Master Gardener University of California

The Curious Gardener

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the University of California Cooperative Extension
and the UC Master Gardeners of Placer and Nevada Counties

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The University of California, Agriculture and Natural Resources, Making a Difference for California

Unusual Vegetables for the Foothills

By Mike Kluk, Master Gardener of Nevada County

Growing new and unusual vegetables is always interesting and fun. You get the challenge and wonder of growing something unique and a culinary payoff in the end. The following are four vegetables not commonly grown in our area that should be successful in the foothills.

Mexican Sour Gherkin

Few vegetables are considered "adorable" but one is often referred to that way; the Mexican sour gherkin (*Cucumis melothria*). Other common names are mouse melon, cucamelon and sandita, or little watermelon in Spanish. Often considered to be a diminutive cucumber, the plant geeks among us know it is an entirely different species from cucumbers (*Cucumis sativus*). Regardless of its genealogy, this is one of those vegetables that will rarely make it into the house, generally being consumed somewhere between the garden and the door. As an added benefit, it is extremely easy to grow and readily reseeds.

The Mexican sour gherkin grows on a delicate vine that can be easily trellised. This can create a very interesting effect with the small hanging fruit looking a bit like tiny rattlesnake watermelons. They taste like a cross between a cucumber and watermelon with tangy citrus overtones. A versatile vegetable, they can be eaten without peeling or can be sautéed and are often pickled and canned. Seeds are readily available on-line from suppliers of open-pollinated vegetables.

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Unusual Vegetables
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Yacon

A new-found vegetable to American foodies, yacon (*Smallanthus sanchifolius*) has been grown and enjoyed for millennia by South Americans. Derived from a native word meaning water root, it is so juicy that it was used as a water source by Mayan messengers. Primarily a root crop, the leaves are also edible and often used to wrap around rice and beans or other fillings. The tubers are long, succulent and more fruity than starchy. In fact yacon is often paired with fruit in a salad. It is sweet and crispy with the bonus of a low glycemic index.

Yacon is a member of the daisy family and is related to dahlia and sun chokes. It has tiny flowers that produce only sterile pollen. It is grown from crowns that are divided each year and planted. Yacon needs a long growing season and temperatures that stay above 40 degrees. In our climate, it is best to start yacon crowns indoors. These are big plants when mature; space the crowns 3 to 4 feet apart in soil that has been enriched with lots of compost. They need regular water and will do best with afternoon shade. Yacon plants can produce twice as much as a potato when grown in favorable conditions. Cover the base of the plant with straw when frost threatens in the fall. Once the top has been frost killed, lift the tubers and let them sweeten for a few weeks in a cool, sheltered spot. Yacon is virtually pest and disease free, although gophers really love them.

Salsify

Salsify (*Tragopogon porrifolius*) is an old-fashioned vegetable with its roots in the Mediterranean region. It was often foraged by the Greeks and the Romans and used for ornamental, medicinal and culinary purposes. It was not cultivated in Europe until the 1500's and was first grown in the Americas in the 1700's. It was a popular root crop also known as oyster plant and vegetable oyster. Its flavor is often described as a cross between asparagus and oyster.

Salsify is easy to start and should ideally be planted two to three weeks before the last expected frost. The leaves look like a clump of grass, so don't weed it out unintentionally. It needs a long growing season of 120-150 days to produce good-sized roots. The roots, when mature, are 8-12 inches long. Like carrots and parsnips, salsify is a biennial that benefits from some frost in the fall to develop a sweeter flavor,

Salsify is a nonnative wildflower that grows in many areas of Nevada County below 5600 feet, which is a good indication it can be successful in your garden. It sports a very pretty flower in late summer. It is a hardy plant that will essentially grow itself given decent soil and a little water and has virtually no pests or diseases. It does reseed readily with parachute like seeds that will disperse widely, so it may be prudent to harvest the seed heads before they mature.

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Unusual Vegetables
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Ground Cherries

If you want to experience a bit of the tropics in Nevada County, try growing ground cherries (*Physalis pruinosa*). The small, yellow fruit, wrapped in a husk, has a flavor reminiscent of pineapple and strawberry with a hint of tomato.

Ground cherries like our summer heat and do best in full sun. They can grow in your vegetable garden, tucked among ornamentals or in large pots. They grow up to two feet high and wide and do not need to be staked. Once established, they are very drought tolerant and will produce fruit consistently right up to the first frost. When ripe, the fruit will fall to the ground and can be gathered up, each in its own wrapper. Ground cherries experience few pest or disease problems. They readily self-seed, so be prepared for baby ground cherries sprouting up each spring. Having volunteer ground cherries is not a bad thing! Just leave a few that happen to come up in a convenient spot and you'll be able to enjoy them with very little effort year after year.

References

- *Ethnobotanical Notes on Yacon*, Yardini, 1991, http://link.springer.com/article/10.1007/BF02860051#page-1
- *Salsify (Oyster Plant)*, www.foodreference.com/html/artsalsify.html
- *Groundcherries*, www.ipm.ucdavis.edu/PMG/WEEDS/groundcherries.html
- http://articles.latimes.com/2013/may/14/news/la-lh-mouse-melons-mexican-gherkins-20130514

Disease Prevention Tip

Remember to prune apricot and cherry trees in July or August, after harvest. These trees should not be pruned in the winter. Eutypa dieback, or Cytosporina, is a fungal disease that causes twigs or whole branches to wilt and die. The fungal spores are spread by rain and enter trees through pruning wounds. By completing pruning at least 6 weeks prior to fall rains, you greatly reduce the risk of your trees contracting this disease. For more information, see the UC Davis IPM Pestnote at www.ipm.ucdavis.edu/PMG/GARDEN/FRUIT/DISEASE/eutypadieback.html

Creepy Crawlies in the Movies

From Bonnie Bradt, Entomologist and Master Gardener of Nevada County

Can you name the insect, spider, or other creepy crawler, to complete the movie title?

Answers on Page 7

1) The ___ Bully

2) Akeelah and the ___

3) The _____ Coast

4) The Green _____

5) The _____ King

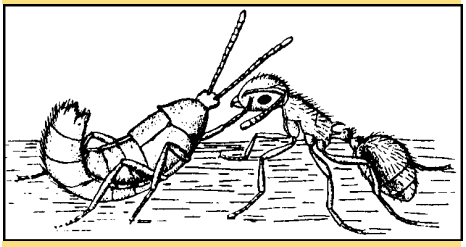
6) Lord of the _____

7) The _____ Effect

8) The Love ___

9) ___ Away Home

10) Kiss of the _____ Woman



Poison Oak—It's Here with a Vengeance and Bigger than Ever!

by Lexy Martin, Master Gardener of Placer County

Most any walker or hiker in the Sierra foothills knows the dangers of *Toxicodendron diversilobum*—poison oak. They know to beware the three shiny, rust-red leaves. But, do you know all its forms and that it is getting bigger? I am fast learning as I've just gotten over the worst case of poison oak, ever! My experience and anecdotes from neighbors indicate that poison oak is both more wide-spread and larger-leaved than in past years. Researchers say that climate change, warmer temperatures, and rising levels of carbon dioxide tell the plants to grow bigger leaves. Further, the oil of the leaves, urushiol, is more powerful and supercharged than ever.

I've suffered with poison oak several times to the point of needing medical attention. So I'm diligent in watching for it, but I messed up this year. Let my story be a warning to be careful, know all its forms, and be prepared. For the past year I've challenged myself to walk 10,000 steps a day, measuring the steps with a Fitbit. I walk four to five miles every day, taking off from my home in Meadow Vista on different paths. When I return and walk up our driveway, I pull weeds. In May, I pulled half a dozen of weeds that easily came out of the ground and then got to one with some little whitish-green flowers that didn't come up easily. So, I looked more closely and thought, "oh darn, I wonder if those three pointy, green leaves are poison oak? And, I didn't know poison oak has flowers!" However, being cautious, I came immediately into the house and washed my hands with dish soap.

Flowers of poison oak. Photo by Jack Kelly Clark

Why did I wash with dish soap? I knew that I needed to get the oil from the leaves off my hands and, as a dish-soap is a de-greaser, it supposedly can take off the poison oak oil. Other products do a better job, but I had none on hand. It wasn't for two days, during which I got poison oak pretty much all over my body, that I discovered that the soap I thought was our dish soap was actually a mild hand soap that did no good at all. Someone.... had put the last of a bottle of hand soap in the dish soap container.

Imagine all the places you can touch after pulling poison oak and not treating it correctly. Imagine that hand with poison oak oil—and all it can transfer to—taking off my sun glasses and rubbing my eyes, checking my Fitbit, putting my hair behind my ear when I took off my hat, untying my shoes, and, and.... At every one of those touch points I transferred the virulent, poison oak oil to my computer, to my next day's clothes, to my car, to light switches, to, to, to... and the list goes on. I read that only ¼ of an ounce of Urushiol is all that is needed to cause a rash in every person on earth and an amount the size of the head of a pin head can infect 500 people.

But my biggest learnings were about the various forms of poison oak. Poison oak is found in damp, semi-shady areas near running water and it also thrives in direct sunlight. It only needs water in early spring. It is common in Douglas fir forests and California oak woodlands. It can be a woody shrub or vine, without leaves in winter. It can grow to six-feet high, growing as a climbing vine, supporting itself on other vegetation on its aerial roots. Leaves are typically clusters of three leaflets with the central leaflet longer than the other two, but sometimes leaves can be five, seven, or nine leaflets. Young leaves are green in the spring, slender and pointy. In the spring, poison oak has small, white-green flowers—

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References

- www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7431.html
- *Poison ivy, poison oak becoming stronger over time*. June 9, 2015. CBS News, Bianca Seidman. http://www.cbsnews.com/news/poison-ivy-poison-oak-becoming-stronger-over-time/
- *Fast Facts*, Poison Ivy, Oak and Sumac Information Center. http://poisonivy.aesir.com/view/fastfacts.html

Poison Oak

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and that is what got me—I wanted to pull weeds before they flowered and spread seeds. In late spring and summer, the foliage is glossy green and later turns shades of orange and red. The plant even has round, green fruit in the summer! The surface of the leaves can be glossy or dull, even hairy, especially on the lower surface. See the UC Davis Integrated Pest Management Pestnote on poison oak for more pictures: www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7431.html

So, what should I have done instead of washing with what I thought was dish soap? The best way to prevent an outbreak is to pour a mild solvent such as rubbing alcohol over the exposed area and then wash with lots of cold water. Avoid using warm water and especially hot water, as hot water enhances the penetration of the oil. While alcohol should be used within five minutes, washing your hands in cold water will help dilute the oil so it's not so harmful. Use soap only if you use copious amounts of water. There are products that will remove the poison oak oil and even some that supposedly will protect you from poison oak. Ask your pharmacist for recommendations.

How about managing a poison oak outbreak on your property? First, if you are highly sensitive, get help. Otherwise, there are mechanical and chemical control options. Eradication takes attention as any root stock left can more vigorously re-sprout and any detached and dried brush or root stock will still contain the oil and can still cause the rash. Do not burn poison oak. See the UC Davis IPM Pestnote on poison oak for more on how to manage. Even after treating as recommended, be sure to watch the treated area for a return for at least a year and some say as long as three years!

Poison Oak Fruit. Photo by Joseph M. DiTomaso

How should you treat the rash if you get it? I found useful information for treatment at the Center for Disease Control and Prevention, Poisonous Plants, NIOSH Workplace Safety and Health www.cdc.gov/niosh/topics/plants/.

I hope I've put the fear of poison oak in you. I hope you will be vigilant. I hope you will have the products on hand in case you do come in contact. I hope you have new ideas on managing it. I sincerely hope you don't get it!

Can A Compost Pile Spontaneously Combust?

By Kevin Marini, Community Education Specialist: Home Horticulture and Composting Education

If I had to answer this simply with a "yes" or "no," the answer would be "yes". However, for the backyard composter, spontaneous combustion of a backyard compost pile is not something to be too concerned about. Although there have been documented cases of compost and mulch piles spontaneously combusting, these have been enormous in size, well above the scale of a backyard compost pile. Keeping a compost pile moist is crucial in the summer; not only will it keep decomposition humming along and protect from spontaneous combustion, it will also protect the pile from becoming a home for a critter.

According to Cornell Cooperative Extension Operator's Fact Sheet #9, "Fires are rarely a problem in outdoor composting operations. Because the inside of the windrows should be damp, compost normally burns poorly. However, if the material does dry out and gets too hot, combustion can occur. Organic material can ignite spontaneously at moisture contents between 25 and 45 percent. This sometimes happens to stored hay or silage, and can happen to compost as well. First, however, the material has to heat to over 200° F (93° C), which typically requires a pile over 12 feet high."

Q & A

I don't care for cacti and succulents. What other landscape plants use little water?

by Trish Grenfell, Master Gardener of Placer County

The relatively small, fuzzy leaves of California fuchsia, Epilobium canum*, help it conserve water. Photo by Elaine Kelly Applebaum*

Actually many plants other than those usual suspects have adapted to get by with less water or to store water for later growth. A good place to start would be the UC Davis Arboretum All-Stars: http://arboretum.ucdavis.edu/plant_search.aspx According to this website, "The horticultural staff of the UC Davis Arboretum have identified 100 tough, reliable plants that have been tested in the Arboretum, are easy to grow, don't need a lot of water, have few problems with pests or diseases, and have outstanding qualities in the garden."

But of course, the All-Stars aren't the only drought tolerant plants to be found. **There are certain plant characteristics that suggest a plant may tolerate water stress. Look for silvery or fuzzy foliage** which are often clues that a plant has lower water requirements. The presence of fine hairs on the leaves of some plants like silver sage (*Salvia argentea*) is an adaptation that traps moisture at the leaf surface. Michael V. Mickelbart, Dept. of Horticulture and Landscape Architecture at Purdue University, writes, "Leaf hairs (called trichomes) appear as grey or white pubescence and reflect light and reduce water loss. While we still don't fully understand how trichomes affect plant water loss, leaves that are covered with these small hairs typically lose less water than those that do not."

The **thickening of a leaf or needle with a wax coating** is another indication of drought tolerance. Waxes are thought to prevent water loss and reflect light, which keeps leaf temperature from becoming too hot.

Since large leaf areas have more surface area from which water can be lost, **drought-tolerant plants will often have small leaves** (or in the case of conifers, needles). Another way trees reduce leaf area is by having deeper sinuses. Sinuses are the indentations between leaf lobes. Trees and other shrubs with large leaves which are cut with deep sinuses are more tolerant of dry conditions because their total leaf area is reduced by the sinuses. And some plants roll or curl their leaves when stressed for water, thereby reducing the leaf surface exposed to sunlight and consequently the water loss.

Then there are the plants that flower only in winter or spring, going dormant during the long, hot summer months. Think of the beautiful spring bulbs, like tulips, daffodils, and irises. They grow, flower, and die before the dry season ever arrives.

Some plants have a deep, expansive root system that can find and capture water, even in small quantities. They tend to do better in hot climates than plants with shallow root structures.

Note: Almost all landscape plants don't become drought tolerant until they are established. They require consistent moisture for about one year after planting.

Do some research but don't assume "California native" is synonymous with "drought tolerance."

There are many lists of drought tolerant plants online. Besides the Arboretum All-Stars, check out Sunset's list of "Top 50 Water-Wise Plants": www.sunset.com/garden/flowers-plants/water-wise-plants. It's not all succulents and cacti!!

Leucophyllum frutescens, Cenizo

by Elaine Kelly Applebaum, Master Gardener of Placer County

Just when many plants are shutting down to survive the heat of summer, this all-star is hitting its stride. *Leucophyllum frutescens*, which goes by many common names including Cenizo, Texas Ranger and Silverleaf, is native to Texas and northern Mexico. It thrives in heat, drought, wind and rocky soils.

The species is a medium to large shrub or small multi-trunked tree, topping out at about 8 feet tall and wide, with silver grey foliage and pinkish purple flowers. There are several cultivated varieties available. 'Green Cloud' has bright green foliage and magenta flowers; 'White Cloud' has grey foliage with white blooms. 'Compacta' is smaller, at about 5' tall and wide, with grey foliage and pink flowers.

Cenizo needs little, if any, maintenance and is resistent to disease. The only requirements are full sun and good drainage to avoid root crown rot. The 1 to 1-1/2" blooms appear in profusion in the summer. In the wild, flowering appears to be triggered by high humidity or seasonal rain, earning it yet another common name, barometer bush.

To survive our winter rains (if they return), it may be best to plant Cenizo in a raised bed or on a berm. It is hardy to 5°F, but may lose some leaves during the winter. It prefers the alkaline soil of its native range, so adjustment of our acidic foothill soils may be needed for best performance.

References

- http://aggie-horticulture.tamu.edu/ornamentals/natives/shrubs/leucofru6130.jpg
- http://arboretum.ucdavis.edu/allstars_detail_67.aspx

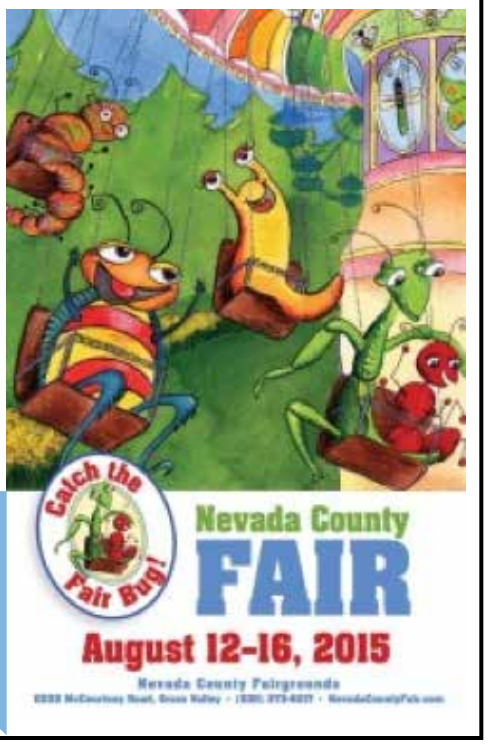
Nevada County Fair
Come Visit the Nevada County Master Gardeners in the Ag-Sperience Area!

"Catch the Fair Bug"

Join us for five days of excitement and fun for Fair-goers of all ages.

The Nevada County Fair is the perfect opportunity to enjoy live entertainment, delicious food, carnival rides, animals, and exhibits—in a community-friendly environment and at affordable family prices!

See you August 12 – 16, 2015.



Answers to Creepy Crawlies in the Movies Quiz:

1) The ANT Bully

2 Akeelah and the BEE

3) The MOSQUITO Coast

4) The Green HORNET

5) The SCORPION King

6) Lord of the FLIES

7) The BUTTERFLY Effect

8) The Love BUG

9) FLY Away Home

10) Kiss of the SPIDER Woman

Events Calendar

Nevada County Demo Garden
1036 W. Main St., Grass Valley (on NID Grounds)

Placer County Demo Garden
11477 E. Ave., Auburn (Senior Garden, DeWitt Center)

July

July 18
Seasonal Gardening Workshops:
9:00 am ***Summer Care & Maintenance of Your Soil***
10:00 am ***Harvesting & Preserving Your Summer Bounty***
11:00 am ***Starting Your Winter Garden***
12:00 pm ***A Home Gardener's Guide to Seed Saving***
Placer County Demo Garden

August

August 8
10:00 am-noon
A Home Gardener's Guide to Seed Saving & Community Seed Exchange
Nevada County Demo Garden
(In case of bad weather: NID annex)

August 12, 13, 14, 15, 16
9:00 am - 7:00 pm
Visit the Master Gardeners Booth at the Nevada County Fair
Daily Workshops & Composting Demos (See NC Fair Guide for schedule)
Ag-Sperience area of Nevada County Fairgrounds, 11228 McCourtney Rd, Grass Valley

August 22
9:00 am-noon
Foothill Vegetable Gardening: How to Grow Cool-Season Vegetables in Fall, Winter & Early Spring
Nevada County Demo Garden
(In case of bad weather: NID annex)

August 29
10:00 am-noon
Foothill Vegetable Gardening: Compost - the Gardener's Best Friend
Nevada County Demo Garden
(In case of bad weather: NID annex)

September

September 5
10:00 am-noon
Building Great Soil, from Cover Crops to Lasagna Gardening
Nevada County Demo Garden
(In case of bad weather: NID annex)

September 12
9:30 am-2:30 pm
"Bite Me" Tomato Tasting & Open House
Nevada County Demo Garden
(In case of bad weather: NID annex)

September 19
Seasonal Gardening Workshops:
9:00 a.m. ***Protect & Feed Your Winter Soil with Cover Crops***
10:00 a.m. ***Seasonal Composting***
11:00 a.m. ***Preparing Your Fruit Trees for Winter***
12:00 p.m. ***California Native Plants in the Landscape***
Placer County Demo Garden

Nevada County events in green boxes

Placer County events in yellow boxes

Nevada County Master Gardeners Fall Plant Sale

September 19 • 9:00 am-Noon

Don't miss out! Be in line by 9:00am for the best selection.
Nevada County Demo Garden

October

October 3
10:00 am-noon
Creating Perennial Borders for Sun & Shade
In case of bad weather: Elks Lodge, 109 S. School St., Grass Valley

October 10
10:00 am-noon
ABCs of Planting an Orchard
In case of bad weather: Elks Lodge, 109 S. School St., Grass Valley

Growers' and Farmers' Markets

Saturdays, Mid-May to Mid-Sept.
8 am-Noon
Visit Nevada County Master Gardeners at the North Star House Growers' Market, 12075 Auburn Rd., Grass Valley

1st and 3rd Saturdays, May to Sept.
8 am-Noon
Visit Placer County Master Gardeners at the Auburn Farmers' Market
Old Town Courthouse Parking Lot

Tuesdays, May to Sept.
8:30 am-1:00 pm
Visit Placer County Master Gardeners at the Roseville Farmers' Market
Whole Foods Market at Fountains

About Master Gardeners

Our mission as University of California Master Gardener volunteers is to extend research-based gardening and composting information to the public through various educational outreach methods. We strive to present accurate, impartial information to local gardeners so they have the knowledge to make informed gardening decisions in regard to plant choices, soil fertility, pest management, irrigation practices, and more.

The Master Gardener volunteer program was started in the early 70's at the University of Washington. Farm Advisors became overwhelmed by all the incoming calls from home gardeners and homesteaders so they trained volunteers to answer these questions and the "Master Gardener Program" was born. The first University of California Master Gardener programs began in 1980 in Sacramento and Riverside counties. The Nevada County and Placer County Master Gardener Associations began soon thereafter in 1983.

Over 30 Years of Serving Placer and Nevada Counties

Have a Gardening Question?

Call our Hotline

Placer County Residents
530.889.7388

Nevada County Residents
530.273.0919

Master Composter Rotline
530.889.7399

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Production Information

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Placer County Master Gardener

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