

# Yavapai Gardens

June 2003

Master Gardener Newsletter

## Events & Activities

**Prescott Area Iris Society** Saturday, June 7, 1 pm. Prescott Library, upstairs meeting room. Contact: 776-7217. Program: a slide presentation on iris grown in Phoenix gardens for the annual Spring Trek in April. These recent introductions were provided to the Phoenix group by major iris growers and 80 of these iris are included in the slide show.

**Rhizome Sale** - August 9, Sharlot Hall Museum under the canopy, 10:00 am. - until sold out. No early sales.

**Organic Gardening Club:** email thor@commspeednet for more information

**Yavapai Rose Society** - Meets the third Monday of the month, 7:00 PM at the First Congregational Church on E. Gurley & Alarcon, Prescott. For more information call Bob or Nancy at 771-9300,

**Prescott Area Gourd Society** June 15, 7pm, the group tries to meet the third Thursday, but the date is variable, so call 445-1117 for the latest meeting date. At the Prescott Library on Marina.

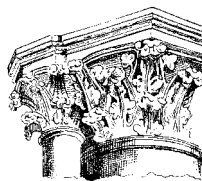
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## Special Thanks

I would like to thank Jack Krivdo for his long years of service on the newsletter. For about as long as I have been writing this, Jack has been there to help me do the mailing. Recently we have "automated" much of the process and moved it over to the Verde Valley. Because of this we have "downsized" the operation and I guess laid off Jack. This doesn't mean he isn't missed. Working with him has always been a pleasure. So thanks Jack and may you have many more great gardening years ahead of you.

## In the Beginning . . .



Have you ever thought about the beginnings of gardening? When did humans first turn their hands to raising plants? The earliest evidence of farming goes back to 8000 BC when people living in the Near East began to use wooden digging sticks and raise wild grasses. By 5000 BC, corn and beans were being cultivated in the Western Hemisphere. I haven't found any clear indication of the time when ornamentals became part of gardens but Ramses III of Egypt commissioned more than 500 public gardens in 1190 BC. The Hanging Gardens of Babylon were built by King Nebuchadnesser II in 600 BC.

Vegetarians should rejoice over tofu's long history. By 900 AD, in China tofu had become a culinary staple.

The 1500's mark a movement of foods from North and South America to Europe—sunflowers, sweet potatoes, vanilla and, the staff of life, cocoa. One other staple of the



American diet also goes from South America to Europe. The potato arrives in France in 1540. Pomme frits becomes french fries (even though I understand it was really a Belgian idea!)

1634-1637 Tulip mania strikes the world.

Tulip bulbs were the tech

bubble of the time, where exorbitant prices were placed on bulbs. People lost their fortunes, homes, everything, when the bubble burst.

1638-Honeybees were introduced to North America and escape into the wild.

1744-King Frederick II of Prussia uses the military to force peasants to plant potatoes. The penalty for not following the edict: cutting off their nose and ears.

1752-Chinese roses arrive in Europe.

1753 is the fatal date that makes many gardeners despair. Carolus Linnaeus developed binomial nomenclature, those pesky Latin or scientific names we don't want to learn.

Sweet corn grown by Iroquois is found by soldiers of the Continental Army in 1779. Unfortunately, no one paid much attention to it. It was 70 years before the new Americans began to eat it. (Prior to that it was field corn that was raised, more for grinding or feed than corn on the cob.)

1792-The first "Farmer's Almanac" was published.

A few interesting individuals show up in the 1800's to promote gardening. Johnny Appleseed begins sowing apple trees in America in 1801. In 1802 a German naturalist, Alexander von Humboldt, discovers vast deposits of sea bird droppings which he figures out contain nitrogen for fertilizer and gunpowder. Empress Josephine of France plants 250 rose bushes in 1803 and commissions an engraver to document them.

Today Americans embrace new and unusual foods but the tomato was feared to be poisonous until 1830 when Horticulture Society President Col. Robert G. Johnson ate a raw tomato in public. Spaghetti and pizza lovers rejoice, as what would the world be like without the tomato!

Also, in 1830, John Deere develops the first steel plowshare. Edwin Budding invents the lawn mower claiming it was useful, amusing and healthful to use.

1849 was the beginning of a political division, the first chemical fertilizers made their appearance.

1886-Gregor Mendel uses the common pea to explore the concept of heredity.

One of the dark moments in agriculture history happened in 1873 when a German chemist developed DDT. A brighter moment occurs in 1884 when the mixture known as "Bordeaux" was developed to protect against fungal diseases.

Late in the 19th century a development happened that, depending on your perspective, could be good or bad. W. Atlee Burpee introduced "Iceberg" lettuce. Twenty years later Thousand Island Dressing first appears.

The turn of the century begins a return to rose breeding. New colors: bright pinks, corals and oranges brighten up the rose palette. Peter Rabbit pops up on the scene in 1902 but Beatrix Potter was more than just a children's author-she showed that lichens were made up of algae and fungi. Her botanical aspirations were crushed, though, because she was a woman.

1911-Bacillus thuringiensis is isolated but not sold commercially until 1958.

1914-George Washington Carver experiments with peanuts and sweet potatoes and shows they can replenish soil.

1916-Japanese beetles show up in America.

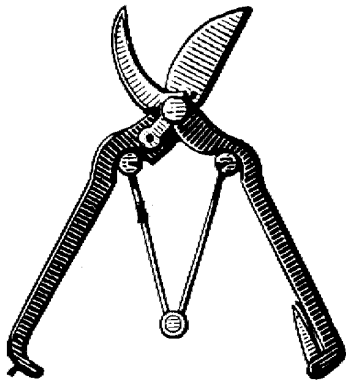
1931-Sir Albert Howard publishes on how to regenerate the soil with compost.

1939-DDT begins to sweep across the world. Paul Herman Muller who recognizes its insecticidal properties wins the Nobel Prize for Medicine.

On the bright side, this is the same year the "Peace" rose is discovered in a garden in France and J.I. Rodale publishes the first issue of Organic Farming & Gardening.

Another dark moment occurs in 1943 when Nazi scientists synthesize methyl parathion-one of the most





toxic insecticides ever made. The US also starts to spray DDT.

The first whispers about DDT begin in 1948 when Fairfield Osborn expresses concern about DDT and wildlife but it wasn't until 1962 that Rachel Carson's book, "Silent Spring," wakes up the

world to the dangers of pesticides.

1972-DDT banned in the US although it is still used in other countries. Paul Berg pioneers the transfer of DNA

1975-Seed Savers Exchange is formed by Kent & Diane Whealey. The Exchange is set up to preserve heirloom plants whose seeds are fast disappearing, mainly due to consolidation in the seed industry.

1980-Part of the world cheers when the first genetically engineered organism is patented.

1981-Environmental concerns help raise the profile of organic farming. The Rodale Institute begins a comparison of organic and chemical farming.

The organic movement gains steam in the 1990's. The US Congress passes the Organic Food Production Act. (Although standards are still being fought over.)

Our love of the tomato helped to create a demand for the perfect tomato. In 1994 the "Flavr Savr" tomato hits the market. It is the first transgenic food approved for sale. It flopped mostly because it didn't taste good. It may have been perfect for farmers and the shippers, but not for the consumer.

Scientists begin to insert pesticides in plants. In 1997 Bt genes were inserted into a variety of potato. Most french fries today come from genetically engineered potatoes.

In 1999, scientists begin to find that pollen from genetically modified corn may be harming monarch butterflies.

In the latter part of the 20th century, the world still struggled with feeding everyone, in spite of modern technology. In America, food production is dominated by corporate farms but the demand for organic foods is rising and gardening is now the most popular hobby in America. Just today I read where President Bush is accusing Europe of impeding the fight against famine in Africa by rejecting America's genetically engineered food. Welcome to the 21st century.

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## DEADLINE--HOURS

**ALL VOLUNTEER HOURS FOR THE YEAR 2002 AND ALL VOLUNTEER HOURS FOR THIS FISCAL YEAR END, JUNE 30TH, MUST BE REPORTED NO LATER THAN JULY 10TH.**

### NO EXCEPTIONS.

Thanks for your cooperation.  
Beverly Emerson, Volunteer Coordinator.

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### KUDO'S TO THE FOLLOWING VOLUNTEERS:

**Lori Anderson** did a presentation for us at the Sedona Winds Assisted Living Facility in the Village of Oak Creek. This was an introduction to gardening for the residents.

**Lindsay Schramm** did presentations for the Sedona Natural Garden Club members. She did a presentation on Compost Tea 101 and "Happy Soil".

The Art and Science of Firewise Landscaping was held on May 3rd at the Highlands Center for Natural History in Prescott. Several of our Master Gardeners participated in this event. This effort was headed up by **Judy Mannen**. **Assisting her in various activities were Beverly Turnbull, ArtPhilippino, Kim Olafson and Kathy Grant-Lilley.**

Our special thanks to each of these volunteers for putting the extra effort forth in each of these special community projects.

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# Flash !

Dr. Daniel Bright Elementary

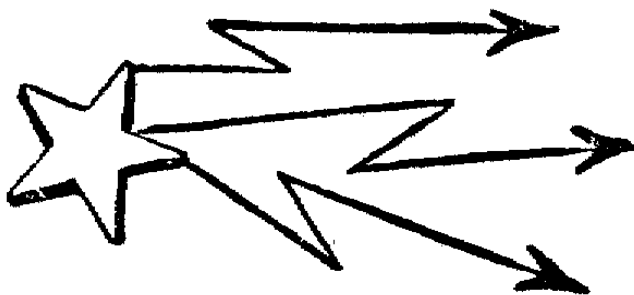
## School Garden News

By Karen Barrow

We can hope the monsoon season will bring us rain. But did you know that it can also bring us fertilizer? Every bolt of lightning produces a form of nitrogen. Mix it with rain and —instant fertilizer! I'm sure you have noticed how much better your plant looks after a thunderstorm. Most people attribute it to the rain but the lightning may be the real bonus.

Baron Justus von Leibig was a German scientist who discovered nitrogen in rainwater. The process of how this happened was a mystery for 150 years.

The atmosphere contains 70% Nitrogen but it is unavailable to plants. This form of nitrogen is made of two nitrogen molecules that are strongly held together-N<sub>2</sub>. Plants need NO<sub>3</sub>. Lightning breaks the bonds of N<sub>2</sub> because of the intense heat it generates-up to 30,000°F. The single molecules combine with oxygen as the air cools, forming nitric oxide, NO. Further cooling allows a second oxygen molecule to attach (NO<sub>2</sub>.) This form is soluble in water, so dissolves in raindrops becoming HNO<sub>3</sub>, nitric acid. The final transformation ends when the hydrogen molecule is lost and instant fertilizer forms, NO<sub>3</sub>. Of course, all this nitrogen falls in the rainiest lightning-prone areas like the tropics, but, with the next monsoon storm, revel in your free fertilizer.



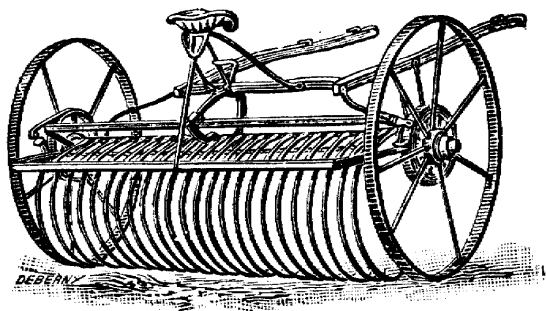
Thanks to some wonderful volunteers, DDB has a much shallower rock lined pond. The waterfall contains a biological filtration unit and will eventually have plants growing in the top of it. The water flows to the other end of the pond where the leaves and other debris are pulled into a skimmer.

Don Troutman of Aquatic Garden Products and Maintenance in Sedona organized the entire renovation project. He arranged for Bedrock Landscape Materials to donate the rocks, David Lottes of Water Garden Creations donated the pond liner and supplied the pond kit at wholesale cost, and Chris Bosman of Green Magic Landscaping and Aquafeatures and David Sealy supplied labor. They volunteered on three different Saturdays to work on the pond. Don also brought more goldfish and is bringing more water plants. He did a wonderful job, and is on call if we have any questions or concerns. It was great to have local people to work with!!

Mrs. Berrett's and Mrs. Winslow's class painted tiles with Arizona wildlife and flowers. These tiles were put onto two benches built by Carlos Mattson.

DDB had a Junior Master Gardener Club, run by Karen Barrow along with the help of three other Master Gardeners, Chris Nelson, Bernadette Selna and Carlon Woodson. We made paper pots, grew greens for the birds in the aviary, made Weed posters, had lots of delicious snacks and helped kindergarteners plant beans. The Junior Master Gardeners have finished for the year, with 8 students earning the "Health & Nutrition from the Garden" Certificate.

I'd also like to thank Jane Davie, another Master Gardener for all her help with pruning roses and irrigation questions.



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# Gourds

## *Lagenaria siceraria*

Gourds are one of those plants that are grown simply for the fun of growing them. They are not particularly useful in the modern world nor are they much in the ornamental department. There's just something about them.

In the past, gourds were a part of everyday life. They were used as storage containers and for carrying water. Utensils were carved from their hard shells. Smoking pipes and musical instruments were made from them.

While you can find all sorts of shapes and sizes there are basically four types:

**Basket gourds** have large bulbous bases with no necks.

**Bottle gourds** have two distinctive bulbous ends with a constriction between them.

**Dipper gourds** have a bulbous base with a long thin neck.

**Snake or siphon gourds** are long and tubular.

Gourds grow well in our climate as do the closely related squashes, gourds like warm weather. The seeds can be planted directly in the ground after the soil has warmed. They need a long season to reach maturity, 120-140 days.

Seeds can be started early inside. To quicken germination, put a nick in the hard seed coat. Plant in full sun in a soil that has been amended with compost or manure. Since they are vines and spread wildly, space the plants at least four feet apart. Once the plants come up, mulch them well to retain soil moisture. Gourds like extra fertilizer during the growing season,

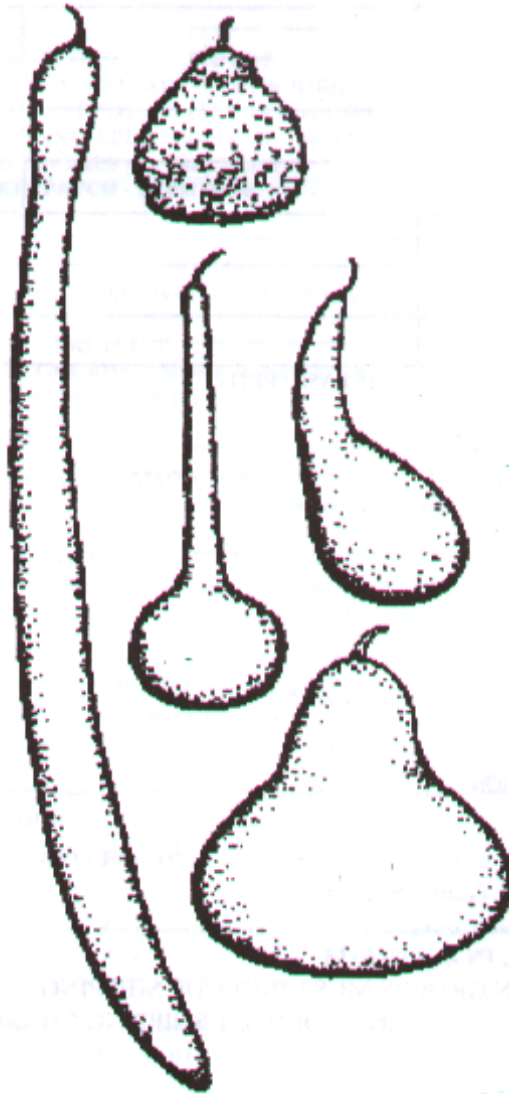
starting out with 10-10-10. Once the plants have set fruit they need a high phosphorus fertilizer, rather than a high nitrogen fertilizer. This will help them develop thicker shells.

As the summer heats up, the plants should take off, producing large white flowers. They have male and female flowers. If you snip off the growing tips of the vines, they will produce more lateral vine thus producing more female flowers. If you are getting flowers but no fruit, you will probably have to hand-pollinate.

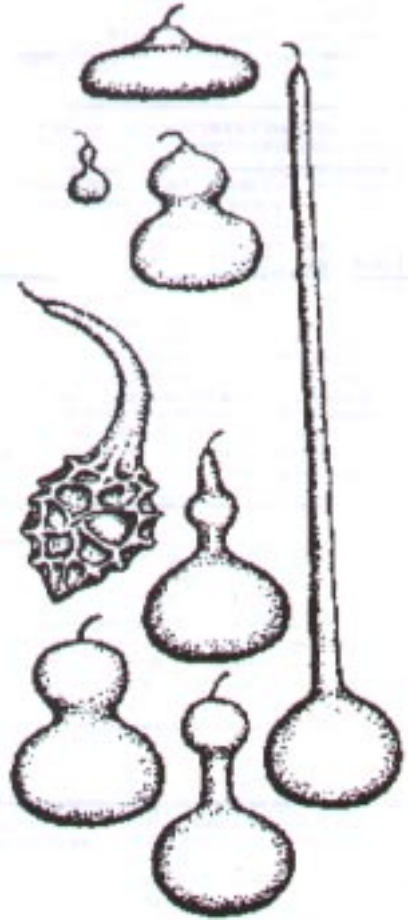
Gourds can be grown on trellises. Just remember, unless they are grown on the ground they will never develop a flat side. You are producing a basketball more or less. I turn my to the position I want them to sit to allow them to develop a flat surface. Make sure any trellis you use is sturdy. The plants are large and the gourds themselves very heavy. Basket gourds may need to be supported. The longer snake or siphon gourds can be twisted into shapes, even knotted, as they grow. Gourds can

even be placed in molds to create interesting shapes.

Pests and diseases can be a problem. They support all the same things that squashes do—powdery mildew, vine borers, aphids and beetles. I've only had serious problems with aphids. Last year the plants just glistened with their honeydew.



I harvest my gourds when the stem is completely dry or wait until after the first frost. Frost generally won't harm a mature gourd unless it is a severe freeze. The gourds then need to be dried, which can take several months. The really large ones may take over six months to dry. Place in a shaded dry place, preferably on a rack so they don't sit on the ground. I usually dry mine on my front porch and don't necessarily have them on a rack. If that is the case, be careful about water around the base. I turn them occasionally to promote even drying.



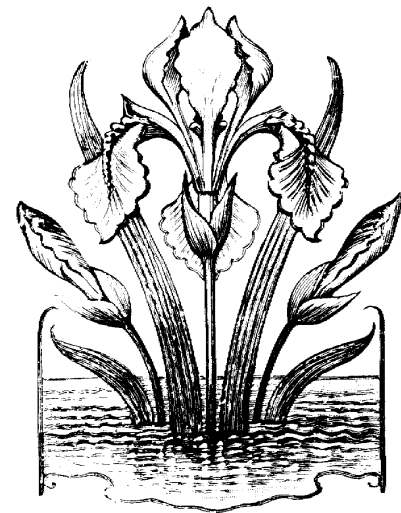
Throw any away that are cracked or damaged; they will not cure properly. When mold starts to grow on the outside, and it probably will, don't worry about it unless the gourd softens where the mold is growing. You can wash the mold off with a 10% solution of bleach. You may have to give it a gentle scrubbing with the bleach. Mold can be tough and it tends to repel liquid. A gourd is completely dry

when it feels light and the surface may start to peel. Don't worry that is normal.

Once the gourd is dry, it can become a variety of things. Gourd crafting has become a popular activity. In a future article I will go into cleaning gourds, but for now happy gourd growing. If you are interested in crafting, there is a local gourd society. The date of the next meeting is June 19 at the Prescott Library on Marina St at 7pm or contact Judy Sullins at 928-445-1117.

## Meeting Changes

At the last Association meeting it was decided to increase the number of the meetings we hold each year. We will have nine meetings per year plus the picnic. There will be no meeting in December and most likely July. I will have more information in the July newsletter. The next meeting will be July 16 in Cottonwood.



A Number of people expressed interested in attending a gourd crafting class. I will hold another one if I can get between 6 and 10 people and find a location to do it. If you are interested, please send me your name, address, phone, email and I will see what I can arrange.

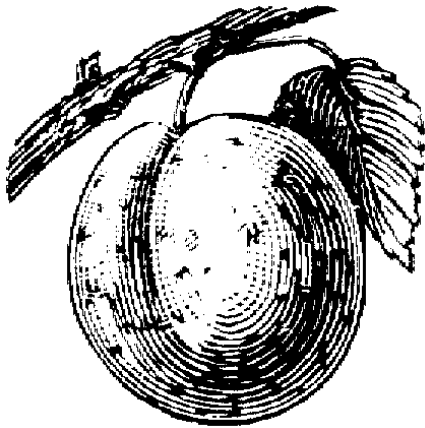
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## From Soup to Nuts: for a cool summer treat.

### Peach Soup with Almonds

2 cups unsweetened peach nectar  
1 1/4 cup dry white wine  
2 tablespoons apple juice concentrate  
2 tablespoons sugar or honey, to taste  
4 tablespoons cornstarch  
10-12 ripe fresh peaches, peeled  
1/4 cup blanched almonds, lightly toasted  
1/4 cup amaretto liqueur, or to taste  
1 cup plain whole milk yogurt or creme fraiche  
Fresh peach slices and cherries for garnish



In medium sauce pan bring the nectar, 1 cup wine, apple juice concentrate and sugar to a boil, turn down heat and simmer. Dissolve the cornstarch in the remaining 1/4 cup wine and whisk into simmering liquid. Cook, whisking gently, until clear, smooth and thick, which should happen almost immediately. Remove from heat and taste for sweetness. More sugar can be added. Let cool to room temperature.

Halve and pit the peaches, drop into food processor. Add the almonds and puree. For an absolutely smooth soup, press the puree through a food mill, fine sieve or strainer.

Stir the peach puree into the thickened wine mixture. Drizzle in amaretto to taste, whisk in 1 cup yogurt or creme fraiche. Chill deeply.

Ladle the soup into chilled cups. Dollop creme fraiche or heavy cream on each serving and arrange a peach slice and cherry on the top.

**NOTE FROM THE EDITOR:** Please send any articles or announcements to the address below. Long articles must arrive by the 10th, announcements no later than the 20th of each month.

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