

Graham County Gardening Newsletter

August 2006

Volume 10, No. 7

New System!! For Answering Gardening Questions

When it comes to answering your gardening questions, we have been understaffed. So, a new routine has been developed to assure a timely response to your questions.

1. Call the Extension Office at 928-428-2611 or The Safford Ag Center at 928-428-2432.

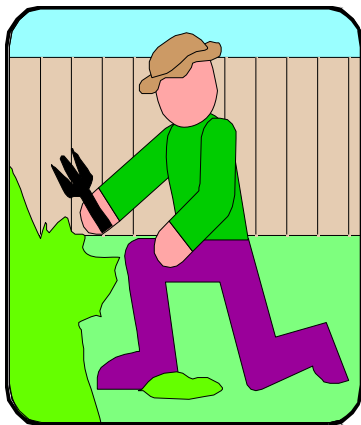
The offices are open Monday through Friday from 8 to 12 and 1 to 5.

You may come to either office you wish. However, your question will be referred to a Master Gardener who is not in the office but at his/her home site.

2. State your question as well as your name, telephone number and e-mail address.

3. Your questions will be referred to a Master Gardener who will answer your question within 48 hours exclusive of weekend hours.

If the Master Gardener needs additional details, you may be contacted for additional information.



Each Master Gardener is an experienced gardener who has been trained and certified as a volunteer with full access to Extension information and resources.

The Master Gardening Program began in Graham County in 1998. Dr. Randy Norton continues the program by teaching the sixteen-week Master Gardener course and assists the Master Gardener Association. Each Master Gardener has taken the course studying the topics of soil, pest management, botany, gardening, landscaping and environmental stewardship.

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Water Wagon What is It?

The Water Wagon is a mobile classroom/laboratory designed to take water education programs to the students of southeastern Arizona.

It has four educational stations: Groundwater Dynamics, Water Cycle, Watershed Model, and Weather Education.

As water issues continue to become more of a priority in Arizona, conservation needs to be taught with respect to both quantity and quality. One side of the Water Wagon displays 14 factoids which can be used in daily living when considering the use of water. Did you know:

1. Water expands by 9% when it freezes. Frozen water (ice) is lighter than water which is why ice floats in water.

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Water Wagon: What is It?

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2. Earth is the only planet in the solar system that has abundant fluid water.

3. Water is composed of two elements. Hydrogen and Oxygen.
2 Hydrogen + 1 Oxygen = H₂O.

4. 40 gallons of water are used in an average 10- minute shower.

5. 97% of the world’s water is in the oceans, 2% is locked up in the ice caps and only 1% is drinkable.

6. In order to maintain health, an average adult requires 2 quarts of water each day from all sources (i.e., water, food).

7. A leaky faucet can waste over 50 gallons of water each week.

8. In nature, water is the only substance that is found in the form of a liquid, a solid, and a gas.

9. On a hot summer day, an acre of cotton will consume 9,000 gallons of water.

10. The average total home water use for each person in the U.S. is about 50 gallons each day.

11. The sun’s energy powers the evaporation of water from the ocean. Water vapor then circulates in the atmosphere and is precipitated as rain or snow over the land, which eventually drains back into the ocean. This is the vast never-ending water cycle.

12. About two-thirds of your body is made of water.

13. 71% of the earth’s surface is covered by oceans, which contain 80% of the earth’s living matter.

14. All the water on earth is used over and over. Water evaporates from lakes, rivers, and oceans, and from clouds in the sky. Then it returns to the earth as rain or snow. This is called the water cycle.

The Water Wagon was originally constructed and equipped with funding provided by a University of Arizona Technology and Research Initiative Fund (TRIF) grant to cover a three-year period. Surveys with local teachers and industry personnel were used in determining curriculum needs. Key personnel were recruited to aid in curriculum development. A website has been developed to aid in marketing the Water Wagon.

(http://ag.arizona.edu/extension/water_wagon/)



Herbs

by Karen Thomson, Master Gardener

General Soil Preparation and Information on Herbs was presented in the May newsletter. Specific information on selected herbs follows.

If you have used herbs, you know that there are many herbs; many that you don’t think of as herbs, and many that are considered traditional herbs. People found over the centuries that plants healed the sick and made their food taste better, especially without refrigeration to keep food. Herbs can be found all over the world, and many can survive a variety of conditions. Some are rather indestructible, but also, under the right conditions, can be very invasive.

Sage – *Lebiatae* – *Salvia*

Habitat—well drained soil, sun
Usage – culinary

Lore—*sage* comes from Latin *salvere*, to be saved. In the Middle Ages, it was used as a general cure-all, much like aspirin is used today. It was also believed to bestow wisdom and improve memory. Sage is considered a perennial in some areas, but dislikes high humidity and temperatures. Treat it as an annual or biennial. It blooms depending on the variety, in a variety of colors, from purple to white to red, and comes in leaf colors that are gray-green, green, purple, bi-colored and tri-colored. There are 800 species to choose from. (Many attract hummingbirds.)

Use sage in sausage, stuffing, cheese, potpourri, crafts. A personal favorite is pineapple sage which the leaves can be used in fruit salad, and the tubular flowers are a very showy iridescent red in the Fall.

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Herbs by Karen Thomson (cont. from page 2)**Pineapple Sage Fruit Salad Dressing**

½ cup apple juice
 ½ cup combination orange, lemon and or lime juice
 sugar or sweetener to taste
 3 pineapple sage leaves, minced
 4 lime basil leaves, minced
 2-3 cinnamon basil leaves minced
 Combine all ingredients, mixing well. Pour over fruit salad, refrigerate at least one hour before serving.

Cheeseball

1 8 oz pkg. cream cheese, softened
 8 oz sharp cheddar cheese, shredded
 2 oz crumbled blue cheese
 1 tbsp minced onion
 ½ - 1 tsp sage
 milk
 parsley and nuts
 Blend all the ingredients except parsley and nuts in food processor using only enough milk to make a smooth consistency. Form into log or ball. Roll in minced parsley and chopped nuts. Serve with crackers.

Chives- Allium schoenoprasum onion chives, A. tuberosum garlic chives perennial

Habitat—well drained fairly rich soil. PH 6.0 – 7.0. Full sun. Divide clumps every 3 – 5 years. Usage – Fresh, dried or frozen. Special – Companion plant for carrots, grapes, roses, tomatoes. Lore—*Chives* belong to the same family as garlic, shallot and leek. Dr. Nicholas Culpepper believed they sent “very hurtful vapors to the brain”. Use anywhere you want a mild onion (garlic) flavor. Do not let flower for the best flavors, but if you have enough clumps to let

some flower, the flowers appear in May-June, are edible, and make attractive garnishes and good vinegar.

Basil – Ocimum basilicum Labiatac – annual

Habitat – well drained fairly rich soil. Likes sun and heat.

Usage – fresh, dried or frozen

Lore – *basil* has been both praised and censured during the course of herbal history. It was asserted by ancient herbalists that it damaged the internal organs, eyes and caused insanity, coma and a spontaneous generation of worms, lice, and scorpions. Pliny on the other hand defended basil’s uses as a carmitive, relieving nausea and dysentery, and was a good condiment. Ancient Greeks believed it would only grow if it was vilified while sowing the seeds and others cherished it as protection against witchcraft and a symbol of love. Today, it flavors vinegars, tomatoes, scents soap and perfume, aids in digestion and is an anti-bacterial.

Basil comes in many flavors including cinnamon, clove, lime and lemon. Made into a pesto and frozen when abundant in the summer, it will bring back a taste of summer on the darkest coldest winter day.

Use basil in combinations with garlic, tomatoes, eggplant, squash and vinegars.

Pesto

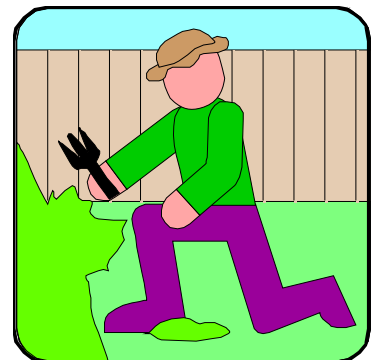
2 tbsp pine nuts or walnuts (optional)
 1 clove garlic crushed
 coarse kosher salt and freshly ground pepper to taste
 1 ¼ cups fresh basil leaves
 4 oz grated Parmesan cheese (optional)

¼ - ½ cup olive oil

Place basil, garlic, salt and pepper, pine nuts, and cheese, if used in blender. Pulse to chop. With the machine running, gradually add oil and process until creamy and smooth. Use fresh over pasta, or chicken, or freeze.

Zucchini Puffs

2 medium zucchini (½ lb.)
 1 large egg
 2 – 4 tbsp flour
 ¼ tsp salt
 ½ tsp baking powder
 Pepper to taste
 ¼ cup grated Parmesan cheese
 1 tsp chopped fresh basil
 ½ tsp chopped fresh oregano
 1/8 tsp snipped fennel (optional)
 1 clove garlic, crushed
 Remove ends from zucchini and discard. Coarsely grate zucchini. There should be 2 cups slightly packed down. Let sit in strainer for about ½ hour to drain. In medium bowl, beat egg until thickened and lemon color, add zucchini, flour, baking powder, salt pepper and herbs and cheese; stir well. Skillet heat a teaspoon of butter and a teaspoon of olive oil. Drop rounded tablespoons of zucchini mixture, well apart into skillet. When bottoms are lightly browned, turn puffs and brown other side. Add more butter and oil as needed. Serve hot. Makes about 14.



What is Wrong With My Tomatoes?—Three Basic Questions

1. Why is there a brown spot on the bottom of my tomatoes?

This is blossom end rot. A round sunken water-soaked spot develops on the bottom of the tomatoe. The spot enlarges and turns brown to black and feels leathery. Mold may grow on the rotted surface. Blossom end rot is not a disease but can be caused by several things. Some experts say it is related to calcium imbalance. Usually the first tomatoes to set on the plant are affected. Blossom end rot can also occur on peppers, squash and watermelon. Several things can contribute to blossom end rot

1. Extreme fluctuations in soil moisture from very wet to very dry.
2. Rapid plant growth early in the season followed by hot dry weather.
3. Excessive irrigation that smothers root hairs.
4. Excessive salts.

Preventive guidelines include:

1. Maintain uniform soil moisture—mulching will help.
2. Avoid using fertilizer high in nitrogen or large quantities of fresh manure.
3. Plant in well drained soils.
4. If soil or water is salty, provide more water at each irrigation and add gypsum to help leach salts out of the root zone.
5. Do not cultivate or work the soil deeper than one inch within one foot of the plant.

2. Why do my tomatoe plants bloom but there are no tomatoes?

A common problem is the heat. Tomatoe blooms will fall

off if the day temperatures exceed 90 degree F.

Also it may be that the bloom has not pollinated and bloom set. Pollination may be improved if you will shake or rap the tomatoe plants or blooms once or twice a day in the morning and evenings. Greenhouse tomatoe producers will hit their trellises with a stick or move the plants with a vacuum cleaner to distribute the pollen. Staking the tomatoe vines or providing a wire support cage will keep tomatoes supported off the ground and make it easier to shake the plants for better pollinations.

Bloom set chemicals are less effective in hot weather.

3. Why are my tomatoe plant leaves turning brown and curling?

If the soil is a heavy clay soil, it will take a **long time for water to soak in**. Water slowly for long periods of time. Use a soil probe to insure that water is getting 1 ½ – 2 feet deep and water at least ¼ inch daily. Mulch around plants. Rotate beds each year.

or

If leaves at the bottom of some of the vines start to turn a brownish color and dry up turning a bronze color and some of the stems also turn bronze with cracks showing in the main stems, you may have **tomatoe russet mites**. The bronzing color will progress from the lower leaves up to the top of the plant.

The tomatoe russet mite is microscopic, light colored and can not easily be seen with a magnifying glass, but needs to

be viewed under a strong microscope. The mites suck sap from the undersides of the leaves and stems and are not easy to control. Recommended insecticides include: Ortho garden sulfur, malathion 50 spray and Kelthane spray.

Tomato russet mite damage should not be confused with curly top virus disease which turns the plant leaves yellow and the tomatoe vine dies suddenly.

or

Some of the plants turn yellow and start to die. This is probably caused by a disease called **curly top virus**. Infected plants show a yellowing of the foliage, the leaves curl or roll up and twist, and the tomatoe plant dies within a few days. The curly top disease will also affect pepper and squash plants. It is spread by an insect called a leaf hopper. The disease overwinters on weeds and other plants. The leaf hoppers feed on the weeds and then move to the tomatoes spreading the disease. If you see a tomatoe plant turn yellow and start to die, you should immediately pull the plant up and destroy it or the insects will spread the disease plant by plant down the row. There is no good control. A few resistant varieties are being developed such as Columbia tomato. Planting tomatoes and peppers in partial shade or caging or shading plants with a fine mesh material sometimes helps, because the leafhopper does not like shade, but prefers sun.

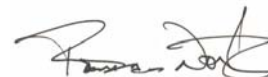
In your August Garden!

- Plant beets, broccoli, Brussel sprouts, cabbage (seed), carrot, chard, radishes and turnips all month.
- Plant beans and kohlrabi through the 15th of the month.
- Plant kale, lettuce (head and leaf), green bunching onions, peas and spinach from August 15th on.
- Keep pepper, cucumber, squash and tomato plants evenly watered to prevent blossom end rot.
- Pollination often suffers when temperatures are high. Healthy growth and fruit production will resume when the temperatures drop.
- Fertilize lawns monthly through the summer with a high nitrogen fertilizer.
- Bermuda grass needs to be watered about every three days during the heat of the summer. If you notice sizable wilted patches of dull, blue-green grass that does not spring back after being walked on, it is time to water. Give lawns special attention where tree roots compete for moisture.
- Sow seeds of pansies, snapdragon, stock, sweet alyssum and violas in pots or flats. Transplant them into a garden in a month or two, when weather has cooled.
- Shear tops off ragged-looking petunias, feed a high nitrogen fertilizer and water; plants will bloom again within 4 weeks.
- Cut back chrysanthemums to about eight inches high or pinch back smaller plants the first of August to encourage bushier plants and more flowers in the fall.
- Make sure drip irrigation tubes are not blocked.
- Continue to deep water trees and shrubs through the heat of the summer.

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



ENTER THESE DATES ON YOUR CALENDAR

THE HOME GARDEN TOUR IS BACK!

Pruning Demonstration

Safford Ag Center, 9 to 12 Noon

Saturday, November 18, 2006

Gardening & Landscaping Class

Tuesdays, 9:30 to 12:30 Noon

January 26 – May 10, 2007

Third Annual Gila Valley Gardening & Landscaping Conference

Saturday, February 24, 2007

Home Garden Tour

Saturday, May 12, 2007

Details will be announced as date for event nears.

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