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Citrus "A-Peel": Clues to Identification and Ripeness of Citrus Using Its Peel

By Laurie Meyerpeter, Placer County Master Gardener

Citrus peel is tricky. It's mysterious. Is this orange ripe? How do I tell if my limes are ready to eat? I can't tell if this citrus tree is a lemon or a lime; all the fruit is still green. My kumquats are sour when I suck the juice out. Each of these citrus questions have a connection with its peel. Citrus peel can be used to identify varieties of citrus. Surprisingly, the color of the peel is not a reliable method of determining ripeness. And citrus peel is edible and exquisitely flavored. It's time to explore the wonderfulness of citrus peels!

Using Citrus Peel for Identification of Citrus Varieties

Citrus peel can be used as part of the identification process when identifying unknown citrus. For example, you may have a tree with small fruit that are green and shaped like a lemon. Or is it a lime? Scraping or scoring a little bit of the peel will release odors that can help you identify it as a lemon or as a lime. Take a big whiff. Can you smell the lemon? Or does it smell like lime? After you've used the scent of the rind, cut an individual fruit in half and examine the peel, which will reveal how thick the rind is. Lemon peels are thicker, while lime peels are thin.

The same volatile oils in the peel are in the citrus leaves too. You can crush the leaves and often identify the smell of lemon or lime or orange. And while you're examining those leaves, check out their size and shape. Lemon leaves are oblong and elliptical and up to 5" long. Lime leaves are smaller and shorter, typically up

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to 2" long. Each different citrus variety has unique leaf characteristics that can be used to discover what your mystery citrus is.

By now, you should be on your way to a positive identification of your citrus and the next step is either a big glass of lemonade or a squeeze of lime on your favorite Mexican or Thai dish!

Using Citrus Peel to Determine Ripeness

Citrus are tricky because while the fruit does change color as part of the ripening process, color alone cannot be used to determine ripeness. Ripeness is determined in citrus by taste, not color. Many citrus turn color before they are actually sweet. For example, Valencia oranges begin turning orange in spring but are still sour when eaten early in the season. They don't fully ripen in this area until late May through summer. So while bright color is an indicator of ripeness, the only reliable way to determine sweetness is to pick one and taste it.

Ripeness can not be determined by color alone; pick and taste to be sure.

Alternately, hot days with warm nights will cause citrus rinds of many oranges to become tinged in green a second time even though they are sweet and ripe inside. Again, the only reliable way to determine ripeness is through a taste test. Oranges and other citrus should feel heavy with juice and have some indication of a good color change but you'll need to taste one to determine sweetness. The color of the peel alone is not a good indicator of ripeness.

For citrus like lemons or limes that are tart when ripe, the key to ripeness is the juice, rather than the color of the peel. The fruit can be either green or yellow. Lemons are picked from the time they begin to ripen and show a yellowish cast, to the full ripeness of bright yellow peels. Conversely, (depending on the variety) limes are best when the color changes from dark green to a lighter green or are just tinged with yellow. Limes are still edible when peels are yellow but sometimes develop a tint of bitterness at that stage. The key to ripeness of tart citrus fruit is a heavy feel for the size of the fruit and a heady aromatic aroma from the volatile oils.

All citrus fruit should be heavy with juice and should exhibit some color change of the peel, but the only reliable way to determine ripeness is to taste it.

Using Citrus Peel to Tantalize the Taste Buds

Citrus peel is not only used for determining variety and ripeness, the peel itself has an exquisite flavor. It's loaded with delicious and aromatic volatile oils.

This brings us to the kumquat. People who are unfamiliar with kumquats will suck the juice and discard the peel and proclaim that they don't like kumquats. They are unaware that the sweetness and flavor is packed into the peel! Kumquat pulp is sour and seedy. It's the peel that's so "a-peel-ing"! (You can't read an article about citrus peels without one bad pun!) To eat a kumquat, pop the whole thing in your mouth. If it's ripe, you'll get a flavor explosion of sour from the pulp, then a sweet, intense, orange-kumquat flavor that comes from the peel. If it's still too sour for you, kumquat lovers suggest nibbling the rind with just a tiny bit of pulp so you get more sweet peel in proportion to sour pulp. Tasty!!!

Kumquats aren't the only citrus where we eat the rind. Think lemon zest, lime zest, candied orange peels, limoncello liqueurs, marmalades, and other citrus flavored foods. All peels! Before tossing citrus peels, think about all the amazing things that can be done in the kitchen with those peels.

One Last Peel-Related Bit Of Trivia

What do you do with left over citrus peels? When you're done, they're great in a traditional compost bin, but don't put them in your worm bin. Worms don't like large amounts of citrus peel. Who knew?

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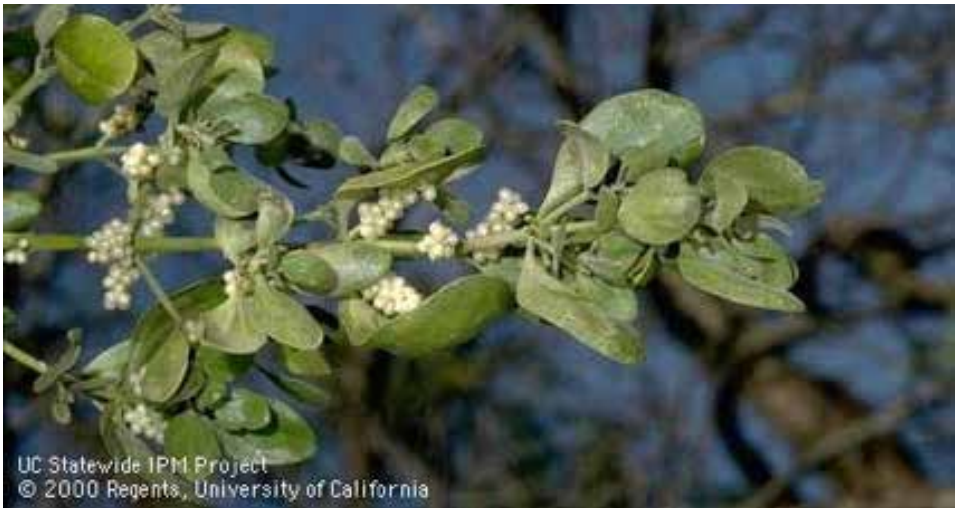

Mistletoe: More than a Kiss

By Joan Goff, Placer County Master Gardener

The tradition of stealing a kiss under the mistletoe is odd, if you think about it. How did this get tied to Christmas? Many strange and diverse uses for this plant have come down through the ages, mostly sharing positive overtones. Mistletoe became a weapon and killed a beloved Norse God, only to become their symbol of peace and friendship. Greek lore tells us the mythical Greek founder of Rome uses a "golden bough" (European mistletoe looks golden in winter) to find his dead father who teaches him how to create ancient Rome. Ancestral and modern Druids worship this sacred plant, giving it even greater powers when found in an oak tree. British lore bestows protection from disease, infertility, fire and lightening in homes where mistletoe is hung. History is filled with many more mistletoe beliefs but our Christmas kissing tradition comes directly from old England. Its history may be rich and complex, but what is clear to me is that mistletoe is not exactly what I thought it was.

As a child I learned there was good and bad, at least morally. As a gardener I have learned nature has no good or bad. There are plants to hate or love, but I understand now that they all have their place in the ecosystem. I have hated mistletoe since I learned of its parasitic nature and worried my trees would become "infected". Reading ***Secrets of the Oak Woodlands*** by Kate Marianchild, I learned to my astonishment that the American mistletoe in our area (*Phoradendron sp*.) is only semi-parasitic, is not poisonous, and is an important habitat species for birds and butterflies. It rarely kills the tree that is hosting it. Academic horticultural research backs up Ms. Marianchild's findings. (By the way, the book is wonderful.)

While the UC Integrated Pest Management Mistletoe Pest Note does not list mistletoe's good qualities, it does provide information for those who wish to rid their trees of it. But beware! Reducing the number of these plants in an area will have an adverse effect on the birds and butterflies. Birds not only eat the berries but nest in the clumps of mistletoe. Furthermore, the benefits of mistletoe are not limited to the birds and butterflies. It has been used for centuries to treat illnesses and is being studied now as a cancer killing agent. And while it should not be eaten, the American species is not poisonous. It can give you a nasty stomach ache but that is about it. The European species *Viscum album* is poisonous, but not often lethal.

While I still have negative views on parasitic organisms, I have a new appreciation of mistletoe.

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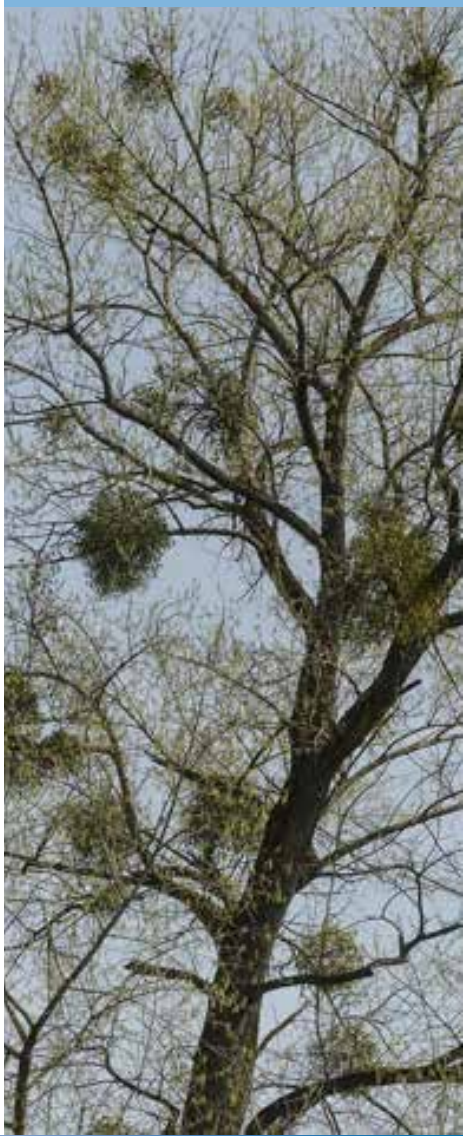


Growing Ferns Indoors

By Jan Birdsall, Placer County Master Gardener

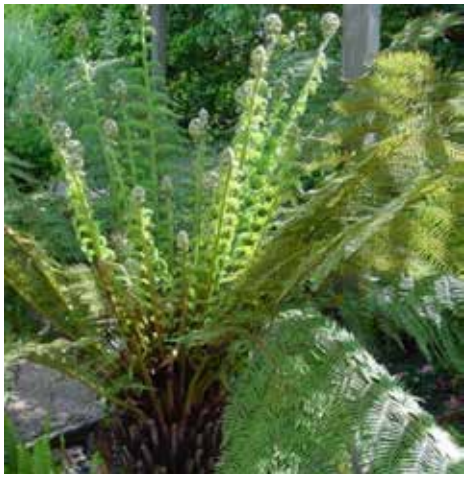
Ferns have been around since the age of dinosaurs. They are certainly one of the oldest plants in the world, thriving and growing in different types of environments. As a houseplant they have been cultivated for centuries. In 1795 Capt. William Bligh of the Mutiny of the Bounty fame returned from the West Indies to England with 37 species of ferns. During that time tropical plants were highly prized and owned only by the affluent. Their use in the home continued to grow over time. In the 1960s-70s houseplants, especially ferns, enjoyed a very popular revival. Nowadays ferns are easily available and reasonably priced for both outside and inside use. This article deals with tropical or semi tropical ferns and here are the important factors to know when growing them indoors:

• When buying, make a careful selection by reading the plant tag and any other resource thoroughly. Some ferns are extremely temperamental and require a lot of attention to thrive.

• Ferns should be grown in any type of non-porous pots, but not clay. Clay pots release moisture faster, drying out the plant. If the fern's roots are filling the pot, repotting may be required every few years in the spring. For fern rooting soil, UC Davis Agriculture Department recommends one-third peat moss, one-third perlite, and one- third redwood mulch.

• Tropical ferns are more likely to grow best indoors in medium light in an east facing window or a few feet from a west or south facing window. Too much light dries the fern out and causes the loss of their leaves. Too little light stunts the growth and yellows the leaves. Stay away from a location that is in direct sunlight. If there is a lack of adequate light, place an incandescent light above the fern for 4 to 6 hours a day.

• All ferns love moisture and should be provided with humid conditions. Not only is the weather in Placer County routinely "dry" with very little moisture or humidity, but central heating tends to dry out the air even more. Some suggestions to increase humidity include standing the ferns' pots on trays of damp pebbles or clay granules (do not let pot stand in water), or using a humidifier near the fern 4-6 hours/day (avoid daily use). Make sure the fern has abundant space around it for air to circulate. Misting is generally ineffective and encourages foliar leaf spot diseases. Since it is difficult to improve humidity, it might be best to concentrate on proper watering to prevent moisture stress.



Tree fern. Photo by Linda Dodge, Dept. of Plant Sciences, UC Davis

• Watering on a consistent basis with the soil evenly moist but not wet is extremely important in maintaining a humid environment. The higher the room temperature, the more often you will have to water. Hanging ferns near the ceiling may cause them to dry out faster, since heat rises. Use your finger to check the surface of the soil in the pot. If the top of the soil feels dry, then it is time to water. Use room temperature water that is not softened or treated since softening adds salts or minerals which will eventually damage the fern roots. Water just to the point that the water is coming out of the bottom holes of the pot. Drain excess water from the catch tray so that the pot is not standing in water. The fronds will turn yellow and wilt when overwatered which can lead to root rot and fungal diseases. Underwatered, the leaves will wilt and the fern may not recover.

• Ferns do best in temperatures that are consistently 65^0 to 75^0 F. They will survive in 50^0 to 60^{0}F room temperature but will probably not flourish.

• Ferns are known to have modest nutrient/fertilizer needs. Fish emulsion is a good fertilizer. However, houseplant fertilizers can be used. Either product should be used sparingly at half strength. You should fertilize only when the plant is actively growing, usually April through September. Signs of overfertilizing are browning and drying which begin at the tips and move up the affected fronds. Under fertilizing is evidenced by unusual pale green foliage.

So, let the fun begin by exploring the numerous types of semi tropical and tropical ferns available for you to buy. Bringing some of these delicate, exotic, and decorative plants into your home will brighten your winter and bring the outdoors inside.

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Decreasing Water Runoff

Part 4 in the series
"From Lawn to Water-Smart Landscape"

By Annette Wyrick, Placer County Master Gardener

In our dry summer climate, most of the gardens are irrigated. It is wise not to waste a drop! In winter we can experience very wet periods that lead to flooding. Maximizing the amount of water moving into the soil is helpful in both situations. Why is it important to increase water infiltration in your landscape? In dry periods, increasing water penetration of irrigated soils increases the water available to plants. This precious resource is wasted if it is not efficiently moving into the soil. In wet periods, excessive water flowing to the storm drain system may pick up contaminants such as fertilizer, pesticides, and auto fluids. Water moving slowly into the soil allows for filtration of debris and a reduction in pollutants. These toxins may be absorbed by plants growing onsite. Some of the water not used by the plants will percolate into the ground, replenishing our ground water supply.

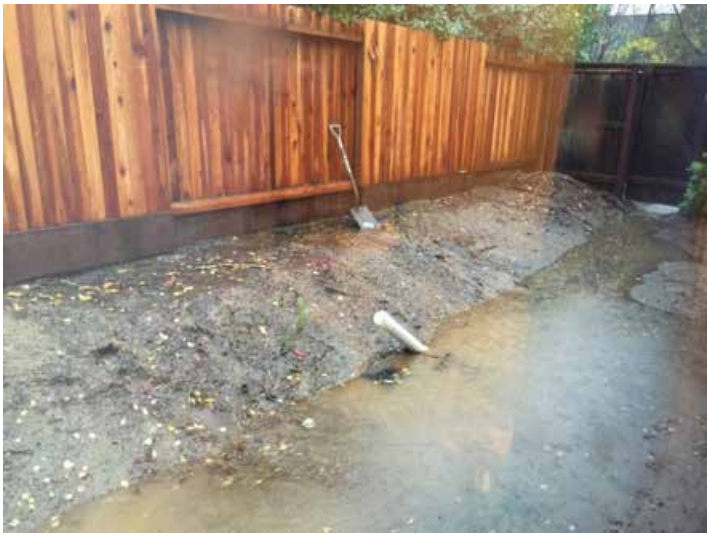
Soil improvement and landscape design are the tools to increase this water infiltration. A very simple task can bring about a positive change; just add compost to your soil. Compost is organic matter that will improve soil texture and structure, allowing an increase in the soil's water holding capacity and therefore the amount of water available to plants. Compost will also increase the soil fertility. Your plants will thank you!

Another easy garden activity that will protect your investment in the soil is applying mulch. Irrigation and rain hitting bare soil can lead to soil erosion and compaction. This will negatively affect the amount of water the soil adsorbs. Plants also act like a mulch to protect the soil surface. Increasing the vegetative layers in the landscape reduces the impact of water hitting the soil. The vegetative layers include tree canopies, shrubs, and ground covers.

If you have a new garden, or are redesigning a garden, there are water-saving features and hardscapes to consider. A planting bed located between a lawn and nonpermeable surface is a good way to capture any overspray and runoff from overhead lawn irrigation. If plants are chosen properly, this planting bed may not need any additional watering. Rain gardens, swales, and berms allow collections of water that will slowly infiltrate the soil instead of running toward the storm drain. Water runoff from the roof may be collected in rain barrels for later use. A variety of pervious patio and walkway materials exist such as decomposed granite, gravel, and even permeable pavers and concrete.

Where does the water flow or pool on your property? Slow, break up, and spread the flow of water to benefit your property and the environment.

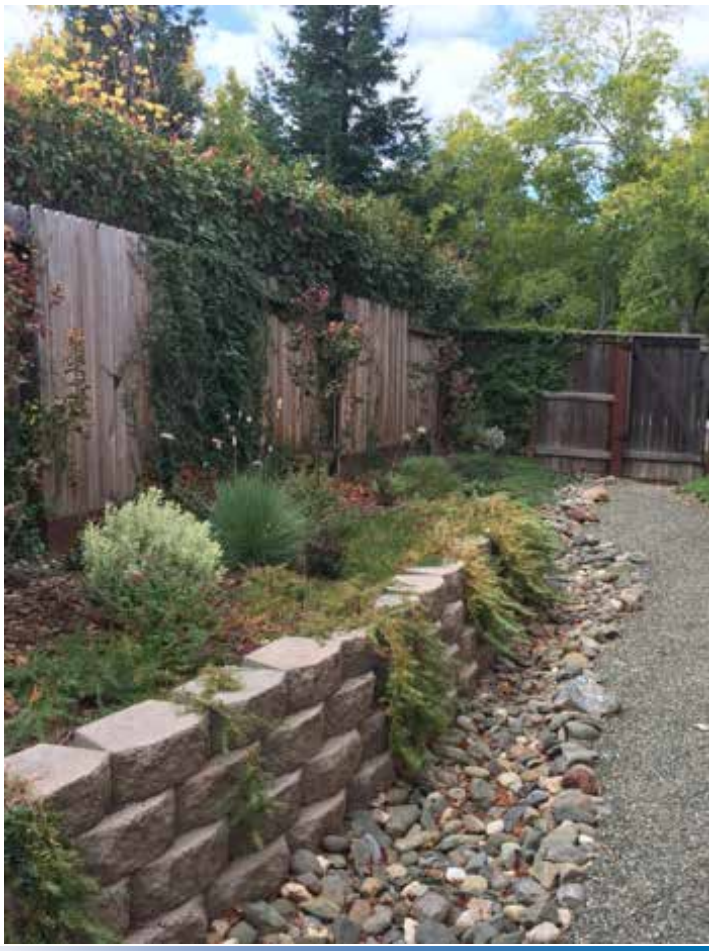
See references and additional photo on next page.

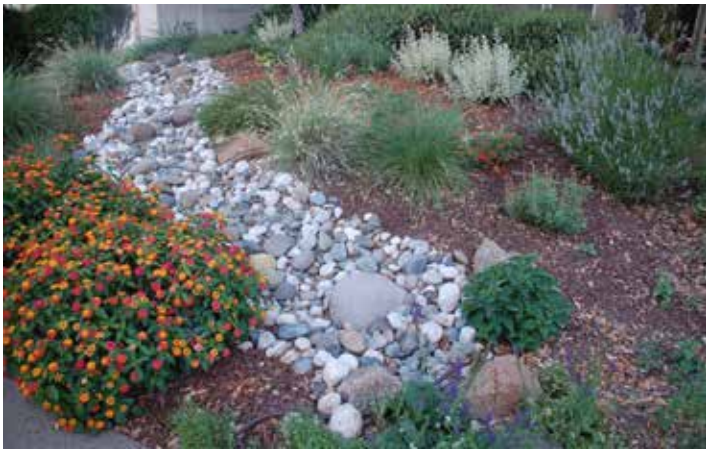


Before (above): High clay content soil was not planted or covered with mulch. During heavy rain, the water pooled around a drainage basin which took the storm water to the street.

After (below): A permeable gravel path and rock swale allow water to percolate into the ground on site. The amended soil was planted with various vegetation layers and covered with mulch, which reduces the impact of rain.

Photos by Annette Wyrick





"Rethink Your Yard" contest winner Julie Long created an angled dry creek bed across her yard (above) to serve as a focal point as well as capture rain water and allow it to percolate into the soil to help maintain the water table.

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Garden Myths: Gravel in Planting Pots

By Trish Grenfell, Placer County Master Gardener

Many folks believe that placing a layer of gravel in the bottom of pots before planting will not only prevent soil from spilling out the hole, but will improve water drainage through that hole. We all believed it and we all did it.

But it's a myth. Yes, water runs through gravel faster than potting soil, but soil holds water much better than gravel. Water will not run immediately through the soil into the gravel. The planting medium acts like a sponge; it absorbs the water until it is completely saturated and will not release a single drop of water until it reaches saturation. If you placed a sponge on top of gravel and then slowly poured water into the sponge, you would observe the gravel staying dry as you pour. The water isn't going anywhere, not spilling to the side or the bottom. It continues to fill the sponge until it reaches the point where it can hold no more; the available air space in the sponge is completely gone. It is full of water. Did the gravel make the sponge drain faster? No. Gravel in the pot's bottom does not prevent the soil above it from becoming saturated with water. According to researchers, the coarser the underlying material, the harder it is for water to move through the interface of soil and material. If you use pot shards over the drainage holes, imagine how hard it would be to drain the soil. Imagine what happens in a container lined with pot shards! Think in terms of coffee filters and fine screens if you wish to discourage soil from leaking out the pot hole(s).

Note that the soil holds the water just as the sponge did; the weight of the water drives it to the bottom of the sponge/soil. So your gravel-bottomed pot now has a soggy soil bottom which sits higher in that pot and is closer to your plant's roots. Depending on the size of the pot and how much gravel was added, the roots may now be sitting in that bog. Basically, you have created a smaller pot with a possibly crowded plant, sitting in very wet soil.

Your gravel error has actually placed your plant in harm's way. Wet soils create root rot, leaving little space for air to get to the roots. Plants rarely recover from root rot.

If you seek excellent drainage for your potted plant, buy or make a good quality potting medium that incorporates organic material. These "soilless mixtures" which instead of soil contain various combinations of vermiculite, peat moss, coir fiber, as well as either perlite or ground pine bark to improve drainage or aeration. The recipes vary depending on the plant material being grown.

Note: For purposes of simplicity, the word "soil" in this article was used to describe the soilless planting medium. Garden soil rarely is adequate for potting.

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Hotline FAQs

Do you have gardening questions?

Call the Master Gardener Hotline in your county

Nevada Co. 530-273-0919

Placer Co. 530-889-7388

I'm thinking of planting a cover crop in my vegetable garden; what is the best thing to plant?

by Pauline Kuklis, Placer County Master Gardener

The first thing to do is decide what you would like to accomplish with your cover crop. Some of the more common reasons for planting a cover crop include:

- Reducing soil erosion,
- Keeping weeds under control,
- Adding (fixing) nitrogen to your soil,
- Creating plant material for composting or turning into the soil,
- Loosening up soil that has become compacted.

To soften compacted soil, select a crop with a deep root structure, such as Sudangrass. To fix nitrogen in the soil, plant a legume crop such as peas or fava beans. Cornell University has a cover crop decision tool to help you select the right cover crop: http://covercrops.cals.cornell.edu/decision-tool.php

Below are additional resources to help you learn more about cover crops:

- Cover Crops for Vegetable Growers, Cornell University College of Agriculture and Life Sciences has lots of information about what cover crops to plant during different seasons: http://covercrops.cals.cornell.edu/
- University of California ANR publication #3517, "Cover Cropping for Vegetable Production" contains a wealth of information for the vegetable gardener (cost is $25.00). Order from http://anrcatalog.ucdavis.edu/
- The UC Davis Cover Crops Database is very informative: http://asi.ucdavis.edu/programs/sarep/research-initiatives/are/nutrient-mgmt/cover-crops-database1

Fava beans is the cover crop in this vineyard. Photo by Chuck A. Ingels, UCCE

Cockroach Questionnaire

By Bonnie Bradt, Entomologist and Nevada County Master Gardener

Throughout the world the cockroach is feared, despised, and treated with revulsion. Millions of dollars are spent annually, trying to eradicate this insect. What do you really know about this fascinating (??) creature?

Average score for this test is 6 out of 10. Let's see how you do!

1.The earliest intact writings about cockroaches refer to using them for what purpose?

- Medicine
- Aphrodisiacs
- Food
- Clothing

2. According to the fossil record, modern cockroaches first appear in what ancient period?

- Carboniferous
- The Middle Ages
- Cretaceous
- Jurassic

3. Cockroaches are edible.

- True
- False

4. Which country is the home to the world's largest species of cockroach?

- Australia
- Belize
- Madagascar
- Egypt

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Bergenia crassifolia, Pigsqueak

by Lynora Sisk, Placer County Master Gardener

You may have seen this beautiful pink flower blooming in the winter and early spring but you might not know its unusual common name—Pigsqueak. I wondered how in the world they came up with that name. Apparently when you rub one of the leathery leaves between your thumb and finger, it makes a noise that sounds like a pig squeaking. Amazing!

Bergenia crassifolia is a large-leaved perennial native to northwest China and Siberia, but it does very well in our California gardens. It forms dense, slowly spreading clumps of foliage. The dark green leaves can grow up to 10 inches long and are sometimes used in floral arrangements. The dense clusters of flowers will bloom as early as December in warmer climates and their flower stalks can reach to 18 inches tall. Pigsqueak is one of the UC Davis Arboretum All-Stars for attracting beneficial insects to your garden.

This All-Star can be grown in shade to part shade and is a perfect groundcover for edging paths or walkways. *Bergenias* should be planted in fall or early spring and will spread to 20 inches, so you'll need to give them some growing room. Plants naturally spread by rhizomes but can also be divided or propagated by seed. Pigsqueak will grow in dry shade and poor soil but prefers moist conditions. During the summer months you may need to provide a layer of mulch to keep roots moist and cool.

If you're looking to bring some color into your winter garden, *Bergenia crassifolia* will certainly brighten any garden corner and provide contrast to other plants all year round.

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5. When male cockroaches are scarce, females of some species are able to reproduce without them through a process called parthenogenesis. What is unusual about the offspring when this occurs?

- The offspring will be male
- The offspring will be born dead
- The offspring will be sterile
- The offspring will be female

6. One sure way for the average person to know that they have cockroaches is the observation of oothecae in their homes. What are oothecae?

- Molted wings
- Egg cases
- Webs
- Paper nests

7. The Cuban cockroach is sometimes kept as a pet. What is the colorful, fruity name that it is frequently called?

- Red apple cockroach
- Green banana cockroach
- White coconut cockroach
- Brown kiwi cockroach

8. Cockroaches glow fluorescent green under a black light.

- True
- False

9. What is the diet of most cockroaches?

- Sugars only
- Meat only
- Anything organic
- Anything

10. Cockroaches live and reproduce on all seven continents.

- True
- False

See answers on next page.

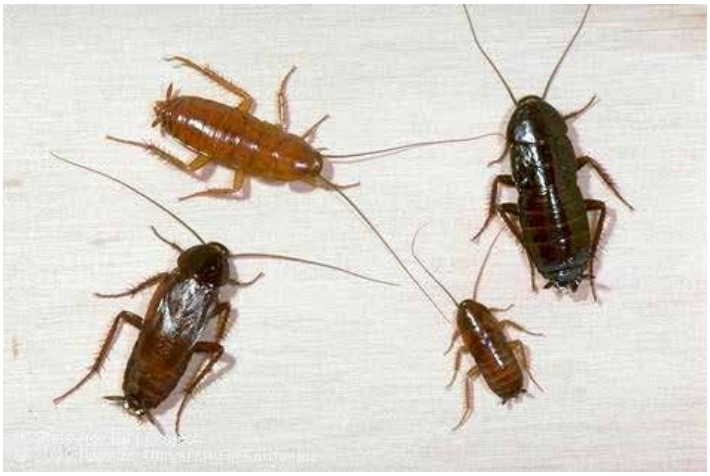
Cockroach Questionnaire Answers

1. **Medicine.** Pedanius Dioscorides, an early Greek physician, prescribed in his writings the use of ground cockroaches for open sores, earaches, and female problems. Aren't you glad you aren't an early Greek? Anyone who answered "clothing"…. That's beyond ICKY.

2. **Cretaceous.** While fossils have been found of insects that are related to the modern cockroach in rocks from the Carboniferous era, the first modern cockroach did not appear until the Cretaceous period. Their evolved form is so successful that very few changes have taken place through time. You would be able to look at a fossil specimen and it would look just like a modern cockroach to the untrained eye. Long lasting little buggers.

3. **True.** Most insects are edible. Cockroaches are not poisonous but are not a very popular food item around the world. There are some Thai recipes that use cockroaches and various other insects. No wonder Thai food is so killer spicy.

4. **Australia.** Queensland, Australia is the home to the giant burrowing cockroach. This is the world's heaviest cockroach and can weigh in at over 1 oz. and be over 3" long. There have been reports of roaches 6" long. Locals in this area will sometimes keep this animal as a pet and they are known to live as long as 10 years in captivity! Well, if you're allergic to dogs and you don't like wallabies, and you REALLY want a pet… Oh Boy!!



Pictured above are Oriental cockroaches; below is an adult Madagascar hissing cockroach.
Do you have questions about or problems with cockroaches? Read more about them at http://ipm.ucanr.edu/PMG/PESTNOTES/pn7467.html

5. **The offspring will be female.** Parthenogenesis is a form of reproduction that occurs in females without the assistance of a male for fertilization. The resulting offspring will always be female. These offspring are usually healthy and fertile. When males become available a female will go back to fertilizing with male assistance. Handy!

6. **Egg cases.** Oothecae are the egg sacs that are dropped by female cockroaches. They hold an average 15-20 offspring. The word comes from the Greek word "ootheke" which means ovary.

7. **The green banana cockroach**. The green banana cockroach is a small light green cockroach with yellow stripes on the sides. It is found on some Caribbean islands and in the American states that border the Gulf of Mexico. They are not usually found indoors, and can climb and fly well. They are often kept as pets due to their attractive coloring. This absolutely, completely demonstrates that beauty is in the eye of the beholder.

8. **False**. While there are other insects that do glow under black lights, cockroaches are not one of them. Stories that purport glowing by cockroaches are just urban myth. On the other hand, if you're out in the desert at night, you can look for scorpions that way. If you want to look for scorpions.

9. **Anything organic**. Cockroaches will eat anything that is organic. That includes any human food, paper, wood, and body fluids. Basically a cockroach will eat anything that is not metal. They will eat almost anything regardless of scent, texture, age, and taste. And they will drink the water off dishes in the cabinet if you don't dry them thoroughly before putting them away. A Hawaiian friend of mine taught me that. They have a bigger problem than we do.

10. **False**. Antarctica is the only continent that does not have cockroaches. It also does not have flies, fleas, ticks, centipedes, or millipedes. Any cockroach that is found on this continent hitched a ride on a boat or airplane. It will die very quickly after arriving. As I probably would. But it does have penguins.

BotLat: Find Out What Those Weird Plant Names Mean

by Peggy Beltramo, Placer County Master Gardener

Plants with winter interest or historical connections are the focus of this BotLat column.

Let's start with mistletoe, which is long associated with winter decorating, dating back perhaps to the Romans. The BotLat name for this plant, *Phoradendron leucarpum*, is interesting. The genus comes from Greek. *Phor* means 'thief' and *dendron* indicates 'tree'. Since mistletoe is a parasite, it actually does steal nutrients and water from its host tree. The species name *leucarpum* is equally descriptive. *Leu* indicates the color 'white' and *carpum* signifies 'fruit'. Despite its gristly qualities, mistletoe has been associated with love, fertility, and peace in many cultures for centuries.

Poinsettias are common at Christmas but have other cultural significance as well. The common name of this plant celebrates John Poinsett, the first ambassador to Mexico, who introduced the plant to the U.S. The BotLat name of this plant, *Euphorbia pulcherrima* recognizes Euphorbus, a Greek physician, and the plant's beauty, since *pulcherrima* is Latin for 'most beautiful'.

That's it for this issue! Read your plant labels. There is a lot to learn.

Warning! Mistletoe harms the tree it has invaded. For more information go to: http://ipm.ucanr.edu/PMG/PESTNOTES/pn7437.html

BotLat Corner

Events Calendar

Nevada County Demo Garden
1036 W. Main St., Grass Valley
Placer County Demo Garden
11477 E. Ave., Auburn

All events are free unless noted otherwise

February

February 3
10:00 am - noon
Plan It: 12 Month Gardening
Grass Valley Elk's Lodge
109 S. School St.

February 10
10:00 am - noon
Making More Plants: Hardwood Cuttings
Grass Valley Elk's Lodge
109 S. School St.

February 10
10:00 am - 2:00 pm
Master Your Garden: Start with Soil
Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville
Small fee; register at 916-746-1550

February 17
10:00 am - noon
Wasps of Nevada County: Friend, Foe or Both?
Grass Valley Elk's Lodge
109 S. School St.

February 24
10:00 am - noon
Native Plants Have a Lot to Offer
Grass Valley Elk's Lodge
109 S. School St.

Nevada County events in green boxes

Placer County events in yellow boxes

March

March 3
10:00 am - noon
Water Wise Gardening
Grass Valley Elk's Lodge
109 S. School St.

March 10
10:00 am - noon
Edibles and Herbs
Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville
Small fee; register at 916-746-1550

March 10
10:00 am - noon
The Amazing Mason Bees
Grass Valley Elk's Lodge
109 S. School St.

March 17
10:00 am - noon
Totally Tomatoes
Grass Valley Elk's Lodge
109 S. School St.

March 24
10:00 am - noon
Gardening Smart Not Hard
Grass Valley Elk's Lodge
109 S. School St.

March 31
10:00 am - noon
Practical Irrigation in Nevada County
Demonstration Garden
NID Grounds
1036 W. Main St., Grass Valley

Find Events on our Websites:
http://pcmg.ucanr.org/
http://ncmg.ucanr.org/

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 Washington State University. 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.

35 Years of Serving Placer and Nevada Counties

Production Information

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Have a Gardening Question?

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Master Composter Rotline
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