**The Cranberry**

by Nora Graf

Would you believe that there is a cranberry museum? Everything you wanted to know about cranberries and more. One of the small treasures I found on my vacation. Former Yavapai County Master Gardener Carol Ray (now of Oregon) took me to this interesting little museum and research station.

Did you know that cranberries are more American than apples?
Did you know that they grow on vines?
Did you know they prefer peat or sandy well-drained soil?

Cranberries are actually one of only three native American fruits grown commercially. Concord grapes and blueberries are the other two.

Indians were the first to use cranberries. Crushed berries, dried deer meat and melted fat were mixed to create pemmican. Cranberries were also used in poultices and as dyes. Later, American sailing ships carried them as a scurvy preventive.

Today there are over a hundred different varieties but only four are generally grown commercially. Getting into the cranberry business can be expensive. A four-year investment can easily run $35-45,000 in the Pacific Northwest. An acre of vines will produce approximately 100 barrels, each barrel worth $50 to $60.
Cranberries are easy to propagate. Growers spread vines on the fields, then till them so parts of the vine contact the soil. Roots form and you have cranberry plants.

The vines are plagued with a variety of pests, weeds being the worst, but they are also very dependent on insect pollination. Sometimes bee-attracting plants are planted near the fields to insure pollination. Growers use IPM (Integrated Pest Management) to help them deal with the pest problems. Spot and manual treatments and selected spraying are used to keep pests at bay without the wholesale spraying of pesticides and herbicides.

In October, the berries are harvested. Harvesting can be either wet or dry. Dry mechanical pickers comb the vines and pick cranberries and prune the vines at the same time. The berries and vines are separated by machine. In wet harvesting, the fields are flooded. Machines beat the vines releasing the berries to float to the surface. The berries are gathered behind floats and moved onto conveyor belts.

Washington State University originally funded the Research Station but in 1992 decided to close the facility. Cranberry growers in the area formed the Pacific Coast Cranberry Foundation to purchase the station and farm. WSU still provides support in the form of personnel while local growers maintain the fields. The foundation was formed to help fund cranberry research, maintain the farm, produce cranberries to fund research and extension activities and provide educational facilities for tourists and locals alike. They also maintain a small gift shop and museum.

Twenty percent of cranberries, 73 million pounds, are eaten at Thanksgiving.

Dried cranberries make a great substitute for raisins. Try some Oatmeal/cranberry cookies.

So, if you are traveling in southwestern Washington, just across the Columbia River from Oregon, north of Long Beach, Washington, stop in. They have a four-day harvest festival in October. 2907 Pioneer Road, Long Beach, Washington.

Highlands Garden Conference

Another Highlands Garden Conference is over. Congratulations to Coconino County Master Gardeners and Cooperative Extension for putting together a great event. Special thanks to all the volunteers and staff who devoted lots of hours to make it a success.

Things started a bit grim Wednesday (organization day) with a snow storm. Some of you know what I think of snow, so this gave me something to grumble about for the day. Fortunately, Thursday dawned to sunshine and dry clear roads.

The two days were filled with great speakers and programs. Judith Philipps (author, nursery grower, and landscaper) spoke about Native plants and low water use landscapes, something we all need to think about as the drought continues.

One of my two favorite programs was on Agaves, by Mary Irish. Mary is an expert on the Agaves (Look for her book, "Agaves, Yuccas, and Related Plants, by Gary and Mary Irish) but she's also quite funny. Didn't think the subject of Agaves was interesting? Well sit in on one of Mary's talks and, not only do you learn something, but it will be fun. You will probably see an article on Agaves one of these days.

The other program was on stones in the garden by Landscape architect, Pieter Schaafsma, and stone mason, John Casciani. They went into different types of stones, styles and some how-to about adding patios or walls. Took lots of notes on practi-
cal tips - always the sign of a good program for me.

There was also a fun program on cooking with herbs—a hands-on experience. We cooked miniature pizzas and made ice cream. Ever had “sweet cicely” ice cream? Good stuff. There were tastes for all. Below is the recipe for the pizza dough for those folks that didn’t get it written down.

There were a variety of vendors and organizations—everything, from gloves to plants to garden crafts was for sale. Information on garden clubs, disability gardening and noxious weeds was also available.

Next year's conference will be sponsored by Gila County’s Master Gardeners. Hope to see you there. (They will need volunteers to help and, since Yavapai will be doing it the following year, some experience with the process will help!)

Pizza dough

3 c. Flour (unbleached white, whole wheat or whole wheat pastry, with not more than 1/2 the total being whole wheat.)
1 cup water
1 pkg. yeast
2 tbsp. Olive oil
1/2 teas. Salt (if you find the dough a bit flat tasting, add a teaspoon salt.)

Mix together 1/2 flour, water, yeast; add salt, olive oil. Knead in flour until the dough is no longer sticky. Let rise until double in volume. Can be kept in the refrigerator overnight.

November Calendar

Continue to plant spring bulbs. Dig up glads and dahlias in higher elevations (above 5000 feet,) as they are sensitive to the cold.

Don’t let any late-blooming weeds get away from you. The seeds from just one plant can create an entire forest of weeds next season. Just because it’s cooling off doesn’t mean it’s time to stop weed control.

Mulch shrubs, perennials and trees, especially in the colder areas. Even in lower elevations mulch will help your plants survive unexpected cold weather and help retain moisture. Winter can be very dry.

Prune grapes and summer-flowering berries.

There is still time to plant wildflowers.

Clean up your garden. Remove dead leaves, stems and flowers. This will help keep some insects at bay come spring. Many pests overwinter in the litter that accumulates in the summer.

This is a good time to install a drip system.

The number two killer of trees is improper pruning. Do not top your trees or use any other excessive pruning technique!!! This type of pruning reduces the life of the tree. If you are not sure how to prune, contact the Extension office for more information.

For those that asked me to do a class in gourd craft, I would be glad to put a beginning class together, but it won’t be until after the first of the year. If you are interested, please email me at mesquite2@hotmail.com
Mini Marble Fountain
from "Outdoor water features" by alla & gill bridgewater

Here's a simple water feature if you don't want to dig a hole in the ground.

Materials (it's a long list, but don't give up, it's really not that difficult; it should take less than a day to put together.)

Ceramic container for main reservoir, 20 inches in diameter and 7 in. deep
Ceramic container for fountain, approx. 12 1/2 inches in diameter and 7 in. Deep, with a hole in the bottom.
Flowerpot, 8 in. diameter, 5 in. deep
Plastic pond liner, 36 inches square
Small submersible pump (some mini pumps are not suitable for outdoor use, so check.)
Flexible armored plastic pipe, long enough to protect the pump cable

Electrical outlet hooked up to circuit breaker
Fountainhead, with extension to fit your pump
Masking tape or water resistant plastic tape
Galvanized 1/4 in. wire mesh, 24 in. square
Gravel, small, half a bucketful
Marbles 100, glass assorted colors and shapes
Optional: Copper sheet, 6 in. square, 1 mm thick (can be found in craft shops)

Tools:
tape measure
chalk
scissors
knife
wire snips
pliers
heavy duty scissors for cutting copper

Take the pond liner and cut it to fit the reservoir container; it should cover the inside the bowl to 3/8 inch of the rim. (Mark with tape measure and chalk.) If you are afraid of overtrimming, leave the final trim until you fill with water.

Put the pump into the bottom of the bowl. Make sure the cable is protected by the armored pipe. (Check the information on the pump; it should explain what you need to do to protect against electrical problems.) Fit the fountainhead extension tube to the pump. Wrap masking tape...
around tube to create a plug, (see picture.) The plug does not need to be watertight, only tight enough to hold the tube in place and ensure that the top bowl is always topped up-so the water overflows.

Set the flowerpot upside down over the pump, pushing the cone-shaped tape plug through the drainage hole.

Use wire snips and cut mesh into a round disk that fits over the reservoir pot. Leave extra at the edge to fold over for a smooth edge. Cut a hole in the center for the fountainhead extension tube to go through. The wire should be supported at the center by the flower pot, at the edges by the reservoir pot.

Put the fountain container on the upturned flowerpot and wire mesh, fitting the fountainhead on the extension tube, and top up the pot with gravel. Cover the mesh with a thin layer of gravel so the plastic liner cannot be seen. Use your marbles to cover the gravel, if you wish.

Optional: Take the copper sheet and cut out a fish shape (or any shape that you think is interesting) and tuck into the marbles; it will gradually turn a beautiful shade of blue.
Arizona Cypress is a graceful evergreen that is well suited to many sites in the Verde Valley. These trees are part of the Sedona native plant community and can be found thriving next to intermittent streams and in the cooler canyons. A short geology lesson gives insight into the current distribution of native Arizona Cypress. During the Pleistocene Epoch, the desert southwest was much wetter and cooler than it is today. Arizona Cypress was widespread in the prehistoric Southwest landscape. Botanists think that, when the Pleistocene ice retreated northward about 10,000 years ago, the distribution of Arizona Cypress began to diminish and fragment. Today, this plant dinosaur only clings to scattered sites in the Southwest where the microclimate permits its survival and reproduction.

Arizona Cypress trees are planted in many landscapes in the Verde Valley. It is distinguished by its conical crown, smooth reddish bark, blue-green foliage, and small round cones. Arizona Cypress (Cupressus arizonica) is a fast grower, reaching up to 50 feet in height and spreading to 30 feet. In many areas of the Verde Valley, it is widely planted as a windbreak or to form a screen for privacy along fence lines. Unfortunately, today many Verde Valley Arizona Cypress trees are dead or in the process of dying.

A combination of factors led to these premature deaths. The drought of 1996 (and today, ed.) induced stress on all plants including Arizona Cypress. Native plant populations suffered along with landscape plants from the dry spring and late, almost nonexistent, monsoon season. Once drought weakened the trees, Cypress bark beetles seized the opportunity to dine on defenseless trees.

Cypress bark beetles are native insects that occur throughout Arizona. They are not usually aggressive and also use native juniper trees and Leyland Cypress as host species. They normally breed in limbs and trunks of weakened, broken, dying, or felled trees. When soil moisture is abundant, the 1/8" long beetle bores into twigs and kills branch tips. These dead branches remain hanging on the tree (called flagging.) In weakened, drought-stressed trees, the beetles will infest the trunk. Here, beetles chew vertical tunnels between the bark and wood, laying eggs along the way. The larvae hatch and tunnel outward destroying the tissue that transports nutrients from the top downward. In severe cases, this kills the tree by starving the live tissue below that point.

No insecticide has proven effective in controlling Cypress bark beetle infestations of the trunk. So, what can we do? We keep in mind that Arizona Cypress trees have thrived in the southwest for more than 10,000 years but only under conditions where soil moisture is available. This means providing supplemental moisture through irrigation. This is especially critical during May, June, July, or until the monsoon season is well under way. The simplest way to irrigate is with soaker hoses (porous black hose.) During critical periods, irrigate deeply (two feet) twice a month in an area at least one and one-half the diameter of the drip line of the tree. The beetles still may "flag" the tree but should not be successful at attacking the trunk. Your water-invigorated Arizona Cypress trees will have a greater chance of survival.

Planting a diverse mix of tree species can also decrease catastrophic pest problems. When only one tree species is planted, this creates a monoculture. Monocultures are open invitations to pest attack. Don’t wait for the R.S.V.P., add resiliency to your landscape by planting three or more tree species. To learn more about other species of trees suitable for this area, ask for the University of Arizona Cooperative Extension Publication: Drought Tolerant Trees for the Verde Valley.
Halloween Treats

With Halloween, some of you may have some pumpkin seeds lying around. Don’t let them go to waste.

Plain Roasted Pumpkin Seeds
Separate seeds from pumpkin pulp but do not wash. For every 2 cups of seeds, use 2 tablespoons mild vegetable oil and 1 to 2 teaspoons salt. Combine and spread out on a cookie sheet. Bake in a 250° F oven until the seeds are dry, approximately 1 1/4 hours.

Curry-Roasted Pumpkin Seeds
Clean seeds but do not wash. Combine 3-4 tablespoons curry powder, 1 1/2 cups warm water, 1 tablespoon lemon or lime juice, and 1 teaspoon salt. Bring to a boil to dissolve the curry powder; add pumpkin seeds. Simmer mixture for 5-10 minutes. Drain, place on oiled cookie sheet, and bake in a 250° F oven for 1 - 1 1/4 hours or until the seeds are dried out. You might want to experiment with other seasonings.

The "Arizona Master Gardener Manual" is now on-line. Check out http://ag.arizona.edu/pubs/garden/mg/

NOTE FROM THE EDIT OR:
Let me know about your garden, the types of seeds you planted, interesting articles you found—anything of gardening interest. Send to:
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