

CACTUS COURIER

Newsletter of the Palomar Cactus and Succulent Society
The North San Diego County Cactus and Succulent Society

Volume 63, Number 5

May 2016

NEXT MEETING

Saturday, May 21st

**Park Ave. Community Center
210 Park Ave., Escondido**

Brag plants, Exchange Table, Benefit Drawing

11:30am - 3:00pm

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REFRESHMENTS

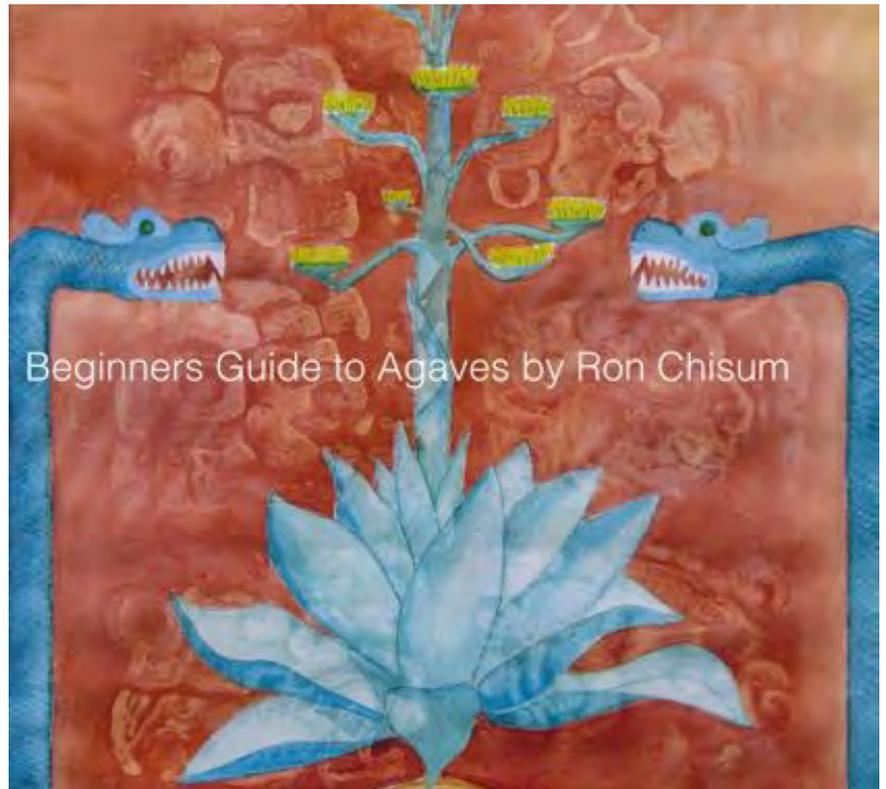
- 1 – Don Nelson
- 2 – Annie Morgan
- 3 – Tina Cord
- 4 – Vicki Broughton
- 5 – Janina Piehel Lebowitz
- 6 – Mary Hanson
- 7 – Nancy Dunn
- 8 – YOU!!!

Click here to visit our webpage:

www.palomarcactus.org

We're on Facebook!

This Month's Presentation: Beginners Guide to Agaves By Ron Chisum



For our program this month Ron will be talking about Agaves. He has been raising Agaves and succulents for forty years and currently has about 35 agave species or hybrids in his greenhouse or planted in his yard. About 6 years ago he started making hybrids and raising Agaves from seed.

His program will be about the basics of dealing with Agaves: plant selection, pest control, propagation, hazards, and removal of plants that die after flowering. Ron says, "I love agaves, but they can be a problem if not thoughtfully managed. I hope to provide information that will help you enjoy this family of plants."



Agave franzosinii

Ron Chisum is a retired dentist who enjoys gardening, fishing, and painting. He joined PCSS in 1983 and has been a Life Member since 2009. Ron served as president for 3 years, on the Board of Directors for 8 years, as Program Chairman for 3 years, in addition to Show Chair for a number of years when the event was held in Escondido.



Agave Potatorum



Agave Parrasana

Agave Bovicornuta



Agave colorado



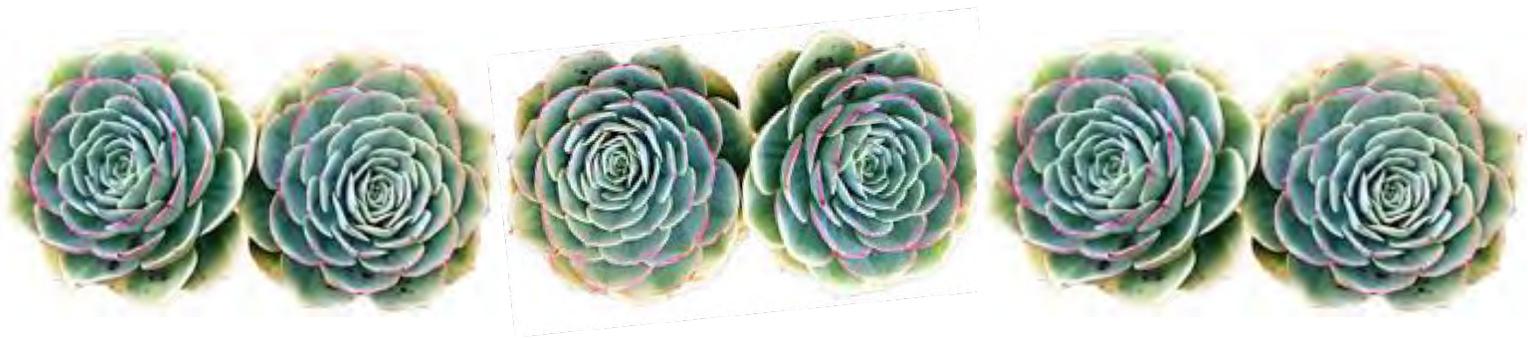
BOARD BRIEFS - By Brita Miller and Annie Morgan

First thank you to Michele Cloud-Hughes for an excellent presentation last month on the new species of cholla cactus discovered in So. California. Who knew one species could have so many different flower colors?

Thanks go once again to Wanda Mallen and Gary Vincent for sharing their fantastic garden at April's Coffee in the Garden. It is always such a treat to see all the beautifully designed sections of their yard, the very diverse plant collections, the incredible greenhouses, and the creative collection of over thirty custom birdhouses.

We want to thank Ron Chisum for his great job presenting the how-to's of beheading and propagating Aeoniums and Echeverias last month. You won't want to miss this month's program when he presents Agaves. He will be sharing a Power Point presentation with lots of practical information. There will be a question and answer session at the end.

2016 Schedule of Speakers, Topics, and Plants of the Month - Don't miss the list below of this year's speakers, titles, and Plants of the Month. We hope this will help you in getting your plants ready to share.



2016 Schedule of Speakers, Titles, and Plant and the Month

<u>MONTH</u>	<u>SPEAKER</u>	<u>TITLE</u>	<u>PLANT OF THE MONTH</u>
May	Ron Chisum	A Beginners Guide to Agaves	Agaves
June	Gunner Eisel	From the Window Sill to the Poor House to the Trophy Table	Haworthias
July	Ernesto Sandoval	The Needs of Succulents Above and Below Ground and In and Out of Pots	Echeverias
August	PICNIC	At San Diego Botanic Gardens	Auction
September	Woody Minnich	TBA	Staging Workshop
October	SHOW & SALE	At San Diego Botanic Gardens	Your show plants!
November	Brian Kimball	Gasterias	Gasterias
December	HOLIDAY PARTY		

How Do Brag Plants Work Anyway?

Our Brag Table is an opportunity for you to bring in your favorite and best-looking plants and show them off! This is a mini-competition with 1st, 2nd, and 3rd place winners chosen in Novice, Intermediate, and Advanced divisions of cactus, succulents, dish gardens and Plant of the Month.

Members get a chance to see each other's special plants, and this is also excellent practice for our big October Show held at San Diego Botanic Gardens. Various people judge, and details about each plant are discussed as they are evaluated.

Winners earn points towards choosing from a selection of beautiful plants at the December Luncheon. Winning 1st place earns 3 points, 2nd place earns 2 points, 3rd place earns 1 point, plus you get 1 point just for entering!

You may only enter the same plant every six months, and in addition you must have owned the plant for at least six months to share it on the Brag Table.

PLANTS MUST BE LABELED AND ON THE TABLE BY 11:45am!



Plant of the Month ~ AGAVES

Agaves are a genus of monocots native to the hot and arid regions of Mexico and the southern United States. A few Agave species are also native to tropical areas of South America. The plants are perennial, but each rosette flowers only once and then dies. Some species are known by the name century plant.

Agave species are succulents with a large rosette of thick, fleshy leaves, each usually ending in a sharp point, and many with spiny margins; the stout stem is usually short, with the leaves apparently springing from the root.

The Agave root system is designed to help the agave efficiently capture moisture from rain, condensation, and dew. In addition to growing from seeds, most agaves produce 'pups' – young plants from runners. Some Agaves produces hundreds of pups on their bloom stalk.

Agave leaves store the plant's water and are crucial to its continued existence. The coated leaf surface prevents evaporation. The leaves also have sharp, spiked edges. The spikes discourage predators from eating the plant or using it as a source of water and are so tough that ancient peoples used them for sewing needles. The sap is often acidic. (Information adapted from Wikipedia)



Agave angustifolia 'Marginata'



Agave victoriae reginae



Agave sisalana



Agave parryi

Brag Plant Winners

NOVICE SUCCULENTS

- | | | |
|-----------------|-----------------|----------------------------|
| 1 st | Libbi Salvo | <i>Ledebouria socialis</i> |
| 2 nd | Libbi Salvo | Aloe |
| 3 rd | Deborah Pearson | <i>Euphorbia polygona</i> |

INTERMEDIATE SUCCULENTS

- | | | |
|-----------------|----------------|---|
| 1 st | Lorie Johansen | <i>Euphorbia esculenta x
flanaganii</i> |
| 2 nd | Jeannie Zonana | <i>Euphorbia obesa</i> |
| 3 rd | Victor Zonana | <i>Euphorbia lactea</i> |
| 3 rd | Don Nelson | <i>Euphorbia enopla</i> |

ADVANCED SUCCULENTS

- | | | |
|-----------------|------------------|-----------------------------------|
| 1 st | Robert Kopfstein | <i>Pachypodium namaquanum</i> |
| 2 nd | Robert Kopfstein | <i>Agave bracteosa variegated</i> |
| 3 rd | Robert Kopfstein | <i>Hechtia iltisii</i> |

NOVICE CACTUS

- | | | |
|-----------------|----------------|---------------------------------|
| 1 st | Christine Hays | Noto Cactus |
| 2 nd | Margaret Regan | <i>Tephrocactus articulatus</i> |

INTERMEDIATE CACTUS

- | | | |
|-----------------|--------------|---------------------------------|
| 1 st | Jim Anderson | <i>Echinocereus morriscalii</i> |
| 2 nd | Jim Anderson | Disocactus |

ADVANCED CACTUS

- | | | |
|-----------------|------------------|-------------------------------------|
| 1 st | Robert Kopfstein | <i>Echinocereus triglochidiatus</i> |
|-----------------|------------------|-------------------------------------|

NOVICE DISH GARDEN

- | | |
|-----------------|-----------|
| 1 st | Tina Cord |
| 2 nd | Tina Cord |
| 3 rd | Tina Cord |



Tephrocactus articulatus



Noto Cactus



Euphorbia esculenta x flanaganii



Echinocereus triglochidiatus



Euphorbia obesa



Dish Garden



Euphorbia polygona



Disocactus

HELP WANTED - WE NEED YOU!

As you've heard us say before EVERYTHING that happens in the club is done by VOLUNTEERS. These are people just like you and me, who have decided to give a little or a lot back to the club to help things run smoothly.

At this time we have too few people doing too many jobs, which puts undue stress on some people, plus some things are beginning to slip. Following are the jobs that new volunteers are needed for, and a bit of detail as to what they entail.



THIS IS SERIOUS BUSINESS FOLKS. WE NEED YOUR HELP IF OUR CLUB IS GOING TO CONTINUE TO PROVIDE ALL THE WONDERFUL ACTIVITIES THAT IT CURRENTLY DOES.

WEBSITE – Currently Annie Morgan is trying to keep the website up to date, but needs to hand over part of the job so she can concentrate on the other jobs she does. The specifics are:

- Updating the Meetings page by adding in the next month's speaker information, which Annie will provide. This entails deleting the last month's info and putting in the new.
- Updating the Calendars and Events page by keeping the Current Meeting Dates current – i.e. deleting the old month from the chart of yearly meetings, plus deleting any So. California Events that are out of date.
- *This will take about 60 minutes monthly. Website experience helpful but not necessary. Annie will train.*

ONLINE PUBLICITY – There is lots of behind the scenes work that goes into getting the word about our club monthly, and for our October event. To start with we would like someone to send in monthly meeting notices to the San Diego Union Tribune. The specifics are:

- Send out monthly notices to the San Diego Union Tribune, and any other sources you discover, with brief details about our monthly meetings.
- *This will take about 45 minutes per month.*

AV PERSON – We need someone to set up the projector, laser pointer, screen, etc. and then work with the speakers in hooking up their computers.

PURCHASE NAME TAG DRAWING PLANTS –

- We need three 4" plants purchased each month (except for March, August, October, and December).
- You get to purchase three beautiful plants that you think people would like and bring them to the meeting.
- Then give Leon the receipt and he will mail you a check.

AUGUST PICNIC & AUCTION COORDINATORS –

- We need someone to coordinate the food list and supplies, and to make sure setup and cleanup get done.
- For our auction which following lunch, we need someone to get donations of auction items (plants, pottery, etc.) and make sure they are brought to the event. Peter and Annie will handle the auctioning.
- Volunteers may make announcements at monthly meetings, put notices in the newsletter, etc. to help do the job.
- A committee(s) would be very helpful. Brita and/or Annie will answer questions as needed.
- *Each job should take about 2-3 hours overall during the two months before and on the day of the event.*

NEWSLETTER HELP WITH PHOTOS – Hopefully you've noticed that the newsletter now has photos of many of the Brag Table winning plants, plus as many other photos as there is room for. Annie uses a Macintosh computer and is having trouble adding these multiple photos to a page without them bouncing all around. She is hoping that someone with experience in this could show her some tips and tricks to make it easier. This would be a one-time job, with perhaps some follow up phone calls.

CLUB LIASONS – Do you belong to other garden clubs? Would you be willing to take flyers, bookmarks, etc. to your clubs to share our special events, i.e. October Show/Sale, March Festival?

Contact Annie Morgan or Brita Miller to discuss any of these exciting opportunities! Contact info is on p. 9.



Members' Brag Garden or Plant Photos

Share a section of your garden, a plant that bloomed in-between meetings, or one that's too large or heavy to bring to the Brag Table. Published photo receives 3 Brag Points; those who email in photos receive 1 point. Email photos with plant names to Annie at: info@palomarcactus.org. **BRAG PLANT PHOTO MUST BE IN THE SUBJECTLINE!**



Bloom stalk from *Puya alpestris* - Ron Chisum



Portulacaria variegata - Vicki Martin



Echinopsis - Staci & Jason Kubrock



Mammillaria - Annie Morgan



This is a fabulous event! Go to their website, WaterwiseBotanicals.com, to purchase tickets and **for more** details. Go to their celebration on Friday, but don't miss our meeting on PCSS Saturday! Contact Annie for questions.



Succulent Celebration
 "A Magnificent Obsession"
**4th Annual Succulent Celebration at
 Waterwise Botanicals Nursery**
 Make this a day for YOU!

**Come and enjoy food, friends & succulent fun!
 Featuring speakers, book launching, vendors,
 entertainment, food trucks, demonstrations, and
 workshops.**

**Friday, May 20th and Saturday, May 21st
 9:00 am to 4:00 pm**

**Friday's Speakers are: Jeff Moore (Solana
 Succulents), Debra Lee Baldwin, Tom Jesch
 (manager of Waterwise), and a workshop by
 Cindy Davidson from the Succulent Perch**

**Buy Pre-Sale Passes now for only \$10, available
 through Sun., May 15th. \$15 at the door
 Children 12 years and younger are FREE. FREE PARKING**

Palomar Cactus & Succulent Society

The North San Diego County C & S Club!

Membership Application

Membership: Please ✓ a category:

New Member _____

Renewal _____

_____ Annual dues w/color email newsletter \$20

_____ Additional Household Members + \$ 5

_____ Engraved PCSS Name Badge + \$ 6

Total _____

PLEASE PRINT! We must be able to read it!

Name(s) _____

Address _____

City/State _____ Zip _____

Phone # _____

Email _____

Bring form & check or cash to a meeting, or mail it in.
Make checks payable to:

Palomar Cactus & Succulent Society or PCSS
P.O. Box 840, Escondido, CA 92033

Palomar Cactus & Succulent Society

Peter Walkowiak – President & Co-Program Chair

• hciservices@gmail.com

Brita Miller – Vice-President, Show Chair, Event Coordinator

• eventcoordinator@palomarcactus.org

Leon LaFreniere – Treasurer, Membership

• info@palomarcactus.org

Annie Morgan – Secretary, Website, Co- Program Chair

Publicity, Newsletter Editor

• publicity@palomarcactus.org Francis Granger

– Board Member & Exchange Table Mike Nelson –

Board Member

Carol McAllister – Board Member

••••••••••

Fran Komarek – Librarian - librarian@palomarcactus.org

Vicki Martin – Assistant Librarian

Chet Reed – Brag Plant Photographer

Bruce Barry & Sandy Wetzel-Smith – Refreshments

Dennis Miller – Benefit Drawing & Plant Sales

2016 So. California Event Calendar

May 21-22 - Long Beach Cactus Club Plant Show & Sale

10-4 pm, Rancho Los Alamitos, 6400 Bixby Hill Road,
Long Beach, CA - Info. 562-631-5876

May 28-29 - Central Coast C & S Society Annual Show & Sale

10-4pm, Ludwick Center, 864 Santa Rosa, San Luis Obispo, CA
Info. 805-237-2054, www.centralcoastcactus.org

June 4-5 - San Diego C & S Society - Summer Show & Sale

Balboa Park, Room 101, San Diego, CA Info: 858-382-1797

June 11-12 - Los Angeles C & S Society Plant Show & Sale

11th 9-5, 12th 9-3:30 - Sepulveda Garden Center, 16633
Magnolia Blvd., Encino, CA - Info. www.lacss-show.com

July 1 – 3 - CSSA Annual Show & Sale

Huntington Gardens - 1151 Oxford Road, San Marino, CA.
Plant Sales July 1st - 3rd, Show July 2nd - 3rd,
Info. 626-405-3504

See January 2016 Newsletter for the complete list of events.

2016 PCSS MEETING SCHEDULE

21 May – Note 3rd Saturday

25 June

23 July

27 August – PICNIC & AUCTION

24 September

22, 23 October – ANNUAL SHOW & SALE

19 November – Note 3rd Saturday

17 December – Note 3rd Saturday – Holiday Party!

Gates Cactus & Succulent Society

Show & Sale

Friday & Saturday

May 13 & 14, 2016



Aloe ferox

Sale: 9:00 'til 4:00 PM Both Days

Show: 9:00 'til 4:00 PM Saturday May 14

Landscapes Southern California Style

450 E. Alessandro Blvd., Riverside, CA

Go to www.gatescss.org for more information

The Floracide of Agave Salmiana

By Stan Yalof

The Yalof family sadly reports the passing of their gateway Agave salmiana after several decades on Earth. This magnificent plant is survived by ten smaller progenies, gathered protectively under its sheltering leaves. And what leaves they were, 12-inches wide and almost 60-inches long, edged with lacey recurved teeth! If it could speak, its final words might have been, "There comes a time when we agaves have to reach for the sky." As its final act, it erected a monumental thirty-foot spike [inflorescence], crested with a flower festooned candelabra [panicle], and proudly passed.

November, Two Months Earlier: The half-grown agave looked up at his parent, "What a day, sunshine, heat, and wet roots!"

"Nice weather, I guess, only I don't feel so hot...that cold snap in September, brrr."

"Hellfire pops, in your two-score you've seen worse."

"I know that, but after that chill I felt as if my leaves were being drained of my vital juices. Look, there's even red in my leaves. That's not normal!"

"I wouldn't worry. You've always said that we agaves are the toughest of the tough. We got those fibers in our leaves, and the serrations and spine tips ...!"

"Well, pup, that isn't all. I feel something growing on my apex, and it isn't new leaves.

I guess there is nothing to do but wait and wait. Time tells all, they say!"

December: There was now a flowering stalk rising from the old agave. "It's my time I guess. My leaves, once smoothly proud, now wrinkled and drooping, are being drained of their substance, pumped up through my phloem into the inflorescence and its flower tipped candelabra¹. This I can live with. I have my generations of pups sheltered under my lower leaves, my heritage."

"Pops, perhaps you'll recover come Spring."

"Well, no! We Salmianas are monocarpic. Once we flower, that is the end, our demise, our swan song, our passing, our goodbye, kaput ... and in a way a beginning. This I understand. But what I don't understand how come the two strange sprouts, somewhat like us, but again not like us, but with their own shape, just sprouted from me."



¹¹ Alas, *Agave* senescence comes to most, but not all. For those that senesce, the flower stalk arises from the stem apex. Most are monocarpic, with the rosette dying during flowering. Some few avoid this with off-center stalks from the leaf axils (*A. celsii*). The colorful turning of autumn leaves is a familiar example of senescence. It is triggered by changes such in photoperiod, occurring during the waning days of autumn. It is an energy-draining process triggered by signals from the leaves (see footnotes 2 & 3). It involves the mobilization of nutrients and breakdown of proteins in the service of flowering. I would imagine that these nutrients are passed through the roots via the xylem passages before powering the root. I have two arguments for this: 1. Autumn shedding trees return nutrients to the roots. 2. The strange pups received FT via the underground rhizome. The most striking effect is the breakdown of chlorophyll which reveals the previously masked yellow and red carotenoids, and also produces the bright red anthocyanins. At the completion of senescence, the leaves, drained of nutrients and proteins, contain little more than cell walls and breakdown products.

“Strange? Do they have some resemblance?”

“They do have agave leaves, but small and hugging their stalk which are knee-high (33-in.) and, howard gentry preserve us, they already are topped with flower buds ready to flower. They sprouted in the usual agave way, offsetting from my rhizome (the underground part of the stem). Whatever launched the terminal spike apparently affected them, probably getting a slug of the same hormone signal that flowed into me.”

“It would seem logical, Pops, that whatever initiated your flower stalk somehow created these ‘whatevers’.”



“I’ve given this a lot of thought. Cerebrophobic humans believe we plants can’t have deep thoughts, but we rule the world. It seems that we plants are kept from flowering by signals that our leaves send off to our control center, the flower time locus (FTL). When we grow healthily, leaves signal OK to the flower time locus, and flower time is set off².

But there are other influences for flowering. One by one, FTL checks off:

- The circadian clock balance between day and night light, OK!
- A cold snap (vernalization), OK!
- Wet and warm soil, OK!
- When a plant is vigorous and growing, flowering time is repressed by a signal from the leaves, identified in 2005 as Florigen FT³. As the plant ages, growth slows as does the output of FT to the FTL, starting senescence of the leaves and enabling flowering.

“Seems logical.”

January 2016: The florigen pups grew fast, up to 33-inches, resembling a miniature flowering stalk, topped with large buds. There was a concupiscent sweetness about them, luring waiting bugs to the opening. The first bud was typical agave, lily-like, anthers first, coated with pollen, and later by the rising stigma, six petals indistinguishable from its sepals, and nectarines seeping in the cups. There were buds at their apex, but also at the axils.

“Well, I’m content. My statuesque sweet-juiced candelabra draws bugs and birds, the pups from my rhizome pups will carry on, and the two odd pups have shared some of my transformation. They are in bud, already beginning flowering! I wonder about their future, annual, perennial? “



² Flower Time Locus is an epigenetic dominant gene. It inhibits flowering in the laboratory *Arabidopsis* mustard plant. It inhibits flowering until the plant has undergone vernalization. This means that the plant could flower only if other conditions are satisfactory. I have extended FTL to the genus *Agave*.

³ The 85 year hunt to identify Florigen FT culminated in 2005. Science Magazine put this long sought flowering signal on their list of Breakthroughs of 2005. In brief, the plant’s biological clock produces a messenger RNA whose levels remain low until light levels are adequate. When adequate it promotes FT (flower time), allowing flowering, other conditions permitting.

April 2016: Some of the normal appearing pups clustered about the old plant, the smaller ones, began to show signs of premature stalk formation. These unusual stalks were of intermediate appearance between the parent and the earlier Florigen pups. Their stems were robust, rising from the meristem. They were unnoticed until February. As of early April 2016, they continue to grow, to about 36-inches, capped with what resembles an incipient flower bud. Who knows what will develop. Meanwhile, the buds of the Florigen pups continue to open.



Agave salmiana

I plan to describe the events that triggered these chimeric events in a future note. – Stan