



# FROM THE PREZ...

Dear FCSS Membership,

We are all experiencing a new moment in human history, something that none of us has ever lived through before. It's a scary time but we will get through this.

We might just be a club of plant enthusiasts but we are also a community, and communities come together in uncertain times. It's the friendships we have formed in the club that will bring us joy during this time. Stay in contact with each other to make sure everyone is doing well. Remember a phone call can brighten someone's day.



We hope everyone stays healthy and that this pandemic passes quickly so that we may get back to our club meetings. In the meantime the club is still running and will be bringing you plant content through email, Facebook and Instagram

We are asking for your help during this time. Send us plant related articles and pictures you may have. Take photos of your garden and plants to share with us, anything you think people would like to see. We will post them so our membership can see and not be deprived of plants. Please send your items to my email: [rob\\_scott85@yahoo.com](mailto:rob_scott85@yahoo.com)

On to some great news. The Fresno Home & Garden Show was a huge success! We were thinking the event would be smaller this year but we still had good crowds. The club brought in 11 thousand dollars this year! A full 2 thousand more than the previous year. We couldn't have done this without the help of some very dedicated club members. We had a few new faces join us during the event and it was wonderful to get the extra help. Everyone worked hard and it paid off. Thank you!

This was also the first event the club got to use its new barcode system for purchasing plants. Like anything new we had a few hiccups at the beginning but everything worked out perfectly. Check out was fast and simple. A huge thank you to Peter Beiersdorfer and Jaan Lepsen, who helped me to get the barcode system up and running. It took months and lots of work but we did it.

We will continue to use this barcode system for all future plant sales. We are researching new devices that will further help speed up the checkout.

Speaking of future plant sales, our Annual Plant Show and Sale is scheduled for May 30 and 31. We are currently still planning for this date but are not optimistic. The board is assessing the situation as time goes on and will let the membership know what will happen.

Though we can't currently meet, just remember it's for the best. We must all do everything we can to keep ourselves and others healthy. Look for emails and find us on Facebook and Instagram to get your plant fix.

Facebook: Fresno Cactus and Succulent Society

Instagram: [fresnocactus\\_succulentsociety](https://www.instagram.com/fresnocactus_succulentsociety)

Thank you,  
Robert

# To Kill a Mealy Bug

By Elton Roberts

This article is aimed at those that grow cactus and succulents.

What is a mealy bug? To a lady bug it is breakfast, lunch or dinner. To ants it is a 'honey cow' to be tapped for sweet honey dew all the time. To those that grow house plants it is creature you do not want to see at all. To growers of cactus and succulents it is a darn disgusting pest. Anyone that grows cactus and succulents and spends any time around cactus clubs know that mealy bugs are something to get really up set about. Those that have prize plants in a greenhouse or hothouse and find mealy bugs cannot be blamed if they go stark raving mad. Mealy bugs like aphids suck the life out of plants. If left uncontrolled they will kill a plant; a small plant quite soon and a larger plant will take a while longer but they will kill it also. I got several trays of plants and some of the plants were not green like they should be for a healthy plant. These were plants about an inch in diameter, on inspection sure enough the roots were white with mealy bugs. The plants with white roots were of a distressed color like when they are sun stressed. They were a reddish color and so easy to pick out. Also, the body was soft instead of firm like a healthy plant. With a fine but powerful blast of water the plant roots and body were washed clean of any signs of the mealies.

A story; I worked for a woman that had lots of cactus and succulents. She had me spray the plants every so often with Cygon 3E which was a brand name for Dimethoate which is/was a systemic insecticide. (I say was because the government in their god given, better than anyone else's, knowledge declared dimethoate too dangerous for the regular dummy to buy and use. It was banned from the market.) Now keep in mind that I worked for this lady for years and in those years, she never got rid of the mealy bugs. After a spraying they would sometimes disappear for a while. Sometimes after three to five days I would get a call saying that I did not spray very well because the bugs are back again. She would even say that a lot more bugs had shown up. She then got to sticking right by me as I sprayed the plants. She would tell me to hit that area hard because they got mealy a lot more than another section. So, it was hit and miss for the different plants. 'Hit these hard and do not hit these at all for they never get mealy bugs.' As far as I know she never did get rid of the mealy bugs.

Story #2; I worked at a cactus nursery for thirteen years, this was for mostly for two days a week and sometimes three to four days a week. It depended on how busy they were. I was assigned to water the plants. I was to water the plants every week. In about a months' time I started taking out the dead plants before starting to water. In a few weeks I discovered I was taking out between forty and sixty plants a week. I told the boss I was not going to water every week as it was killing way too many plants. So, one week I would water and the next week I was potting or up potting plants. In three weeks', time, the number of dead plants dropped down to about twenty and then went on down to maybe three or four plants in a couple weeks. What does this have to do with mealy bugs? Well I had the privilege of also applying Dimethoate 2.67 EC when the boss decided it was time.

They had two large hothouses that were 30 x 90 feet, so a lot of plants. Cactus and a few succulents were in about 2/3 of the area. The last 1/3 held the boss's wife's plants, mainly succulents. I was not to water or mess with any of her plants unless she was there to tell me what to do as she would get quite upset. Any plant that died if I watered it or not was usually my fault. For years I would water at least two times a year with dimethoate to try to get rid of the mealy bugs. The dimethoate did a wonderful job. I really went after those mealy bugs, but before long mealies started showing up again. One time the boss wanted me to go after the mealy bugs again.

This time I told him to keep his wife in the house and I would hit her plants because her plants were loaded with mealybugs. He agreed and I went to work with the insecticide. She had a lot of hanging pots of Hoya plants and they each had a city of mealybugs on them. She would use a hand sprayer and spray the plants and only kill the bugs that were seen on the stems. I worked all her plants over really well and soaked the roots with the dimethoate and the next week there were no live mealybugs to be seen. For the rest of the time I worked there I did not have to treat for mealybugs.

Different kinds of mealybugs; root mealybugs, spine mealybugs, leaf mealybugs and any other names people want to call them. Root mealybugs, live on the roots of plants and suck the life juices from the roots. Leaf mealybugs, are mealybugs that live on any soft body plants including the roots. One year I noticed the neighbor's apple tree had white areas all up and down the trunk and branches and on some leaves. When I investigated, I saw there were many patches of mealybugs. The neighbor said I could spray the tree. I did and in a month the bugs were back again. I discussed the situation with them and they said they did not get apples off the tree any way so I could cut it down. I also dug out the roots. These mealybugs I call leaf mealybugs as they will attack a plant where ever they can stick their suckers into a soft area and suck juice. Leaves, stems and on succulents on any part of the plant where they can poke a hole and dip their straw into for a drink.

Spine mealybugs, there is no such thing as a spine mealy!! Oh boy, did I ever hear a roar go up from a lot of people. I have heard the term spine mealybugs for more years than I care to mention. What people are calling spine mealybugs are most of the time mealybug egg cases. It seems that the mealybugs climb up the plant in the cool of the night to lay its eggs. Sometimes the egg laying mealybug does not get to a place to hide and so is seen crawling along a spine. It does not live on the spine! It can not get any nutrients from the hard spines. They can not penetrate the hard spine to get anything out of it as there is nothing in the spine to drink. On most cactus plants the mealybugs are seen on the roots and so the name 'root mealybugs'. When the bugs want to lay their eggs, they climb up the plant and go to the highest part of the plant or out on the spines to lay the eggs, these are in the cases they deposit on the spines. When done they will head back down below onto the roots or they will hide from the heat in the wool at the top soft area of a plant. The female mealybug will supposedly die about 10 days after laying her eggs. When there are too many bugs on the roots some will migrate up the new growth of the plants and suck juice there. By that time, it is almost too late for the plant unless drastic measures are taken, sometimes it is too late for the plant anyway. There are many ways of getting or spreading mealybugs. Buying infested plants or someone giving you plants that are infested with mealybugs. This can happen without any mealybugs showing on the above the soil part of the plants. When I get new plants, I usually repot them into my soil so I know the plant has the same soil as all the rest of my plants. When repotting I get most of the old soil off the roots and that way, I can inspect the roots for mealybugs and also for the health of the root system. If there are white fluffs all over the roots and also on the inside of the pot then you know the plant has had or has live mealybugs. It is easy to wipe the signs of mealybugs off the outside of a pot and also to remove signs of mealybugs from the plant and spines. But when you get into the roots it is next to impossible to hide the fact that a plant has mealybugs. I use a metal cake pan to depot in and catch all the old soil. If there are any signs of mealybugs, that soil goes straight into the trash. That way it does not contaminate the soil bin and spread mealybugs to all other plants that are potted.

If I find mealy bugs, I will take the plant out to a hose with a special nozzle and use a fine but strong stream of water and will wash the roots and the entire plant clean. When repotted the plant gets put in a special place and when time comes to water it gets special water care in that it gets watered with a systemic insecticide. If there were signs of only a couple mealy bugs the plant will get two waterings that way but if the roots were white with mealy it will get quite a few waterings with the systemic.

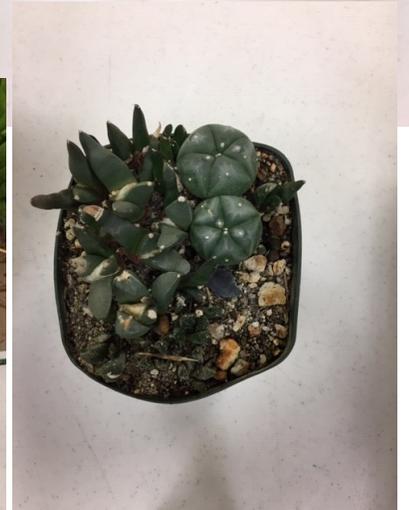
The root system and the shape of the roots can tell you what kind of life the plant has endured up to the time you got it. One grower used desert sands and pumice and the plants he sold had roots that were like short stubby sharpened pencils. He used the 3.25 inch rose pots and the roots were only like an inch long at the most. Out of the bottom were thread like roots. So, what does that tell me? It says that his soil held water and so the roots would not grow any longer than about an inch. They tried to grow more roots but the roots rotted off and kept them stubby and short. If you buy a plant that has a pot packed with roots and it is hard to see any soil then you know the plant has been in that pot for half of forever and sure needs a repot job. Another thing is if you get small plants (young plants) and they have been ravaged with mealy bugs they will also have short, stubby weak roots. I also use the fine spray to make sure any mealies are washed off of even small and seedling plants.

If you know you have mealy bugs on a couple plants you can move them to an area away from the other plants and treat them. But I like to leave them where they are and treat every plant in three to four feet (a meter) of the mealy bugged plants. If I find plants in several places on that bench, I will treat the entire bench. If you really want to get rid of mealy bugs you cannot just spray the above soil part of the plant. You also have to really soak the root system. I have seen many hundreds of times where a good watering only wets about one centimeter into the soil and the rest of the soil inside the root ball is powder dry. That is where the mealy bugs are making their city. Many people will water with the systemic but never really be rid of the mealy bugs. If you really want to kill the mealy bugs you have to 'waterlog' the root system. I have also seen that one treatment with the systemic insecticide is not enough to wipe out an infestation of mealy bugs. I now water with the insecticide at least 3 waterings in a row. That way the plant will soak up enough systemic to poison the plant and eliminate the pests.

Another thing to think about is that a single through watering with systemic will be ok for a plant in a 2-inch (5 cm) pot. A plant that is the size of an orange will have to take on more systemic to make the plant poison to the mealies. It will take at least two soakings to get enough poison into that plant to kill any mealies that want to take a sip out of that plant. Where a lot of people go wrong is, they think a single watering with systemic will take care of a plant that is 12 inches in diameter (30 cm). It takes a lot more systemic to poison a plant that size. But if the root system is soaked very well the entire plant will not need to be made poison to rid it of mealy bugs. All the systemic insecticide that I know of are also contact insecticides. That means that besides being taken up by a plant and killing mealies through their sucking the plant juices, the insecticide kills on contact. I know people that think that by spraying a plant with a spray will rid them of the mealy bugs and this does not happen. I know people, like the woman I worked for, that only spray the plant bodies and wonders why the mealies are back in a few weeks.

For the 'spine mealy', those are egg cases and the eggs hatch out in a few days and then the plant is covered with minute mealy bugs. If not sprayed they head down stairs to the root system and live to lay eggs in time. Mealy bugs do not seem to like living in a damp environment and so after a good watering they will go topside and lay their eggs. I have seen quite a few times where a plant hasn't any mealy bugs to be seen, give it a good watering and in a day or two there are egg cases all over the plant. I have a good size *Mammillaria baxteriana*, it did not have any mealy bugs, I gave it a real good watering and in two days the entire plant was covered in egg cases. That is very irritating to say the least. That is why I try to make sure I treat at least two times a year for mealies, even if I have not seen any signs of mealy bugs at all.

**MARCH BRAG TABLE:** The following members brought plants for the Brag Table: Jack Fleming brought *Euphorbia brevirama*, *E. sp. ramenae* and *E. gottlebei*; Bill Gale exhibited a variegated *Haworthia attenuata*; Brian Nagels showed *Haworthia retusa cymbiformis*; Karen Willoughby showed *Sedum burrito*; Sue Haffner brought *Haworthia pumila* cv 'David Grigsby' and *Haworthia arachnoides*; Dan Gale exhibited a number of plants including several variegated agaves, *Astrophytum myriostigma*, *ariocarpus* seedlings, *Pachypodium succulentum* and a variegated yucca; Fred Gaumer showed *Cheiridopsis peculiaris*, *Haworthia scabra* v. *lategani*, *H. springbokvlakensis*, *H. truncata* v. *maughanii*, *H. groenwaldii*, *Lithops dorotoea*; Oscar and Ana Ramirez exhibited *Haworthia attenuata* and a "mess o' haworthias"; Roz Tampone brought three haworthias in a pot; Cindy Duwe showed *Haworthia sordida* v. *agavoides*, *H. attenuata*, *H. limifolia* v. *gigantea* and "6 haworthias at the end of the table"; Bruce J. Hargreaves showed *Obetia ficifolia*.



# DENMOZA

*Denmoza* is a South American genus, one that has puzzled taxonomists for years. It has been put into various families—*Echinocactus*, *Echinopsis*, *Cleistocactus*, *Matucana* and others. Now DNA studies show it's related to *Acanthocalycium*. In 2001 a natural hybrid was found between *Denmoza* and *Trichocereus*. These plants are fertile and produce seed. A name has been proposed: *xTrichomoza*.



There is one species, *D. rhodacantha* or perhaps two, with *D. erythrocephala*. The latter may just be a re-naming of the former. Spine color has been cited as the difference in the species, but explorers in habitat have found that spine color is a factor of age. Young plants display bright red spines (that's what *rhodacantha* means), but as the plants age they produce more white spines from the areoles. From a distance these older plants appear whiter with just the new growth showing red (*erythrocephala* = red-headed.)

Plants are usually solitary, rarely branching from the base; globose; becoming columnar with age. In habitat, they can reach 5 to 6 feet in height. Flowers are tubular, zygomorphic, scarlet red, pollinated by hummingbirds. Habitat is full sun on rocky hills and slopes in foothills on the eastern side of the Andes in Argentina, states of Mendoza (*Denmoza* is an anagram of Mendoza), Catamarca and others.

These plants are very slow growing. The habitat plant pictured here must be very, very old. *Denmoza* will remain of manageable size in a pot for a long time. It presents no difficulties with regard to cultivation.

(Illus.: "Cactus odyssey" (2002), by Mauseth, Kiesling and Ostolaza)

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## March Board Meeting

Board members are Rob Scott, President; Rosanna Rojas, Vice-President; Michele Roberts, Treasurer; Karen Willoughby, Secretary; board members Craig Roberts, Cindy Duwe, Sue Haffner, Bill Gale, Dominic Ortiz and Christeen Abbott.

Agenda topics:

1. Cancelling the meeting and workshop for April.
2. Annual Show & Sale. The decision regarding this will likely be made middle of April.  
It would appear we may have to postpone to a later date in the year.
3. Register system for future sales.
4. Webmaster.
5. Raffle at meetings.
6. Home & Garden Show wrap-up. It was a big success! Thanks to all for your help.
7. Replacing tablecloths with flame retardant ones in the future.

If you would like further information regarding any of these topics, please do not hesitate to speak to a board member.

Respectfully submitted, Karen Willoughby, Secretary

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