

# Central Coast Leaflet

California Rare Fruit Growers - Central Coast Chapter Newsletter  
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## 2010 The Year of the Dragon Fruit



Dragon fruit, also known as pitaya or pitahaya, is the beautiful fruit of a rather ungainly looking plant belonging to the cactaceae family. There are three species of dragon fruit in the genus *Hylocereus* and one species in the genus *Selenicereus*. Dragon fruit is especially popular in the Asian culture, but it is actually a native of South and Central America where it was known to be eaten by the Aztecs in the 13<sup>th</sup> Century. It was introduced to Viet Nam by the French a little over 100 years ago and it became a special treat to be eaten by

royalty and very wealthy families.

The dragon fruit flesh can be white, red, or magenta in varying degrees depending upon variety. The red fleshed varieties contain lycopene which is a natural antioxidant known to fight cancer and heart disease, and to lower blood pressure. It even helps lower glucose levels in diabetics. Despite its health benefits, delicious flavor, and amazing appearance, the fruit has gone quite unnoticed until fairly recently, but today it is the leading fruit export of Vietnam! It is becoming so popular that even drink companies like Snapple, Sobe, and Tropicana are incorporating it into their juice.

The plant likes tropical temperatures and plenty of moisture—even though it is a cactus! Don't think Tucson when you consider the right environment for your pitaya—think Costa Rica, Viet Nam or Thailand! It also only blooms at night and the blossom lasts just one night (or maybe until noon if you have a cloudy day). This makes pollination a rather tricky process—one that you will likely have to do by hand in a non-commercial setting. Not only that, you may need to cross-pollinate them, so you probably need a “pollination buddy.” Since you will likely have to grow your plant indoors or in a green house, hand pollination is really a given. There are self-pollinating plants, but in a closed environment even they often fail to set fruit because they can't self pollinate properly.

You can start your plant from seed, but it takes quite a long time to get a mature plant. Cuttings are the best way to get a plant started. Like other succulents and cacti, if you break or cut off pieces of a mature plant it will attempt to put down roots and start growing. Cut a section of a mature pitaya vine (stem) and plant it directly in the ground or suitable soil medium. The cutting may begin rotting before it successfully starts growing, but with a little luck you will be growing pitaya cactus plants quickly, without having to start from seeds. You should expect, if your pitaya section was large enough, blooms in 6 - 12 months - a significant savings in time from starting from seed. (Our wonderful Dr. Joe Sabol is attempting to grow enough cuttings for our whole Central Coast Chapter. This is a photo of his cuttings.)



Much of the information here can be found on the Pine Island Nursery website at: [www.tropicalfruitnursery.com/dragon/index.htm](http://www.tropicalfruitnursery.com/dragon/index.htm) and they also have a large variety of plants to choose from—even one white fleshed cultivar called Alice—named after CRFG member, Alice Snow.

CRFG member Edgar Valdivia of Simi Valley is probably the most renowned non-commercial grower of dragon fruit. While we are celebrating the Year of the Dragon Fruit, Edgar celebrates it every year! He loves to share his knowledge and has his own website packed with information which you can see at: [www.edvaldivia.com](http://www.edvaldivia.com)

## November Meeting

Notes by Larry Hollis



Before the meeting got fully underway Art DeKleine gave us a demonstration on how to open a pomegranate and quickly remove the arils by whacking it with a wooden spoon, an impressive trick.

The meeting started with an introduction of SLO Hi teacher Erin Thompson and four of her students who were to teach us air layering. They were all given thank you gifts. Also our chapter presented SLO FFA a check for \$150.

(Teacher, Erin Thompson accepts the check in the photo on the right by Joe Sabol.)

The next three meetings were announced.

Joe Sabol invited everyone to join him at Cal Poly to participate in the Ag Leadership program by acting as audience members for the speakers. He also spoke about deciduous fruit trees flowering in November and showed plum branches in full bloom.



Norm Beard, from the Santa Barbara/Ventura Chapter, announced that he was selling 44 lb. bags of Azomite, a naturally occurring trace mineral supplement as well as clear plastic air layering "capsules". He invited everyone to go to his place on the third Saturday in January for a plant sale.



Ron Blakey announced that some local folks were trying to organize a garden/orchard food sharing program.

Dave Christie and his student teachers then demonstrated air layering followed by the members of the class air layering feijoa and/or hibiscus plants. (That's student teacher Cindy in the photo on the left taken by Joe Sabol.)

A group photo was taken (see photo below by Joe Sabol) and the meeting adjourned.



## December Meeting



A “Blustery Day” didn’t keep our stalwart members away from the Annual Potluck and Plant Raffle Extravaganza on Saturday, December 12, 2009. Thanks to the “in” we have with PG&E through Marv Daniels, we were once again able to hold the gathering at the PG&E Visitor Center. The food was fabulous. Special thanks goes to Jill Sabol and Gloria DeKleine for making the ham and turkey breast. (John Crowe and Dick Pottratz sure seem to approve of the turkey and ham!)

Melinda Lynch, Lecturer in the Horticulture and Crop Science Department at Cal Poly and owner of the local Floral Design Studio gave a wonderful demonstration on how to make a fresh holiday centerpiece. Her star pupils were our chapter co-chairs, Larry Hollis and Patti Schober. As you can see by the photo, they were apt students. Larry gave his creation to Evelyn Ruher to thank her for all the years she has held one of the most important jobs in our chapter—that of making sure there is coffee for every

gathering!

In spite of the weather, the plant raffle was a huge success. Marv and Pet Daniels and their crew braved the wind, rain, and chill to place small plastic bags on each plant where those people wishing to get a plant could place their ticket. This made the process go much faster. Thanks to you all! As you can see by the photos (again, courtesy of Joe Sabol) everyone had a great time!



Evelyn loves her fresh centerpiece. Larry can’t believe he created it!



Lots of red! Food, fun, and conversation—it doesn't get much better than that! It was worth the trip out in the rain!

Robert and Carol Scott arrive with a **carload** of exotic fruiting plants! Marv and Pet even look happy about it!



This is the best idea yet for streamlining a plant raffle!

## Remineralizing with Local Rock Dust

By John Crowe

On September 19, 2009 I attended a Santa Barbara CRFG meeting where they had a presentation on a product called AZOMITE<sup>®</sup>. That product is a mined mineral from Utah and one of its applications is for remineralizing soils. Remineralization is the process of adding a wide array of minerals and trace nutrients to the soil which reportedly results in larger plants and more produce with higher nutrients. This meeting got me looking for more information on the web and several web sites recommended using rock dust from your local quarry to remineralize your soils.

This article describes experiments with rock dust obtained from CalPortland in Garey near Santa Maria, CA. The facility is an aggregate quarry that mines the riverbed containing a mixture of many kinds of rock. The rock dust is a by-product of breaking rocks to produce building aggregates. The quarry has a large pile of this rock dust and the older sections have weeds growing on them. I considered this a good sign indicating that the material did not have toxic levels of some minerals.



The size analysis of the material I obtained from the CalPortland for January through September 2009 shows that 100% of the material passed a #4 (4.75mm) mesh and around 15% passed a #200 (75um). Some months show more dust and some less with a range from 11.8% to 17.7% passing #200. For reference #200 is the consistency of Portland cement. The quarry QA person said a mineral analysis was performed long ago but was not currently available. He did say that every kind of rock was represented in the dust. I obtained two tons (2.05t) of rock dust for \$33.33

(\$14.95/ton + tax). (The photo shows the size of the material on a penny.)

### Experiments

Visually examining the rock dust using up to a 10x loupe shows many types of rock. A settling test was performed consisting of filling a jar with a sample of rock dust and water. The jar was shaken and then left to settle and dry out. The results appeared to confirm the quarry's size analyses for fine particles.

The rock dust weighed an average of 14.4 ounces per cup.

### Growth Experiment

There were two primary purposes to the growth tests. First was to verify the rock mix was not toxic to plants. The second was to determine how much might be added to the vegetable garden and fruit trees for optimum results.

The growth experiment was set up consisting of garden soil with varying amounts of rock dust. Fifteen 1 gallon containers were filled with garden soil and divided into 5 sample sets of three pots each. Three pots were set aside as controls containing only garden soil. The remaining sets were given 1, 2, 3, and 4 cups of rock dust per pot representing 12.5%, 25%, 37.5% and 50% rock dust to garden soil.

The pots were prepared individually so that the amount of rock dust per pot was ensured. Initially all pots were filled with garden soil. To prepare a 12.5% mix, one cup of soil was removed from a single pot, the remaining dirt dumped into a bucket and mixed with 1 cup of rock dust. Then the mix was put back in the pot. The same procedure was performed for all concentrations.

Table 1: Garden Soil and Rock Dust (Black pots)

Container #	Garden Soil	Rock Dust	% rock dust
1-3	8cu	0	0%
4-6	7cu	1cu	12.5%
7-9	6cu	2cu	25%
10-12	5cu	3cu	37.5%
13-15	4cu	4cu	50%

The pots were then put in the garden and placed so that pots with the same concentrations were not put next to each other. For example, pots 1, 2, and 3 were not co-located but had other pots between them and were in different rows. This was done to reduce environmental effects and preference in watering since the pot number cannot be easily seen.



The table below contains the timeline and observations made during the test.

Table 2: Observations and timeline:

Date	Description
20090930	Setup test. Radish seed pack is old, dated 2003.
20091007	Pots with higher concentrations of rock dust do not drain as well those with less rock dust. Pots with higher concentrations of rock dust do not need nearly as much water.
20091010	Half of the radish seeds have germinated and broken the surface of the soil.
20091025	It appears that the radishes with higher concentrations of rock dust are not growing as quickly as those with less rock dust.
20091107	The radishes are all growing about the same regardless of the rock dust concentrations.
20091122	Harvested and photographed the two largest radishes from each set of 3 pot concentrations.



The photo shows the two largest radishes from each pot. The largest radishes came from the 37.5% rock dust mix and the two smallest from the 50%. The taste test was inconclusive as the radishes got scrambled up on the way to the cutting board.

## **Birds**

An observation was been made with rock dust spread around fruit trees and in potted plants. Birds do not like to dig in the rock dust. This was beneficial as birds have persisted in digging around drip emitters and fruit trees exposing the roots. In potted plants they dig out the moist soil. It could be argued the birds were routing out bugs but by the damage it appears more likely they are looking for moist rootlets.

## **Dusting Plants**

Mealy bugs and ants have been a problem in the greenhouse so an experiment was performed sprinkling rock dust on various plants. This test had mixed success. The rock dust appears to discourage both ants and mealy bugs. Rock dust on pomegranate cuttings reduced the mealy bugs so that they were not a problem and it did not seem to adversely affect the plants. Rock dust on a sapote seedling apparently killed it. I had two Makawao sapote seedlings that were doing quite well and were approximately 4" high. I dusted one of them and not the other. The dusted one died in two weeks. It appears that some plants will tolerate dusting and others do not.

## **Composting**

Rock dust was added to a compost tumbler containing unfinished compost. The compost instantly smelled good and earthy but over the next month didn't seem to continue decomposing. The unfinished compost was then added to the vermiculture bin. For the first week the worms did not migrate into the material and I wondered if the sharp split rocks were too sharp for their bodies. However in two weeks the worms had moved into the rock dust enhanced compost and were doing fine.

## **Conclusions**

The growth experiment described above showed that the local rock dust is not toxic in the soil and suggests that it is beneficial but did not produce dramatic results. This may be partially due to mineral availability. Smaller particles are more readily available to microbes and plants, and commercial products are usually processed to a fine powder smaller than 75um. The bulk of the local rock dust is greater than 75um and is not immediately available to the soil microbes and plants. However it will continue to break down to release its' nutrients so the additional benefits may not be seen for some time.

I also draw some conclusions on performing the experiments. Scrambling up the container ordering was not a good idea as it made watering difficult. The pots with higher concentrations of rock dust needed to be watered less since the rock dust reduces drainage. Secondly I should have used a new seed pack. The seed pack was dated 2003 and the seeds did not germinate quickly or evenly.

Finally, CalPortland in Garey quarries the riverbed with a variety of rocks. They also have another quarry nearby in Atascadero where they mine a granite face. The rock dust from Atascadero reportedly turns red when it oxidizes due to the high iron content. Since I add iron to my citrus every year for a chlorosis problem a future experiment is planned comparing the materials from these two local quarries.

## Unsung Hero—Joe Sabol

In November, the San Luis Obispo Tribune solicited candidates for their “Unsung Hero” section to be printed at Thanksgiving. I know that **many** of our members wrote to the Tribune and urged them to feature Dr. Joe Sabol. We’re so proud of you Joe and you certainly deserve the accolades! Following is the article:

“Having a passion is one thing. Having it bear fruit is another. Joe Sabol has shared his passion for fruit trees with thousands of others, and it’s the community that’s reaping the harvest.



Sabol, 69, is a professor emeritus of the Cal Poly College of Agriculture, Agricultural Education and Communication, where he taught from 1972 to 2002.

For more than 10 years, he and others in the Rare Fruit Growers have educated 50 to 100 students at each of about 25 local schools to graft, plant and care for fruit trees. That pencils out to as many as 25,000 young people who’ve learned how to grow their

own food from a tree that not only nourishes the body, but nourishes the atmosphere and the eye. (The photo is of Joe with graft #1000 at SLO High.)

Sabol puts it more simply, saying, “They get a nice tree in the backyard.”

Sabol’s volunteer efforts haven’t gone unnoticed.

“He has everything to give everybody ... he does it all for the pure joy of it,” said Roxy James, who met Sabol through the California Rare Fruit Growers organization.

“Joe Sabol gives time and energy unstintingly to church, alma mater, ex-students, new students, colleagues, senior groups and those in need of his talents,” wrote Bill Mounts.

His list of accomplishments is extensive:

- In 2006, Sabol coordinated the acquisition and shipping of 200 olive tree saplings to Iraq at the request of a soldier serving at Camp Anaconda as a tangible, productive symbol of peace.
- He was part of a team that took cuttings from the floss tree removed in 2007 from the front steps of Mission San Luis Obispo that will end up growing into hundreds of new trees. He’ll

soon help plant saplings propagated from that tree at United Methodist Church and at San Luis Obispo High School.

- Sabol and students have also planted 25 fruit trees at The Laureate School and four citrus trees each at Monarch, Montessori, Sinsheimer and Bishop Peak schools.

Growing up in Southern California, Sabol recalled, “My family weren’t farmers, but always had fruit trees — apricot, peaches, avocado.”

Where does he get the passion for sharing knowledge?

“Teaching is a fun thing to do. I love to teach,” he said, adding that it comes naturally to him. “It’s fun when students who grafted trees with me come back to you.”

At one point, Sabol said, about half of all high school agriculture teachers in California had taken classes with him. Now he encourages retirees to volunteer.

“Possibilities are unlimited. There’s lots of opportunity to help with all kinds of projects — a lot with young people, which is very important to me.”

One of his highlights of the year is training students at the Grizzly Academy, a voluntary five-month residential high school program for at-risk youths from across California. Each student ends up with a fruit tree to take home.

“Kids need a fruit tree to get them back on track,” Sabol said. “Oh boy, it’s very satisfying.”

And it’s very satisfying — indeed, essential — to have enthusiastic individuals like today’s unsung hero, Joe Sabol, to help bring our community into full flower.”

### **“Snail Mail” Newsletter Fees Are Due In January**

If your name appears below, please send your newsletter fees (**\$6 for 1-year or \$25 for 5-years**) for 2010 to our treasurer, Dick Pottratz, at 2430 Leona Avenue, SLO, CA, 93401. If you have already done so—thanks!

**Harry Toy; Mary M. Walcher; Michael Keeling; Priscilla Mikesell; James A. Guse; Clark Bashore; and Dennis Voss.**

### **Dormant Pruning and Saving Scion Wood**

Many of us are pruning our deciduous fruit trees between now and February. Consider saving some of your best shoots for our annual Scion Exchange in February. There are two ways to do this. First, as you prune, save those freshly cut scions! Use healthy wood that is about pencil thickness. Cut them in 10-12 inch lengths, label them, bundle them and put them in a polyethylene bag with one moist paper towel. Keep these in your refrigerator. The second method is, as you prune your tree do **NOT** prune the best scion wood. Leave those

10 or 20 shoots on the tree until **February 19**, the day before our Scion Exchange! You must handle these with great care because the buds may be pushing and be more pronounced and be more likely to be broken off with rough handling. If you do this pruning on the afternoon of **February 19**, follow the same instructions as above, but you will not need to put these in a refrigerator. (**Remember, we can't exchange patented materials!**) If you have more questions about this process, please contact Joe Sabol at 544-1056.

## **Announcements**

**WELCOME NEW MEMBERS:** Matt Knudson, Karen Reinecke, and Kellyne Tani.

**JOIN THE NATIONAL CRFG:** If you **haven't** joined the national organization of the **California Rare Fruit Growers**, why not? With your membership you receive a wonderful color magazine, *The Fruit Gardener*, filled with great articles on fruit growing, news, many chapter activities and contacts. You can also vote on important membership issues and even elect the governing board. Where else can you get so much for a mere \$3.00 a month? That's less than one trip to that specialty coffee place! Dues are **\$36 annually** or **3 years for \$100**. Membership applications are available from **Joe Sabol**. Call him at **544-1056** if you can't find him at a meeting or sign-up online at [www.crfg.org](http://www.crfg.org). (If you prefer, you can save more by subscribing to the magazine by **e-mail only** which is just **\$25** per year!)

**CHAPTER NEWSLETTER FEES:** Please be sure your chapter newsletter fees are current and save our treasurer, Dick Pottratz, lots of work and begging. Newsletter fees are due January 1 of each year. Looking to save some money? Then pay the five-year rate of \$25 and you will save \$5 (since the **annual fee is \$6!**)

**2010 HIGH SCHOOL APPLE GRAFTING PROGRAM:** It isn't too early to begin planning to help Joe Sabol and his reliable crew with this year's grafting program at local high schools. Don't make Joe plead! Give him a call now at **544-1056** and volunteer your time! **It is so much fun!**

## **Calendar of Meetings – 2010**

Meetings are held the **second Saturday** of the month and **begin at 1:30 PM unless otherwise indicated**. Bring a friend, car pool, and, for most meetings, **bring a chair** for all in your party. **No pets** at any meeting, please! Pet Daniels suggests we **bring our own bottled water** to drink, too. What fun it is to be a member of **CRFG!**

**January 9— Annual Pruning Meeting and Plant Sale— Cal Poly Crops Unit Classroom:** Vote for new officers—learn to prune—practice pruning—or buy a plant from the Cal Poly student growers—they usually have a great selection at this meeting. Don't forget to bring your pruning shears, clippers, loppers, handsaws, and gloves. Other well experienced grafters will also be on hand to **assist** novices with first grafts! **Refreshments to be provided by the H-R Group**. This is a heavily attended meeting, so please bring plenty of snacks to share! Thank you!

**February 20—Third Saturday—Annual Grafting Meeting and Scion Exchange—**

**Outside Cal Poly Crops Unit Classroom:** Plan to arrive early for this heavily attended meeting! We will have a scion exchange, and grafting knives, Buddy Tape, and rootstock for sale. Cal Poly students usually have some great plants for sale at this meeting, too!

**Refreshments to be provided by the S-Z Group.** This is a heavily attended meeting, so please bring plenty of snacks to share! Thank you!

**Directions to Cal Poly Crops Unit:** From San Luis Obispo, take the HWY 101 Santa Rosa exit (Hwy 1) towards Morro Bay. Go to Highland Avenue and enter the Cal Poly campus. You will see Mt. Bishop Road to the left. Turn in immediately and park. There is no parking fee on Saturday.

*Central Coast Chapter CRFG Contact Information:* **Larry Hollis**, co-chair, [l\\_hollis@hotmail.com](mailto:l_hollis@hotmail.com) or **704-1513**; **Patti Schober**, co-chair, [iampwolfy@charter.net](mailto:iampwolfy@charter.net) or **467-5097**; **Art DeKleine**, program chair, [adeklein@calpoly.edu](mailto:adeklein@calpoly.edu) or **543-9455**; **Joe Sabol**, publicity, [jsabol@calpoly.edu](mailto:jsabol@calpoly.edu) or **544-1056**; **Dick Pottratz**, treasurer, [pottratz@sbcglobal.net](mailto:pottratz@sbcglobal.net); and **Lennette Horton**, newsletter editor, [handynana@gmail.com](mailto:handynana@gmail.com) or **474-6501**.