soil or from infected pots or tools. Sanitation is one method used to reduce this disease. Another is to allow seedlings to dry out between watering.

Basal rot fungi infect the inner pathways of the stem, plugging up the system and causing wilt or death. This is often spread from previously infected plants that are brought into the house.

Powdery Mildew is the same indoor or out. It is a fungal infection of leaf tissue that appears as a white



Photo courtesy of Clemson cooperative extension.

powder. Plants that are too close together with poor air circulation in high humidity where spores can find their way to leaves through wind can catch the disease. High nitrogen fertilizer will aggravate the problem. Inspect plants carefully and remove any infected tissue for proper disposal.

Sooty Mold is a common problem on houseplants that are already plagued by aphids, thrips, scale or mealy bugs. All insects that pierce leaf tissue, deposit sticky sap on stems and leaves. Sooty mold then develops on these deposits. The black color of sooty mold may be the first indication of a problem if careful inspection is not a common practice for the home owner. The insect population that feeds on the plant sap must be eliminated before disposal of infected tissue.

Leaf Spot may occur on plants that are already weak from other diseases, insects or physical problems. A change in temperature may increase the occurrence of leaf spot fungus.

Other fungal diseases are more likely to be found when plants are kept outdoors. These include Downy Mildew, Gray Mold and Rust.

Repurpose, Reuse, Recycle - Pass It On

By Barb Gray

Don't put away old tomato cages. Turn them upside-down to form a cone shape and cover with Christmas lights (the netted type). These make pretty tree shapes for outside decoration. Evergreen stems can also be wrapped around or tied to the metal cage to give your decoration a green look during the day. Use an old satellite dish (a small one) for a bird feeder or a bird bath. Holes will have to be caulked and the dish will need to be placed on a post or deck rail or even a tomato cage.

Trivia Crossword: Plant Propagation

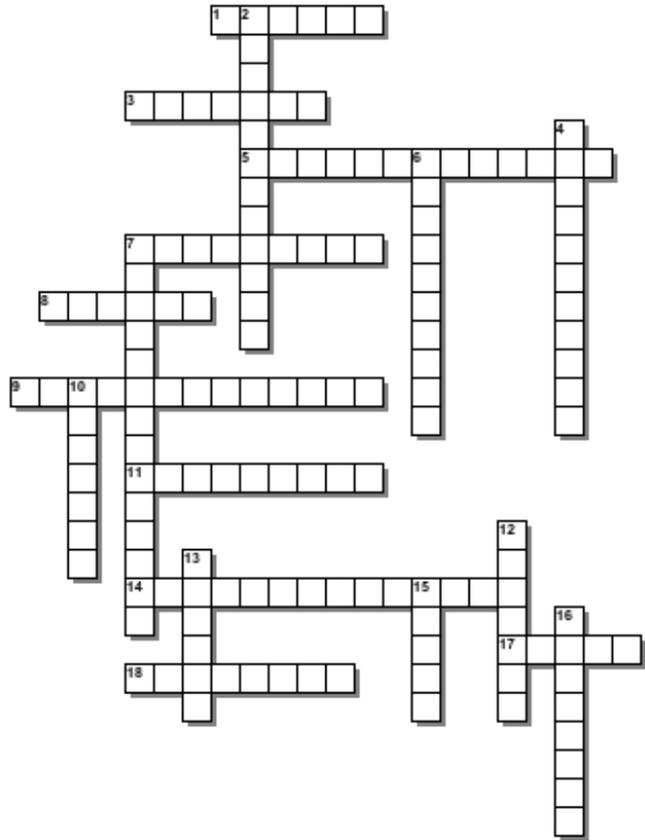
by Donna Aufdenberg

Across

- 1 - Formation of cells on cuttings prior to root growth.
3 - Mutation at a growing point on a plant which gives a plant two different genotypes.
5 - Multiplication using plant tissue in a sterile environment.
7 - Clean, Sanitize
8 - Offspring that does not reproduce true to parent plants.
9 - Scratching the seed coat to induce germination.
11 - Plant hormone that promotes branching.
14 - Heirloom, non-hybrid seed.
17 - Exact genetic copy of parent plant.
18 - Joining separate plant parts together so they form a union and grow together to make one plant.

Down

- 2 - New plant organ arising at an "unexpected" location on the plant.
4 - Sexual and Asexual Multiplication.
6 - Seed leaves
7 - Exposing seed to cool, moist conditions to induce germination.
10 - Using vegetative parts to multiply plants.
12 - First root formation of the plant emerging



from the seed.

13 - Fertilization occurs and seeds are produced.

15 - Plant hormone that promotes rooting.

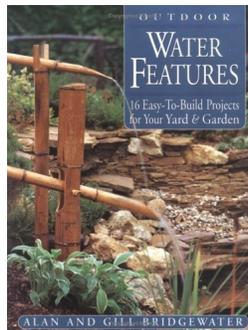
16 - Condition preventing seed germination.

A Book Review

by Jamie Koehler, Master Gardener

The Book: Outdoor Water Features 16 Easy to Build Projects for Your Yard and Garden By Alan and Bill Bridgewater

The directions for the projects in this book are indeed easy to follow with lots of drawings and photographs. The projects range from simple container bogs to more complex ponds. Most of them could indeed be done by any of us in a single weekend; a couple such as the ponds will require two. Some of the projects are pretty creative, for instance what have you been doing with all your empty wine bottles? Hopefully recycling them but



did you realize they would make a lovely fountain? Check out page 62 and pour yourself another glass

of zinfandel! The book of course has directions for a classic Japanese Deer Scarer (shishiodoshi). If you decide to add this beautiful symbol of balance to your garden I happen to know where you can get all the free bamboo you will need. Just call.

Pest of the Month: White Flies

by Katie Kammler

I enjoy having tropical hibiscus in the summertime so I trim them and bring them in for the winter. Unfortunately, it also seems like

I also bring in insects with them! The only insect problem I have with them outdoors is Japanese beetles but when I bring them in, I usually end up with aphids. This year it is whiteflies. Whiteflies like a variety of plants, indoors and out and can be hard to control because they hide on the underside of leaves.

Whiteflies are about 1/10 to 1/16 of an inch long and look like tiny moths. They damage plants by sucking out plant juices and because large amounts of sap can be removed, they can cause plants to weaken and grow poorly. Honeydew is



excreted and when it covers leaf surfaces, it acts as a perfect growth medium for a black, sooty mold, leading to poor photosynthesis.

Check the underside of your plant leaves for infestations or shake leaves to see if any fly up. Sticky traps, vacuuming and over the counter insecticides are effective control measures although plan on repeat applications to achieve control. I am waging war on my population as I do not want them spreading to the rest of my house plants!

For more information, check out

MU Guide 7273 Least-toxic Control Methods to Manage Indoor Plant Pests <http://extension.missouri.edu/explorepdf/agguides/pests/g07273.pdf>

Christmas Tree Disposal

by Sarah Denkler

Plant material can not be disposed of using regular trash pick-up so other useful options must be explored. Check with local churches or boy scouts to see if they have a disposal program in place.

If you are lucky enough to have a pond or know someone who does you can help to create fish habitat by tossing your tree overboard tied to a heavy block or weight to keep it down.

Trees can be shredded to create mulch that can be used to reduce weeds and hold in moisture. Evergreen trees will create a slightly acidic mulch that can be used on dogwoods, azalea and blueberry to help maintain acidic soil. If you

do not have a shredder of your own many towns will have a yard waste disposal area or compost facility that will shred plant material for spring use.

Before disposing of your tree make sure you remove all ornaments, lights and tinsel from the tree. These can be hard on a shredder and can cause problems for wildlife if they are ingested.

Do not burn your tree in a fireplace without allowing it to dry out first. Fresh, "green" wood can cause a build-up of soot in the chimney flu that can lead to house fires.





Group News - What's Happening

December 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<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>			1	2	3	4
5	6 Parkland MG, 6:30pm @ Courthouse Annex (3rd floor)	7 Poplar Bluff MG, 6:30 pm @ Holy Cross Episcopal Church	8	9 Delta Area MG, 7 pm, Medical Arts Bldg, Sikeston	10	11 Cape Girardeau Co. MG Christmas Party, 5 pm, Shadow Rest Ministries; Bring Snack or Finger Food and \$5 gift (optional).
12	13	14	15	16	17	18
19	20 Ste. Genevieve MG Meet- ing, 6:30pm, at the Ste. Genevieve Co. Ext. Center	21	22	23	24	25
26	27 Perry Co. MG meeting, 6:30 pm, Perry Co. Ext. Center	28	29	30	31	

Upcoming Events....

JANUARY

- 3 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
- 4 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM at the Butler County Extension Center
- 13 - Delta Area Master Gardeners meet on the second Thursday each month at 7:00PM at the Medical Arts Building in Sikeston, MO (808 E. Wakefield Ave.)
- 17 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 20 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
- 24 - Perry County Master Gardener Meeting is held every Fourth Monday of each month at the Perry County Extension Center at 6:30PM

FEBRUARY

- 1 - Poplar Bluff Master Gardeners meet on the first Tuesday each month at 6:30PM at the Butler County Extension Center
- 7 - Parkland Master Gardeners meet on the first Monday each month at 6:30PM at the Farmington Courthouse Annex (Third Floor)
- 10 - Delta Area Master Gardeners meet on the second Thursday each month at 7:00PM at the Medical Arts Building in Sikeston, MO (808 E. Wakefield Ave.)
- 17 - Master Gardener Training in Poplar Bluff from 4:30pm to 6:30pm at the Butler County Extension Center
- 17 - Cape Girardeau County Master Gardener Meeting is held every Third Thursday of each month at the Cape County Extension Center at 7PM
- 21 - Ste. Genevieve Master Gardener Meeting is held every Third Monday of each month at the Ste. Genevieve County Extension Center at 6:30PM
- 24 - Master Gardener Training in Poplar Bluff from 4:30pm to 6:30pm at the Butler

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.

Editors:

Katie Kammler, Plant Science Specialist
255 Market St., Ste. Genevieve, MO 63670
573-883-3548

Sarah Denkler, Horticulture Specialist
222 North Broadway Street, Poplar Bluff, MO 63901
573-686-8064

Donna Aufdenberg, Horticulture Specialist
304 High Street, PO Box 19, Marble Hill, MO 63764
573-238-2420

UNIVERSITY OF MISSOURI
 **Extension**

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

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

UNIVERSITY OF MISSOURI
 **Extension**
Master Gardener

Butler County Extension
222 North Broadway
Poplar Bluff, MO 63901
573-686-8064

December 2010 Garden Spade



Time To Turn In Your Volunteer Hours For 2010!!
The Master Gardener Hour Reporting form can be found at <http://mg.missouri.edu/mgforms.htm>