

Graham County Gardening Newsletter

May 2006

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Water Wise Yard Audit Guide for Resource Conservation

After walking around your yard as recommended in the April Newsletter **Water Wise Yard Audit** and checking recommendations, the next step is to look at alternatives for reducing the amount of water you now use.

Check those you plan to implement.

____ **Reduce the size of your lawn.** A 1,000 square foot lawn (25 feet by 40 feet) will consume over 30,000 gallons of water a year.

____ Create desert oasis by concentrating your water in a small lawn, flower and/or vegetable garden. Zone the rest of your landscape for low water-use by planting native vegetation. This type of landscape design is called **xeriscape**.

____ Replace high water use plants with native and other **low water use plants**. Before buying any plant, ask about its water needs. For further information on water wise landscape design and a list of low water-use plants well

suited to Graham county, ask for the bulletin “**Water Wise.**”

____ **Evaluate your irrigation schedule.** During hot months, water early in the morning to reduce evaporation loss from sun and wind. An infrequent, well-timed deep soaking is more efficient and better for plants than frequent, lighter waterings. **What is deep soaking?** Watering down to the roots, and a little bit more to carry any salt deposits below the root zone. In the case of mature trees, it is 24-28 inches. For shrubs, it’s 12 – 18 inches. For lawns, flowers



and vegetables, twelve inches is deep enough. Using a clock and the prescribed soil probe, monitor how quickly it takes to soak the plant’s root zone. Once you have determined how long it takes to fill the root zone with water using your present irrigation method, time your future applications to ap-

ply the same amount of water whenever you irrigate.

____ Install a digital electronic controller, if you don’t already have one. Change your controller at least monthly so your application rate reflects seasonal demands. Don’t set it and forget it; make your controller work for you. If you have an irrigation system on an automatic timer, turn it off during rainy periods.

____ Install a **drip irrigation** system, perforated soaker hose or bubbler for trees and shrubs and a **timed sprinkler system** for your lawn. A drip system can be 90% efficient in getting water to where it is needed, using 50 to 75% less water than other methods. (continued in page 2)

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Water Wise Yard Audit (cont. from page 1)

_____If you water by hand, install a **faucet timer**. This will prevent accidentally over-watering, with runoff flowing into the street, etc.

_____ **Mulch** around plantings to reduce evaporation loss and weed growth. Put down landscape fabric and/or 2 to 4 inches of organic mulch or crushed rock. Avoid using plastic. If black plastic is already present, poke holes through it with a pitchfork or other tool around the drip line of the plants to allow water to enter the ground rather than run off.

_____Increase the water retaining abilities of the soil by annual additions of mature compost or other humus.

_____Aerate your lawn every 2 to 3 years for better water penetration and increased root and shoot growth.

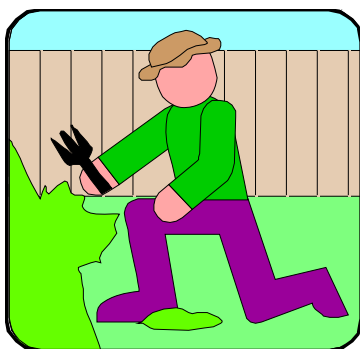
_____ **Raise your mower height** to 1 to 2 and 1/2 inches for Bermuda and to 2 and 1/2 to 3 inches for fescue and blue grass type lawns to reduce water loss through evaporation. No more than one-third of the grass height should be removed with any one mowing.

_____During the drier summer months, **use less fertilizer**. Your plants will still prosper, but their water needs will be reduced. Apply iron to make the lawn green when the turf is already dense.

_____Wash vehicles using a bucket of soapy water and a hose nozzle that shuts off when not in use. This can save up to 180 gallons per wash. Drive out on your lawn to wash your car so the water irrigates your lawn.

Source: UA Graham County Cooperative Extension, Gila Resources Utilities, Coronado R.

C. & D., San Carlos/Safford/Duncan Watershed. Funded by ADWR Watershed Initiative Program. Prepared by Douglas Dunn, Rob Call, Patricia Waterfall, Susan Pater, Kim McReynolds and Cado Daily, U of A Cooperative Extension. Modified by Lee Clark and Sue Martin.



Meet Master Gardener, Marilyn Weaver

Marilyn has lived most of her life in Kansas where basically all one had to do was throw out a seed and it would grow. She has lived in several other states observing gardening techniques, now living in Bonita, Arizona gardening is different! She took the Master Gardening Class and became a Master Gardener in 1999—currently Association President. She gardens in the open desert using container gardening, fencing and raised beds, and soaker hose watering systems. She harvests and plants seeds of wildflowers. “Unlike the explosive show of colorful plant life in wetter climates, I’ve learned to appreciate the small and unobtrusive signs of color and life.” She follows her grandma’s advice: “Bloom where you are planted.”

Companion Planting

By Marilyn Weaver

Companion planting is an organic gardening technique using a system based on diversity in the garden where a given species benefits from characteristics of another. Tomatoes, for example, are thought to be protected from certain insects by the odor of marigolds.

Some vegetables, flowers and herbs protect and nurture other plants when grown next to each other. Rather than planting segregated rows and plots of each vegetable, intersperse them to take advantage of their natural relationships.

There are four basic ways gardens can benefit from companion planting: companion plants can repel insects, attract good bugs, provide nourishment, and provide shade.

Many pests locate their next meal from the scent a plant emits; therefore strong smelling plants may confuse pests, keeping them away from their favorite meal. Planting the garden perimeter with garlic and marigolds may help repel aphids and beetles.

Some plants contain phytotoxins that will sicken or kill other pests. Flies, mosquitoes, spider mites and Mexican bean beetles may become ill or die when they ingest mustard oils found in cabbage and similar plants. As a result, cabbage makes good companion plants for beans. Conversely, flea beetles love cabbage and cauliflower but (continued on page 3)

Companion Planting (cont. from page 2)

don't bother the sticky hairy leaves of tomatoes. By planting the two vegetables together, the beetles should stop bothering the cabbage and cauliflower.

Some plants can create a physical barrier between the critter and the plant it wants to eat. For example, if raccoons are invading your corn, surround it with a scratchy barrier of squash vines.

Catnip repels a host of insect pests, but rather than planting it in your garden (it can be very invasive), grow it outside the

garden where it can be cut and used as mulch. Other invasive plants that have repellent effects, like tansy, can be made into a tea and sprayed on plants to repel squash bugs.

Additional repellent plants that might prove effective are: leeks, onions, rosemary, parsley, tomatoes, geraniums, petunias, southernwood and nasturtiums. A Washington State University study indicated sagebrush turns on pest defenses in tomatoes.

“Bad” bugs have their own enemies, usually other insects.

You can attract these good predator bugs by planting flowers in your garden. Flowering plants attract beneficial bugs by giving them shelter, pollen and nectar. These beneficials also need a constant supply of food: insect pests. Companion planting may not solve all of our vegetable garden woes, in fact it quite possibly could take many, many marigolds to have the desired effect, but a method that could reduce our use of chemicals, even a little, is worth the try. Besides, it looks really good!

Favorite Plant Companions Used by Gardeners

Plant	Benefits	Effect	Comments
	1=repels pests 2=attracts beneficials 3=improves health/flavor 4=adds nutrients		
Basil	Asparagus, peppers, lettuce, tomatoes	1,3	Enhances growth, repels flying insects
Beans	Potatoes, beets, corn, cucumbers, carrots	1,4	Deters potato beetles
Borage	Squash, strawberries, tomatoes	1,3,4	Provides minerals and repels tomato worm
Catnip	Eggplant, peas, lettuce, oriental greens, potatoes	1	Grow separately and use as mulch
Chamomile	All garden plants	1,2,3	Improves crop yields, attracts beneficial insects
Chives	Tomatoes, apples, roses, grapes, berries, carrots	1,3	Deters Japanese beetles and aphids
Dill	Cabbage family, onions, cucumbers, lettuce	2,3	Improves growth/flavor of cabbage family
Garlic	Tomatoes, cane fruits, fruit trees	1,3	Repels potato blight, also use as a spray
Geraniums	Cabbage family, roses	1	Repels cabbage worms and Japanese beetles
Goldenrod	All garden plants	1,2	Attracts big-eyed bugs, ground and soldier beetles
Marigolds	All garden plants	1,2,3	Repels aphids, potato and squash bug
Nasturtium	All garden plants	1,3	Deters many pests, attracts black fly
Onions	Most crops, except peas and beans	1	Deters many pests, especially maggots
Potatoes	Cabbage family, beans, corn, melons	1,2	Repels bean beetles
Radishes	Beans, cucumbers, lettuce, carrots	1	Repels cucumber beetle
Sage	Cabbage family, carrots	1,2,3	Deters cabbage moths and carrot flies
Tomatoes	Asparagus, carrots, cabbage	1,3	Tomatoes & asparagus are mutually beneficial
Yarrow	Most aromatic herbs	2,3	Attracts beneficial insects

Herbs

By Karen Thomson, Master Gardener



Meet Master Gardener, Karen Thomson

Karen started a small herb farm and greenhouse in South Carolina in 1998 where the public or nurseries could buy potted or fresh cut herbs and some heirloom vegetable plants. She joined International and State Herb Associations and became a Master Gardener in 2001 in South Carolina. She earned her second Master Gardener Certificate in Arizona in 2005. Welcome to Karen!

.....Designing Your Herb Garden

Do you want a formal or informal herb garden, culinary, medicinal, a rock garden? Selection of plants will reflect individual preferences. Time, space, sun and drainage should be some of the factors considered when choosing a location for your herb garden. Some herbs do well in pots although they require more water and need to have their roots checked so they don't become root bound. They can be moved indoors to overwinter, or

used to contain invasive plants. They can be planted in cracks in walkways. Prostrate thymes are especially good for this and will reward you with a pleasant scent when walked on, and more vigorous growth.

.....Soil Preparation

Most herbs are not fussy, they like well drained, not overly rich soil as that may inhibit the production of their fragrances and essential oils. Rich soils, however, will produce more attractive plants if they are not to be consumed. Site should be cleared of weeds and spaded to a depth of 18 inches, or make raised beds as an alternative. Add compost, peat moss, well rotted manure and lime as needed and mulch to keep foliage cleaner and area free of weeds. Most herbs prefer a neutral to slightly alkaline soil, so it is best to prepare the bed in fall for a spring planting. Check drainage of soil by digging a hole one foot deep and filling it with water. Wait overnight. If there is still water in the hole, drainage needs improvement. It is also a good idea to have a soil test performed to determine your soil needs.

.....Propagation

Herbs can be propagated by seeds, cutting, layering or division. Herbs such as dill, fennel or those with a long carrot-like root do not transplant well and should be direct seeded where

they will grow. Other seeds may be started indoors in light, well drained soil mix. Cover with plastic to retain moisture, but once the true leaves develop, remove plastic. Harden off plants before planting in garden.

.....Cuttings

Take a three-inch piece of stem that has at least two side shoots, use a rooting compound if desired, or just put in light well drained soil. Soil should be moist, but not wet. Keep out of direct sunlight until roots form.

.....Division

This is best done in early spring, before heavy growth takes place. Use a shovel, dig down and remove a section of root and plant.

.....Layering

Choose a long flexible branch near the ground with several growth buds. Nick the stem three to five inches from the tip. Dig a small trench for the nicked area of the stem and cover it with three inches of soil. Hold the stem in place with a rock or stakes. Check in six weeks for root growth, cut off new plant and transplant.

.....Harvesting Herbs

Herbs should be picked in the early morning after dew has (continued on page 5)

Herbs (cont. from page 4)

dried, but before hot sun has dissipated the essential oils. Most herbs have the strongest concentration of oils just before full bloom. Exceptions are mints and thyme which have most concentration when in full bloom. Leafy herbs can be harvested anytime during the growing season by taking some of the young tender growth to stimulate branching and new growth, perennials should be cut back by about 1/3 to 1/2 at the end of the season and mulched lightly. Root herbs such as horseradish should be harvested at the end of the growing season, taking the main root and replanting smaller roots.

.....Storing Herbs

Herbs can be dried or frozen. To dry herbs, pick at peak oil concentration, rinse dirt off, and shake off excess water. Remove yellow or brown leaves and hang in bundles tied with string upside down in a warm well ventilated area away from sun. Be sure to label herbs. When dry, remove leaves from stem keeping whole. Break them up as you use them. Store in airtight containers in a cool preferable dark place. Herbs can also be dried in the microwave. Put herbs on several layers of paper towel, cover with another layer of paper towel and

microwave on low for 2 – 3 minutes. Check for moisture, and if present, turn leaves over and repeat process. Store as above.

.....Freezing Herbs

Pick, wash and make sure they are dry. Place in freezer bags and expel the excel air. Label bags and freeze. Another way is to chop herbs, place 1 tablespoon of chopped herb in ice cube tray section with 1 tablespoon water. This method is great for herb blends.


In your May Garden!

- Transplant eggplant and pepper plants through the 15th of the month.
- Plant sunflowers, watermelon, summer squash, okra, peanuts, pumpkin, radish, and sweet potato slips.
- Keep seedling and young transplants well watered. Uniform moisture will prevent blossom end rot in peppers and tomatoes.
- Plant bedding plants such as ageratum, celosia, coreopsis, gloriosa daisy, impatiens, lobelia, marigolds, petunias, salvia, verbena, and zinnias.
- Remove spent blooms (deadhead) to extend blooming season. When removing rose blooms, cut back to a leaf with at least 5 leaflets. Fertilize every 2 to 3 weeks with a high phosphorus fertilizer for continued blooming.
- Feed established lawns with a high nitrogen fertilizer. Repeat every 6 weeks through the growing season.
- When mowing, never remove more than one-third of the height of the grass at one time. Make sure your mower blade is sharp to avoid tearing the grass.
- Seeding of new Bermuda grass lawns should begin when overnight temperatures are above 65 degrees Fahrenheit.
- Knock aphids off with a stream of water from your hose and then spray plants with insecticidal soap.
- Mulch trees with 3 – 4 inches of organic matter in tree wells for weed control and moisture retention. Keep the mulch pulled back from the bark of the tree to prevent infestations of disease and insects.

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Staff

Graham Extension Agriculture Agent:
Randall Norton, Ph.D.



Graham Extension Director:.....Carol Willis

Send Comments or Questions by e-mail to:
dorinec@ag.arizona.edu or call 928-428-2611



Calendar Announcement:

High Desert Gardening & Landscaping Conference: Thursday, May 4 and Friday, May 5, in Sierra Vista, 7:30 a.m. to 5:00 p.m.

Windemere Hotel and Conference Center, Sierra Vista

Sponsored by Cochise County Master Gardeners featuring 22 speakers

Go to: <http://cals.arizona.edu/cochise/mg/confforms.htm> to request a Conference Registration Form.

Graham County Cooperative Extension
2100 South Bowie Avenue
P. O. Box 127
Solomon, AZ 85551

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