

## Events & Activities

MG Association Meeting, Wednesday, February 16, 6:30pm, Prescott.

Yavapai Rose Society - , 7:00 PM, Prescott.  
For more information call Bob or Nancy at 771-9300

Prescott Area Gourd Society, third Tuesday of the month, 6:30 pm, at the Smoki Museum.

Pond Club -this is an informal group that meets every couple of months, usually the 3rd week. Email [aquaticgardens@esedona.net](mailto:aquaticgardens@esedona.net) for more information.

The Organic Gardening Club meets on the 3rd Saturday of the month, 2215 E. Aspen St, 3pm. For directions call 928-649-3451.

Prescott Orchid Society meets 3rd Sunday of the month, 2pm at the Prescott Library, call Cynthia for information. (928) 717-0623

Alta Vista Gardening Club, Prescott, fourth Tuesday of the month, 12:30pm. Call 928-443-0464 for location and information.

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University of Arizona Yavapai County Cooperative Extension

# *Yavapai Gardens*

Master Gardener Newsletter

January 2004

## Chilling Requirements for Deciduous Fruit Trees

By Jeff Schalaus

Associate Agent, Agriculture and Natural Resources

This time of year, many gardeners are contemplating which deciduous fruit tree variety they should purchase. New varieties are being released each year and the catalogs tempt gardeners with irresistible descriptions. Deciduous fruit trees need a certain amount of winter chilling to break down growth inhibitors in flower and vegetative buds. Many nurseries provide an estimate of the chilling requirement (also called chill hours) needed for the tree to be successful in a given climate regime. Varieties vary by chilling requirement and varieties are recommended based on the "average" number of winter chill hours a given area receives over the years.

The classic definition of chilling requirement is the number of hours the temperature is below 45 degrees F and above 32 degrees F. More recently, it has been suggested that hours above 65 degrees F be subtracted from the previous calculation. While it sounds feasible at first, the National Weather Service does not routinely calculate and publish these statistics. To further complicate this issue, there are many horticulturists whom are in the process of rethinking how chilling requirements should be calculated. Given all this difficulty and disagreement, the trees themselves are usually very forgiving. The real trick is to know that there is a chilling requirement and what is the appropriate "ballpark" figure for your area.

There are some observable symptoms to look for in fruit trees that have chilling hours incompatible with the local climate. Planting varieties with a lower chilling requirement than necessary frequently results in crop loss due to early bloom/spring frost. In these situations, the chilling requirement was exceeded. Conversely, planting varieties with higher chilling requirements can result in uneven bloom. In these cases, the chilling requirement was not met. Remember chilling requirements are based on averages and calculated averages are made up from extremes and each chilling requirement has some latitude.

After searching for new information on this inexact topic, I found no reliable new information for Arizona. So based on experience, I provide some ranges of chilling requirements for most areas of Yavapai County by elevation range. For elevations above 6,000 ft, look for varieties with chilling requirements above 1,000 hours. For elevations between 4,000 and 6,000 ft, look for varieties with chilling requirements between 700 and 1,000 hours. For elevations between 2,500 and 4,000 ft, look for varieties with chilling requirements between 400 and 700 hours. For elevations below 2,500 ft, look for varieties with chilling requirements between 200 and 400 hours. Remember, you probably have some flexibility here depending on your orchard site/microclimate.

Remember that stone fruits (peaches, apricots, cherries, plums, etc.) are typically earlier to bloom than pome-type fruits (apple, pear, quince) and will produce crops less frequently in areas prone to late spring freezes. Always buy high quality fruit trees from reliable sources. I have always preferred bare root trees over containers. Trees in bags that are sold at discount suppliers may not be of the highest quality. For more information about fruit tree varieties and their chilling requirements, consult the Dave Wilson Nursery web site at: [www.davewilson.com](http://www.davewilson.com).

Naming of companies or products is neither meant to imply endorsement by the author nor criticism of similar companies or products not mentioned.



## MG News

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This didn't get in the December newsletter like it was supposed to. My apologies and thanks for all the great work Master Gardeners have done this year.

### **Master Gardeners Celebrate Successful Year at Annual Picnic** **by Pam Bowman**

On a warm Saturday in early November, Yavapai County Master Gardeners and their families and friends enjoyed great food and engaging conversation in a beautiful setting. About 60 picnickers spent a lazy afternoon beneath large cottonwoods in full fall color growing on the banks Oak Creek. Following lunch, Yavapai County Agent Jeff Schalau thanked all active master gardeners for their volunteer contributions. Congratulations to those receiving recognition for cumulative hours:

100 hours: Evelyn Becker, Bob Burke, Marti Dodd, Charlotte Ewalt, Kathy Grant-Lilley, Ruth Jacobi, Laura James, Judy Mannen, Marilyn Perkins, Melissa Sandeen, Kitty Schleuter, Lindsay Schramm, Jule Weisenbeck, Richard Wise

250 hours: Jane Davie, John Hassell, John Paustian, Eunice Ricklefs, Bev Turnbull

500 hours: Mary Barnes, Rosh Preuss, Bill Starkman

1250 hours: Phil Young

1500 hours: Sal Sorrentino

1750 hours: Beverly Emerson

2000 hours: Nora Graf

Emeritus (10 years of active service): Nora Graf, Linda Scheerer, Art Fillippino, Orville Gilmore

We thank those responsible for another successful picnic: organizer Laura James, "site" director Jeanette Teets, and additional helpers Jane Davie, Rosh Preuss, Mary Barnes and Sal Sorrentino.

# Blackberries

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One of the great things about growing your own is that you can indulge in some things that normally you would pay a fortune for in the grocery store. Blackberries are one of those treats. I'm writing this, of course, in anticipation of a great crop this year with my blackberries. The vines have sprawled everywhere, their vigorous growth promising blackberry delight this spring.

Brambles are common throughout the world, with several hundred different varieties, but only a handful produce edible fruit. They are low-growing shrubs that will spread quickly; stop along Hwy 89a just north of Sedona to see some thick stands. The edible brambles are raspberries, blackberries, dewberries and blackberry/raspberry hybrids. Blackberries were domesticated from many wild plants in both Europe and America. Today's plants are frequently crosses of raspberries and blackberries with some wild genes thrown in. These include Loganberries, Youngberries, Boysenberries, Tayberries and Sunberries. The history of berries is long; Greeks used berries as early as 370 BC. Blackberries have been gathered for over 2000 years. They were grown as hedgerows in Europe. In America, native blackberries thrived when fields were cleared for cultivation. Blackberries like cleared areas to grow in. Cultivation of them didn't start until 1850's to 60's. Today, the Pacific Coast states are the most prolific producers of berries. Berries are low in calories and full of nutrients.

Blackberries and raspberries are very similar and much of the following information will apply to both plants. Raspberries are just a bit "iffy" growing in our area because of the heat. Blackberries and raspberries are called brambles for obvious reasons and are members of the rose family. Both plants are perennials and biennial. This means they grow back each year and fruit is produced on the second year vines. There are spring producers and fall producers. Fruits are aggregates—clusters of small drupelets which develop from the same flower. The drupelets form the berry.

Bareroot plants and container plants are available in the spring. Plant six feet apart. The thorny va-

rieties are more cold-hardy but aren't always as readily available, although that is changing. Blackberries need organic matter; any soil you plant them in should be heavily amended with compost or well-rotted manure. Fall types are heavier users of nitrogen but both appreciate a dose of phosphate, also.

Water is also crucial—they are heavy users of water. The roots are in the top two feet of the soil, so the water must penetrate well into the soil. They will do well using drip systems but emitters should be above the ground.

Blackberries are prolific growers and can easily be increased by splitting off new sprouts and transplanting them as soon as the new sprouts begin to show. You will also need to remove those that escape the bounds of the bed as they can easily become a menace if left on their own. To keep them contained, they will need to be pruned each year. Fall types need less support than the spring type but yields and access to the fruit can be improved by staking.

When pruning, you will be removing the canes that fruited last year. New canes form flower buds the first year but don't flower or fruit until the second, so you want to get rid of the old wood and preserve the new. This is often difficult to tell, if you leave pruning until spring. Remove the old wood after you have picked the berries for the season and then you won't have to figure it out later. As the new canes begin to grow, consider tip-pruning them between 36 and 48 inches long. This encourages the formation of lateral branches and improves the strength of the cane. Cut these lateral branches way back in late winter to a foot and remove very thin laterals altogether.

Trellising the canes makes it easier to pick the berries. It brings the berries above the growth that is coming from the bottom of the plant.

When you start looking for plants, look for these varieties: Boysen, Logan, Marion and Young, with Marion being one of the best choices. Some other names that you might see that are suitable are



Cheyenne, Choctaw, Shawnee and Cherokee. There are thornless varieties available although by all reports, they don't have quite the flavor as the others but you might try Navaho or Arapaho.

Berries can be afflicted by several problems; in fact, it is recommended that you don't grow raspberries and blackberries together because blackberries can harbor a virus that can be transmitted to raspberries. Fruit rot, Boyritis, can be a problem and plants may be afflicted with a virus. This is evidenced by yellow mottled leaves. They can also be affected by fungal diseases. Raspberries are much more susceptible than blackberries.

Well, I don't know about you, but I'm so excited that soon you'll find me sitting by my blackberries with cereal bowl in hand to just waiting for the first ones to turn ripe!

## BLACKBERRY FRUIT TART

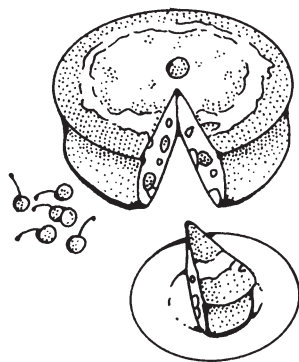
from Berry Lover's Cook Book

### Crust:

- 1 1/2 cups all-purpose flour
- 1/2 cup sugar
- 1/2 cup butter, cut into 1-inch pieces
- 1 egg, slightly beaten
- 1 egg white

### Filling:

- 12 oz. low fat cream cheese
- 1/3 cup sour cream
- 1/2 cup sugar
- 1 1/2 tsp. grated orange peel
- 3 tbsp. orange juice



### Puree:

- 2 cups fresh or whole frozen blackberries, thawed
- 6 tbsp. sugar
- 1 1/2 tbsp. cornstarch
- 1 1/2 tbsp. cold water

### Garnish:

- 3 cups fresh or whole frozen blackberries, partially thawed and drained

In a large mixing bowl, combine flour, sugar and butter. Beat at medium speed, scraping bowl often until mixture is crumbly (approximately 2-3 minutes.) (If using food processor, combine same ingredients in processor bowl, making sure butter is cold. Pulse 10-15 times. Remove to mixer bowl.) Make well in center of flour mixture and pour in egg, reserving egg white for later. Blend with fork until incorporated thoroughly.

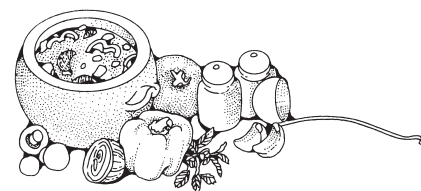
Mixture will be very dry. Press dough out to 1/4-inch thickness on bottom and sides of 10-inch tart pan with removable bottom. Chill for 1 hour. Heat oven to 400 °F. Brush crust with beaten egg white and bake 15 to 20 minutes or until golden brown. Cool. Beat together softened cream cheese with sour cream. Add sugar, grated peel and juice and beat until smooth. Spread evenly over prepared crust and refrigerate. Place berries in processor bowl and process until pureed. Place in saucepan and cook on medium heat 2 to 3 minutes. Add sugar and continue to cook another 5 minutes. Combine cornstarch and cold water. Gradually add cornstarch mixture to berry mixture to thicken. Cool. Pour cooled puree over filling. Just before serving, garnish by placing fresh or partially thawed individual berries over top. Refrigerate until serving. Serves 8-10.

## Picnic Favorite

Kitty Schleuter made a casserole for the picnic that was very popular. As she had many requests for the recipe, she asked me to include it in the newsletter.

## Chilies Relleno Casserole

- 1 Lb. cheddar cheese, grated
- 1 Lb. Monterey Jack cheese, grated
- 1 27 oz. can mild whole green chilies
- 3 1/2 cups milk
- 4 eggs
- 3/4 cup flour
- 1 1/2 teaspoon salt



Heat oven to 350°. Spray 9 x 13 pan with cooking spray. Drain chilies on paper towels and remove seeds.

Place half of the cheese in the bottom of the pan. Place chilies on top. Place remaining cheese on top. Beat milk with eggs, flour, and salt until smooth. Pour mixture on top of cheese and chilies.

Bake one hour, or until set.

# Flower Lore & Legend



## Iris

Iris were considered a symbol of power and lore by Egyptians. An iris appears on the forehead of the sphinx and later on the scepters of kings. Iris was the Greek goddess of the rainbow and messenger of Zeus and Hera. She also lead the souls of dead

women to the Elysian fields. To the French, the symbology of iris goes back to the 1st century AD. The soldiers of Clovis I, King of the Franks, crowned themselves with iris after the Battle of Tolbia but it was not until Charles IV (1294-1328) that the French Fleur-de-lis become common. The fleur-de-lis is an iris.



## Orange Tree

In Greek mythology, a golden apple given by Gaea, goddess of earth and fertility, to Hera on her wedding day to Zeus was actually an orange. The golden apples of the Hesperides were also oranges. Moors introduced orange



trees to Spain. They were so prized that nonbelievers were not allowed to eat or drink any part of the orange—the penalty was death. During the crusades, crusaders saw orange blossoms worn by Saracen brides as a fertility symbol and brought the custom back to Europe with them, the custom spreading throughout Europe and later America. Orange blossoms

were an appeal to the orange tree spirit that a bride not be barren.

## The Thistle

Most thistles today are alternately admired and reviled. While they can have beautiful flowers, they also can be noxious weeds. One thistle though is forever tied to Scottish history and legend. Norsemen invaded Scotland and were holding siege at Starnes Castle. One night the Norsemen decided to wade the moat. They took off their shoes and started across only to find the moat filled with thistle. Their cry's of pain woke the castle guards who rallied and defeated the Norsemen. The thistle became the flower emblem of Scotland. James VII, 1687, founded the "Most Noble and Most Ancient Order of the Thistle of Scotland."



## The Violet

Greek mythology tells the story of the nymph Io who was loved by Zeus. Zeus's wife Hera wasn't fond of the Zeus's dalliances, so to hide Io from Hera, he turned Io into a white heifer. Io wept over the poor food she was required to eat, so Zeus changed her tears into violets. But the story doesn't end there for violets. Like the fleur-de-lis, violets became another French political symbol. During the exile of Napoleon I, 1814, Bonaparte chose the violet (it is considered March's flower—another story, another time,) because the Capitulation of Paris preceding Napoleon's abdication occurred on March 30. Josephine was also said to be very fond of violets and Napoleon proclaimed he would return to Paris in the spring. Now, I'm not really up on my French history but all of this was a big deal! Postcards were made with a bunch of small violets that were actually the portraits of Napoleon, Marie Louise and their son, Charles. This so upset some French citizens that the French government, until 1874, tried to ban reproduction of any picture of violets, which had become a symbol of the Bonapartists. Real flower power!



# MG Association News

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**MG Association Meeting, Wednesday, February 16, 6:30pm, Prescott. 840 Rodeo Dr. Building C Speaker to be announced.**

## Volunteer Opportunities

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### Pecan and Wine Festival

More MGs are needed to staff the Master Gardener table at the Pecan and Wine Festival in Camp Verde.

#### Dates/Times:

Fri. Feb. 11 12 - 6,

Sat. Feb. 12 9 - 5,

Sun. Feb. 13 10 - 4

The shifts will probably be for 3 hours. For those who have not participated in such an event, the table will have some reference books for you to use. It is an opportunity for the public to ask questions about plants, etc. You don't have to have all the answers but can always ask them to bring samples to the Extension offices. Contact Jane Davie, [jcdavie18@aol.com](mailto:jcdavie18@aol.com), 634-7077.

Judging volunteers need to meet at 8:30 Friday morning give Nora Graf a call or email and I will let you now the room number.

### Verde Valley Medical Center Workday

Many thanks to those who responded to the request for volunteers for a workday but more help is needed. If you have not yet responded but would like to participate, contact Jeannette Teets, [jtteets@commspeed.net](mailto:jtteets@commspeed.net), 928-567-6891

## 2005 NATURAL HISTORY SERIES

### Highlands Center for Natural History

P. O. Box 12828, Prescott, AZ 86304. 928-776-9550

JOIN US. Register Now for our annual series of classes on the natural history of the Central Arizona Highlands. Discover the Why's of our species diversity, the What's of geologic formations, the How's of adaptation, the Who's of bird sightings and birdsong ..... And much, much more!

#### LOCATION

Cooperative Extension Office,  
840 Rodeo Drive, Building C

#### DATES

Every Tuesday and Thursday during February

#### TIME

8:30 to noon

#### COST

Members \$80.00, non-members \$90

#### SCHEDULE

February 1 - Step into the Central Arizona Highlands with Nichole Trushell & Fiona Reid Highlands Center for Natural History

February 3 - Botanical Exploration Nichole Trushell, Executive Director, HCNH

February 8 - Bee all that you can Bee: Pollination Ecology Larry Stevens, Ph.D. Zoology, NAU

February 10 - Geologic Logic, Beth Boyd, Yavapai College

February 15 - Mammals of these Mountains, Mark Riegner, Prescott College Faculty

February 17 - Basic Birding, Eric Moore, Jay's Bird Barn, Audubon Member

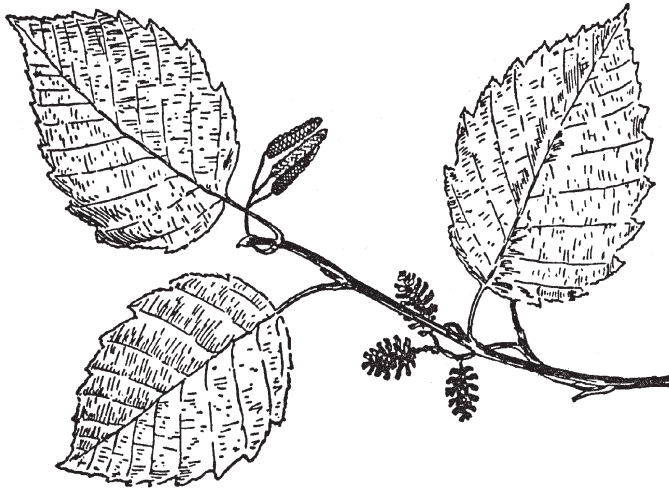
February 22 - Birds In Depth: Their Ecological Story Carl Tomoff, Prescott College Faculty

February 24 - Trails we Leave: A Summary of our Journey, Nichole Trushell and Carl Tomoff

Master Gardeners - The Cottonwood Extension Office needs phone volunteers. You need not be an expert - there is lots of reference material for your use, and other Master Gardeners who can help you. This is an excellent way to increase your knowledge about gardening in the Verde and Sedona areas.

There are two 3-hour shifts per day, one in the morning and one in the afternoon. You would only work 3 hours a week!!!!

Please contact Rosh Preuss. She will be on vacation for a week, but please leave a message and she will get back to you. 928-282-9699, roshpreuss@yahoo.com



To report hours & view newsletter on U of A website - <http://ag.arizona.edu/yavapai/anr/hort/mastergardener/>

To be added to e-mail group code, contact Mary Barnes [mcbarn1@cableone.net](mailto:mcbarn1@cableone.net)

To request waiver, send written request to Jeff Schalau; e-mail is preferred [jschalau@ag.arizona.edu](mailto:jschalau@ag.arizona.edu)

If you are not on e-mail distribution for volunteer opportunities, and would like to be added, contact Mary Barnes, [mcbarn1@cableone.net](mailto:mcbarn1@cableone.net), 583-0889.

#### Volunteer Hours Submissions

If you mail or fax your volunteer/continuing education hours, they should now be sent to the Prescott Extension Office. The form for mailing/faxing has been revised to contain the same information as the electronic version, and it can be found at <http://ag.arizona.edu/yavapai/anr/hort/mastergardener>.

Mary Barnes 928-583-0889

#### Yavapai Gardens Now On-Line

The Yavapai Gardens (this newsletter) is now available on-line. (<http://ag.arizona.edu/yavapai/anr/hort/mastergardener>). Due to rising printing and mailing costs, we will soon be discontin

**FROM THE EDITOR: Please send or email articles and announcements to the address below. Long articles will go in as soon as possible, announcements must be in by the 15th of the month to be included.**

**Nora Graf**

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**Camp Verde, AZ 86322**

**[mesquite2@hotmail.com](mailto:mesquite2@hotmail.com)**

**(928) 567-6703**

Jeff Schalau

County Director, Yavapai County Extension Agent,

Agriculture & Natural Resources

email: [jschalau@ag.arizona.edu](mailto:jschalau@ag.arizona.edu)

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**Building C**

**Prescott, AZ 86305**

**(928) 445-6590**

**FAX: (928) 445-6593**

#### **Cottonwood**

**2657 Village Dr.**

**Cottonwood, AZ 86326**

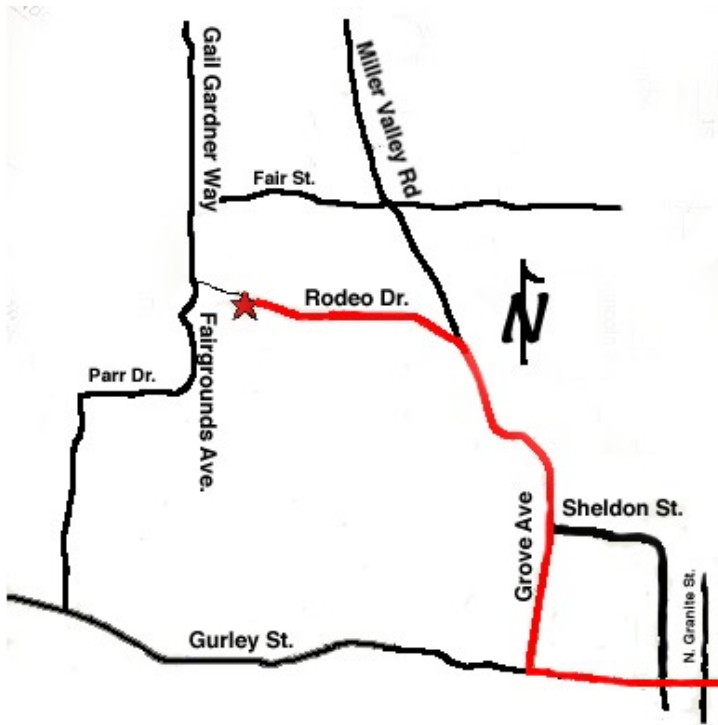
**(928) 646-9113**

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Yavapai County  
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**MG NEWSLETTER**



MG Association Meeting  
February 16  
6:30pm, Prescott  
Speaker: To Be An-  
nounced