



High on the Desert Cochise County Master Gardener Newsletter

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The University of Arizona and U.S. Department of Agriculture Cooperating

LUNAR GARDENING aka gardening and farming by the moon

I was introduced to lunar gardening in 2003 and after gardening according to the moon's phase and sign for two seasons I am hooked! What I enjoy about lunar gardening is not only do I get better yield and tastier food crops but that there is a phase for each activity. Therefore chores are paced and the gardener gets into 'the groove' working with the ebbs and flows of the moon and the sun—try it for a year and let me know what you think.

The planting guide I use is *Llewellyn's Moon Sign Book*. This book uses the geocentric system for determining the moon sign positions (some books use the heliocentric system which is incorrect for moon planting). A good introduction to lunar gardening can be found in Louise Riotte's book *Astrological Gardening: the ancient wisdom of successful planting and harvesting by the stars*.

I start most of my vegetable seeds, herbs, and annual flowers from seed. I plant seeds into APS systems during the appropriate moon phase/sign and then transplant them into newspaper pots during the next favorable moon phase/sign (or into plastic pots if they are going to be sold at market). Their final transplant into the garden occurs during the next moon phase/sign.

THE MOON'S PHASES

FIRST QUARTER: Plant annuals that produce their yield above the ground, are generally leafy, and produce their seed outside the fruit. Examples are asparagus, broccoli, cabbage, cauliflower, lettuce, and spinach. Fertilize (chemical) during the 1st or 2nd quarter when the moon is in a water sign.

SECOND QUARTER: Plant annuals that produce above their yield above the ground and produce their seed inside the fruit. Examples are beans, eggplant and peppers, melons, pumpkins, squash, and tomatoes. Fertilize (chemical) during the 1st or 2nd quarter when the moon is in a water sign.

THIRD QUARTER: Plant biennials, perennials, bulbs, trees, shrubs, berries, grapes, strawberries, and root vegetables. Fertilize (organic) during the 3rd or 4th quarter when the moon is in a water sign.

FOURTH QUARTER: Cultivate the soil, weed the garden, employ pest management, and remove unwanted plants especially when the moon is in the barren signs of Aries, Aquarius, Gemini, Leo, Sagittarius and Virgo. Fertilize (organic) during the 3rd or 4th quarter when the moon is in a water sign.

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Cochise County Cooperative Extension

www.ag.arizona.edu/cochise/mg/

1140 N. Colombo, Sierra Vista, AZ 85635

(520) 458-8278, Ext. 2141

450 Haskell, Willcox, AZ 85643

(520) 384-3594

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AIR SIGNS

MOON IN GEMINI: barren, dry, airy masculine sign used for garden maintenance chores

MOON IN LIBRA: semi-fruitful, moist airy feminine sign used for planting and good for producing good root and pulp growth, good sign for producing beautiful flowers

MOON IN AQUARIUS: barren, dry, airy masculine sign used for garden maintenance chores

FIRE SIGNS

MOON IN ARIES: barren, dry, fiery masculine sign used for garden maintenance chores

MOON IN LEO: barren, dry, fiery masculine sign used for garden maintenance chores

MOON IN SAGITTARIUS: barren, dry, fiery masculine sign used for planting onions and cultivation

EARTH SIGNS

MOON IN TAURUS: moist, productive, earthy feminine sign used for planting when hardness (drought) is important

MOON IN VIRGO: barren, moist earthy feminine sign used for garden maintenance chores, vines planted during this moon produces vigorous vines

MOON IN CAPRICORN: dry, productive, earthy feminine sign used for planting tubers, good sign for drought-disease resistant

WATER SIGNS

MOON IN CANCER: moist, fruitful, watery feminine sign used for planting and irrigation, vines planted during this moon will produce medium vines

MOON IN SCORPIO: very fruitful, moist, watery feminine sign used for planting, good for vine growth (produces long vines) and sturdiness

MOON IN PISCES: moist, very fruitful, watery feminine sign used for

planting and good for root growth, vines planted during this moon produces short vines with good fruit

July Lunar planting calendar

July 2nd 1:26 pm - 5th 12:07 am ~ 4th qtr Gemini ~ cultivate; destroy weeds and pests; harvest fruits and root crops; trim/prune to retard growth

July 5th 12:07 am - 6th 5:02 am ~ 4th qtr Cancer ~ plant perennials, flowers, shrubs, and trees; prune; irrigate; fertilize (organic)

July 6th 5:02 am - 7th 12:11 pm ~ 1st qtr Cancer ~ irrigate; plant corn, cucumbers, sunflowers, artichokes; trim/prune to increase plant growth

July 12th 1:09 pm - 15th 10:51 pm ~ 1st and 2nd qtr Libra ~ plant annuals for beauty and fragrance; trim/prune to increase plant growth

July 15th 10:51 pm - 17th 4:35 am ~ 2nd qtr Scorpio ~ irrigate; plant beans, cantaloupe, eggplant, herbs, peppers/chilies, muskmelon, pumpkin, squash, tomato, watermelon, zucchini, grains; trim/prune to increase plant growth

July 21st 5:55 am - 23rd 5:12 am ~ 3rd qtr Aquarius ~ cultivate; destroy weeds and pests; harvest fruits and root crops; trim/prune to retard growth

July 23rd 5:12 am - 25th 6:23 am ~ 3rd qtr Pisces ~ plant perennials, flowers, shrubs, and trees; prune; irrigate; fertilize (organic)

July 25th 6:23 am - 27th 10:43 am ~ 3rd qtr Aries ~ cultivate; destroy weeds and pests; harvest fruits and root crops; trim/prune to retard growth

July 27th 10:54 am - 29th 7:02 pm ~ 3rd and 4th qtr Taurus ~ plant potatoes; trim/prune to retard growth

July 29th 7:02 pm - August 1 5:52 am ~ 4th qtr Gemini ~ cultivate; destroy weeds and pests; harvest fruits and root crops; trim/prune to retard growth

Want more info? A lunar planting guide for vegetables, fruits, berries and ornamentals can be found at www.outb.com/users/planthoe/lunargardening.htm

Cheri Melton, Master Gardener

High Desert Conference Master Gardener Advanced Training Sierra Vista, Arizona

Wow! would be a one word description for this delightful and informative event. Our host county of Cochise has been entertaining Master Gardeners for 12 years, and doing a splendid job. Everyone should take in this conference at least once. Now for the education!

1. Olla irrigation (irrigation using a clay jar or pitcher). This is a very ancient process.
2. Straw bale construction as raised beds for your garden.
3. Ocotillo cuttings need to be taken in the summer. Have a smooth cutting edge and dust with sulfur. Rooting typically occurs in 3 weeks.
4. Plant Diagnostic Network. Their mission is to protect agriculture. This network will provide a cohesive, distributed system to quickly detect pests and pathogens that have been introduced into agricultural and natural ecosystems, identify them, and report them to appropriate decision makers. The first responders are, among others, Master Gardeners.
5. Container plants that are tropical in not so tropical places. Make these plants mobile...so we can keep them warm when the temps drop in our winter months. There are even commercial heating cables to warm the soil during cold periods.

So there you have it...five tips from Sierra Vista. A bonus was all the goodies in the goody bag, tons of drawings for prizes, and excellent food from day one. Consider attending this one...it is worth the trip.

(Reprinted from *Texas Cooperative Extension Master Gardener Almanac, 2005*, by Connie Walsh, Happy Traveler)

July Reminders

- ◆ Keep the pests under control
- ◆ You can still plant something
- ◆ Keep watering!

• Important Notice! •

Attached to the newsletter this month is a sign-up sheet to update our mailing list. The newsletter is about to become an “e-newsletter” so be sure to include your e-mail address if you have one. When the newsletter has been posted you will receive an e-mail with a link to the newsletter in the Master Gardener Web Site. If you do not have an e-mail address, the newsletter will continue to be mailed to you. We expect to save hundreds of dollars each month on postage. Please return the sign-up sheet by the date listed. We appreciate all of our readers and hope to have you continue with us.

In a Desert Garden

Agastache –
Hyssop or Hummingbird Mint

Last year I planted several varieties of Agastache in my little garden and I really like the plants and so do my hummingbirds and butterflies. Several species of these wonderful herbs are native to the southwestern regions of the U.S. and the northern part of Mexico. Some species are found in Europe and Asia. Agastache blooms in summer and most have aromatic foliage that can be used in teas. The flowers come in an array of colors, blue, red, pink, purple and even bright orange. Most varieties take moderate watering, but for the plant to look its best and to keep it blooming, a little more water in a dry spell is needed. If deadheaded the plants will rebloom and some will self-seed freely. The flowers are tubular and nectar rich. Species from the Southwest and Mexico are more drought tolerant and need very good drainage. They like a gravel mulch to keep their crowns dry. A bark or compost mulch is too rich and too moist and can make the crowns rot. The most commonly grown and available plant is *Agastache Cana*—Texas Hummingbird Mint. Plants are up to 3 feet tall and have raspberry-red flowers. *A. barberi* is a native to Arizona and New Mexico, grows 2 feet tall and wide and has pink-purple flowers. *A. foeniculum*, a species from Central America grows to 3 feet tall with lilac-blue flowers and foliage that is anise-licorice scented. It is also



Agastache rupestris

called Anise Hyssop. *A. mexicana* can grow to 5 feet tall and has pink flowers, also called Giant Lemon Hyssop because of its lemon-scented leaves that can be used in teas. Another native to Southern Arizona is *A. rupestris*—Licorice or Sunset Hyssop. This plant is fragrant and has gray-green leaves and orange flowers. The last Agastache you will find in my garden is *A. rugosa*—Korean Hummingbird Mint from Asia with purple-blue flowers. All these plants look good interplanted with penstemons and lavender and if your soil can support penstemons and lavender, you can grow Agastache.

Angel Rutherford, Master Gardener

Cuttings 'N' Clippings

* The next CCMGA meeting is 5:00 p.m. Thursday, August 4, 2005 at the University of Arizona South campus, Room 503. There will not be a meeting in July.

* The free *Water Wise* program on Saturday, July 9 from 9:00 to Noon is a *Rain Water Harvesting Tour* visiting homes that take advantage of rainwater harvesting. For more information and a free map contact Cado Daily at the Cooperative Extension, Ext. 2139.

* Rainwater harvesting will be featured at the Bisbee Farmers Market on July 2. Rain barrels will be for sale. For information call Valerie at 378-2973.

* CCMGA members and associates—are you missing two lawn chairs? Call 458-0272 if you forgot to take them home from the potluck.

Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

The Virtual Gardener—Cochise County Library Resources

How would you like to have access on your computer to the full text of up to two decades of articles from nearly 6,000 periodicals—popular magazines, newspapers, technical journals, and trade journals—and all for free? Free, that is, if you don't count the tax dollars you've already paid to provide this service. This month I'm going to discuss how you can unlock a treasure trove of information from Cochise County Public Library system. If you are not a resident of Cochise County, check with your local system to see if they offer a similar service.

If you are a resident of Cochise County all you need is a library card and a four-digit personal identification number (PIN). I suspect most people, like me, get a library card but don't initially ask for a PIN. To get a PIN all you need to do is go to the library and ask for it. The process takes less than a minute.

I started using the Sierra Vista Public Library Web site (<http://www.ci.sierra-vista.az.us/svlibrary/>) to check the card catalog for books I was interested in checking out. That saved me a trip to the library if the book I wanted was already checked out or not held by the library. By the way, the Sierra Vista Library Web site allows you to search the holdings of all the branch libraries in the county, not just the Sierra Vista branch. To get to the catalog search page, click on the link labeled *Library Catalog and Online Databases*.

While looking up a book in the catalog, I noticed a hyperlink labeled *Online Databases* at the top of the Web page. When I



clicked the link, I was asked for my library card number and a PIN. My curiosity aroused, I got a PIN on my next trip to the library and checked out what these databases are. There are four to choose from: *Wilson Select Plus*, *ABI Inform*, *Learn a Test*, and *Arizona Sanborn Maps*. The first two databases contain the articles from periodicals. I'll let you discover the contents of the other two for yourself.

The Wilson Select Plus collection contains over 1900 magazines, academic journals, and professional magazines from 1994 to the present. Of general interest to gardeners, are *Horticulture* magazine (1598 articles), *Organic Gardening* (144 articles), and *Sunset* magazine (3341 articles). For the more technically minded there are the *American Journal of Botany* (1355 articles), the *Botanical Review* (100 articles), *Soil Science* (632 articles), and many more.

The ABI collection is more business oriented than the Wilson Select collection but you may find information of interest in one of the trade journals in the green industry such as *Horticulture*

Week or Yard and Garden. This database also contains articles from a large number of newspapers. I found articles of interest to gardeners in the *Washington Post* and *Christian Science Monitor*.

Once you click on the link to access one of the databases, you are asked to select which branch library you have an account with and provide your library card number and PIN. Most browsers these days will remember the card number and PIN for you.

The search engines for these databases are not as sophisticated as what you might be used to with Google or other Web search engines. You can search on keyword, author, title, source, year, and limit to full text (a small number of periodicals only allow abstracts to be displayed). Help buttons are located next to each of the search term boxes to help you define your search criteria. One thing to remember, however, is that unlike Web search engines, the database search engines do not search for text inside an article. The keyword parameter matches words in the titles, subjects, and "notes" about the article. If you are interested in only one periodical, you can search just that magazine or journal for all articles or for just articles of a specific year. If you're not in a hurry to find something specific, browsing the titles of articles can turn up some interesting topics.

If you feel in the mood for a little surfing, get yourself a library card and a PIN and check out the Wilson Select and ABI databases.

Until next time, happy surfing!

Gary A. Gruenhagen,
Master Gardener
gruenha@sinosa.com

The Agent's Observations

Q There are billions and billions of small brown bugs covering up my plants! What are these insects and where do they come from?

A Very high densities of adult false chinch bugs, *Nysius raphanus*, are present on plants currently. Mature insects are light brown or tan and less than a 1/4 inch long. Many adults are crawling over the plants, with some "swarming" activity observed. Adults and nymphs have piercing-sucking mouthparts, and do not appear to leave any distinguishing marks on the foliage. However, leaves on infested plants, and especially on young plants, turn brown and stems of plants may wilt because of the large amount of sap being withdrawn. The recent wet winter increased vegetative growth, including 'London rocket' mustard plants. Because of the increased plant material to feed on and produce young, populations of the false chinch bugs have exploded. Such population growth is cyclic and will decrease in several weeks.



False Chinch Bug
Nysius raphanus

Control: To control false chinch bugs applications of insecticides such as soapy water, malathion, carbaryl (Sevin) or a synthetic pyrethroid (*i.e.* cyfluthrin, esfenvalerate, permethrin) will slow these insects down. Several treatments may be necessary. Follow

all label directions when applying pesticides. Placing window screen or Reemay type fabric over plants, to exclude the insects, is another control method that does not involve the use of an insecticide.

Q The leaves of my apple tree and roses are drying up. The leaves have a white-grayish fuzzy material coating them. What is this and what can I do?

A Powdery mildew is affecting your apple and roses. Powdery mildews are common, widespread, and occur on many crop and ornamental plants. The total loss by these organisms each year probably surpass the losses caused by any other single type of plant disease. There are many species of powdery mildew. Your apple tree was probably infected by *Podosphaera leucotricha* and your roses by *Spaerotheca pannosa*. These fungi are common and cause serious problems in both cool and warm humid areas, but are even more of a problem in warm dry climates like Arizona. Powdery mildew spores (fungal "seeds"), can be released, germinate, and cause infection when the relative humidity is fairly high, but no water is on plant surfaces. Wet weather during spring and the monsoon aid in the growth and spread of powdery mildew. Once infection has begun the fungus spreads on plant surfaces regardless of the moisture conditions in the atmosphere. These organisms send haustoria (feeding organs), through the epidermal cells

of plants to obtain nutrients. Powdery mildews are obligate parasites; meaning they must grow on their specific hosts and cannot be cultured on artificially growing media in a laboratory. Powdery mildew seldom if ever kills its host but utilizes plant nutrients, reduce photosynthesis, increase respiration and transpiration, impairs growth, and can reduce yields as much as 20-40 percent.

Control: When planting apples or roses or other susceptible plants place them in a location with good sunlight and air flow, *i.e.* not up against a building. Dormant prune properly to open them up to ensure air flow through the plant. A rose or euonymus shrub planted on the shady north side of a house will surely have powdery mildew problems. Many new rose varieties are resistant to powdery mildew. This resistance will help, but may not completely eliminate the need for chemical control. Chemical controls include spraying or dusting sulfur and/or spraying copper containing products. Care must be taken not to apply sulfur on hot days because plant tissue can be burned. Reports have suggested that spraying applications of water and baking soda can reduce powdery mildew. Other chemical controls include chlorothalonil (Bravo), triadimefon (Bayleton) and triforine (Funginex). **Source:** *Plant Pathology*, George N. Agrios. Third Edition, 1988, pp. 337-342.

Robert E. Call
Extension Agent, Horticulture

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The University of Arizona
Cooperative Extension
Cochise County
450 S. Haskell Avenue
Willcox, AZ 85643-2790

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Garden Tip 9463

If you like cactus—I mean if you REALLY like cactus—here’s a tip for you.

Not too long ago I was in Sonoita and bought a Texas Rainbow cactus (*Echinocereus pectinatus*) from Jim Koweek at his Diamond JK Nursery. Being properly cautious with this prickly plant, Jim looped a garden hose around it to pick it up, but when I got home the garden hose was a long ways away and I didn’t feel like dragging it over to where I wanted to plant the cactus.

What to do? The kitchen tongs I normally use to handle cactus were just not big enough for this plant. So I invented the Field Expedient Cactus Handler (FECH). Here’s how you can make one for yourself.

All you need is a short length of half-inch PVC pipe—my piece was about 15 inches long—and a length of quarter-inch spaghetti tubing—5 feet will do nicely. The exact measurements are not critical. Now fold the length of spaghetti tubing in half and shove it down the length of PVC pipe so that there is a loop sticking out of one end of the pipe and two cut ends of spaghetti tubing sticking out of the other end. To finish the project, tie the two cut ends of the spaghetti tubing into a knot to keep it from slipping back through the pipe. Voilà—your FECH is complete!

Just in case you don’t immediately grasp the concept of using this piece of high-tech equipment, here’s how. Grab the pipe with one hand and using the other pull the

loop end of the spaghetti tubing out of the end of the pipe as far as it will go. (This is where the knot in the end of the tubing comes in handy!) Now for the tricky part. CAREFULLY place the loop around the cactus you want to pick up, and firmly grasping the pipe with your hand, snug up the loop around the cactus by pulling on the knotted end of the spaghetti tube with your other hand. By maintaining the tension on the spaghetti tubing you can now use the PVC pipe as a handle to safely carry the cactus to where you want to plant it and hold it in place while you backfill the planting hole.

That’s it for now. What do you think about a two-man version of the FECH for handling saguaros? I’m working on it! ; -)