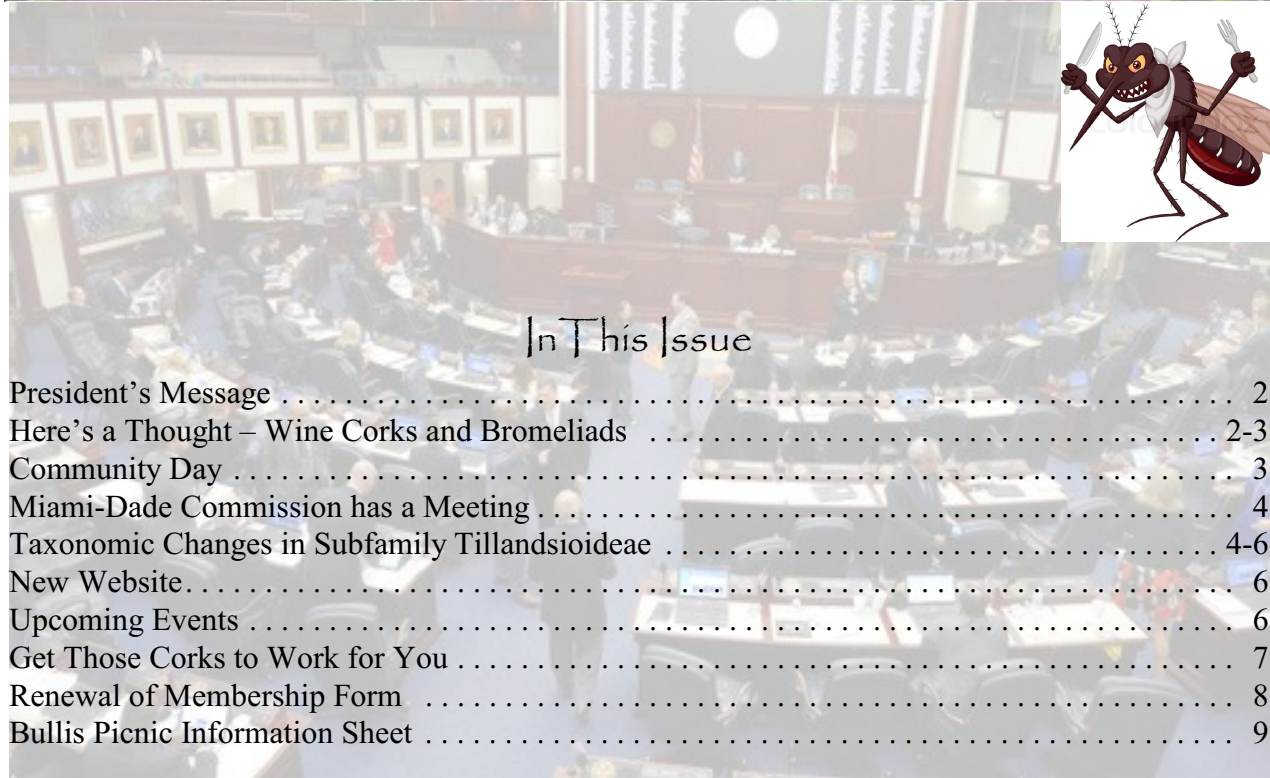


Bromeli Advisory

February 2017



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BromeliAdvisory

Stop and Smell the Bromeliads

February 2017

WEBPAGE: <http://www.bssf-miami.org/>

 http://www.facebook.com/groups/BromeliadSF/?bookmark_t=group
 <http://www.facebook.com/pages/Bromeliad-Society-of-South-Florida/84661684279>

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What	Who
Sales Table	Jon Hanson

FEBRUARY 21, 2017

SPEAKER: Jon Hanson
RAFFLE TABLE: Chris Pfeffer
FOOD: Usual Suspects

Jon Hanson

Jon Hanson has collected and grown bromeliads for over 40 years.

Raised and educated in Southern California, Jon and his wife Teresa became members of the Saddleback Valley Bromeliad Society, a BSI Affiliate, in 1983. Jon went on to hold many positions within the society including the position of President. In 2011, Jon & Terie relocated to Naples, Florida and in 2012 they started BROMELIAD PARADISE, a family-owned Bromeliad nursery selling over either the internet or by appointment at the couple-acre nursery.



Bromeliad Paradise continues to grow each year. You can visit the Nursery on line at bromeliadparadise.com or call for an appointment at (239) 450-4826. They are located at 13985 Collier Blvd, Naples, Florida. You may also see their [facebook page](https://www.facebook.com/bromeliadparadise) at <https://www.facebook.com/bromeliadparadise>

AUCTION BOOK: Bromelias Para Aficionados by Sociedad Venezolana De Ciencias Naturals/Comite De Bromeliologia. Starting bid: \$20.

President's Message

by Alex Bello

As we continue our march through our Dry Season and begin looking at our landscape for some liquid gold to fall from the sky, we must observe that our bromeliads and other collections are at their peak. Most of our Bromeliads are in full bloom or at peak color, and seem to be reminding us that we must begin to identify which bromeliads are suitable to enter into our 39th Annual Show and sale at Fairchild Tropical Botanic Gardens.



Exactly 59 days away, and the largest gathering of vendors and bromeliad enthusiasts assembled in the state of Florida, our Show is pronounced.

Begin preparing your bromeliads for the Show and it is the BSSF's time to begin assembling a phenomenal team of volunteers to help make this show and sale efficient and effective.

One of the key aspects of organizing a large show is advertising; and, we must make every effort possible to get Visitors, Friends and Community members to come and join us remember without people there is not show.

If there are any suggestions, concerns or anything contact any of your officers or Board members. Always remember the Board meetings are open to any member to attend just email me prior.

Hope to see you March 4, 2017 at the Bullis Picnic – details at end of the advisory!!!

Alex

Here's a Thought – Wine Corks and Bromeliads

by Robert Meyer

Now that you went to the wine tasting and discovered that popping open a few bottles each week will make things seem better, you encounter the age old questions: (a) whoever thought you needed to make a wine bottle topper to keep half a bottle fresh for another day?; and (b) the bottle goes to recycling, but where does the cork go?

I am still stumped by the first question.

The second question, though, has a good grower's answer. Corks not only work well for the bottle, but they are a bromeliad grower's friend as well.

Here's a thought: Convert your ground plants or potted plants to a new media – attach those same plants to wine corks or put wine corks as the media in pots or baskets. Good idea? Yes.

Get a load of this – the tannins in the cork from the wine are supposed to be beneficial to the plants. Why? Tannins occur in many species of coniferous trees as well as a number of flowering plant families. Tannins exaggerate in wine by seeping from the wood barrels which most wines use for aging.

The word tannin comes from the old German word *tanna* meaning oak. Tannins are found commonly in the bark of trees, wood, leaves, buds, stems, fruits, seeds, roots, and plant galls. In all of these plant structures, tannins help to protect the individual plant species. Tannins, when stored in the bark of trees, protect trees from being infected by bacteria or fungi. That is another benefit.

Essentially, tannins are a derivative form of composting. And, tannins affect composting. Tannins appear to be a promising amendment to reduce gaseous emissions from composts (tannins applied directly to the soil reduced emission of nitrous oxide by 17% and volatilization of ammonia by 51%), particularly under subtropical conditions.

Wine corks, by themselves, do not retain water. That truth makes cork beloved for those seeking to reduce rot or fungi issues – common culprits to orchid growers. Using nothing but wine corks for media can prove to be a charm. Especially, for plants that like to dry off very quickly. Think *vriessea* or the dry loving *tillandsia*.

Other plants may need a little extra moisture retention. Think *neoregelia* or *guzmania*. For those plants, avoid corks or use corks in the bottom of the pots and put some other media on top, like sphagnum moss or wood chips, depending on the species' requirement.

Straight wine cork sculpture would make a really cool look. Put a decent size wad of sphagnum moss around the roots, if necessary, or water a few times a week if the cork makes things too dry.

Don't bleach your corks. There is no need. No diseases will be transferred from wine to plant. Remember the tannins are good! And, corks may absorb the chlorine and release it into your plant.

Caging is a common media planting technique. Put some type of media (wood chips, sphagnum moss or other large items) into a cage and then attach the plant to the media by winding small fishing line or twisting items onto the cage to affix the plant. Use cork, and you have another great caging medium. Remember, bromeliads, like orchids, like to be tightly squeezed in their planted environments.

You can adjust the size of the corks by easily cutting or breaking them into pieces. The roots will affix to the smaller, denser media.

You could append your soil with the corks. Adds air passages, increases the tannins for the better, allows the media to last longer, reduces the need to repot, and permits one to avoid health issues which are associated with other airing components – like perlite's respiratory problems from cumulative dust exposure.

Don't drink enough wine to go this route? Try other natural sources like mahogany shells which should be gracing our sidewalks any day now. My *vriessea* love those shells.

For you fun loving drinking types, here is a word of advice: The next time you open a bottle of wine and someone approaches you and asks, "Why are you drinking that wine?" You merely need to tell them, "I drink for the plants." Sláinte

[Pictorial of procedure at page 8 of the BromeliAdvisory.]

Community Day

by Leonard Goldstein

As you know, Chapman Field is the USDA's large and historic Subtropical Horticulture Research Station (SHRS) located at 13601 Old Cutler Rd. Once a year it is opened to the public for an event now known as Community Day. This year's date is **Saturday, February 25, from 10:00 am until 3:30 pm.**

In the mid-1990s, with the threat of closure hanging over SHRS, an organization known as Friends of Chapman Field (FOCF) was created by several concerned citizens, including our own Steve Pearson, to mobilize support for keeping the station in operation. Among its various activities, Friends of Chapman Field works with the USDA staff to plan and conduct Community Day.

This year the USDA and Friends of Chapman Field are encouraging plant-related clubs and societies in our area to set up information/education/membership tables at Community Day. Significantly, those groups will be allowed to sell plants and keep 100% of the proceeds. Even more significantly, FOCF President John DeMott is offering to donate plants to BSSF for sale to the public on Community Day.

What we need from our board is volunteers to set up and run the society's table. Naturally, the more of you who respond, the less time each of you will need to spend at the table, freeing you up to enjoy the interesting programs and tours. Please let me know at your earliest opportunity if you will be able to assist on February 25.

Finally, I encourage everyone to take a look at the F O C F w e b s i t e (<http://friendsofchapmanfield.weebly.com/>).

It provides a very interesting history of Chapman Field, which has had to weather periodic threats to its existence for 100 years.

Annual Show is Coming Soon

Alan Herndon will be informing you of the Annual Show in next month's Advisory. Keep an eye out. There will be some changes.

Miami-Dade Commission Had A Meeting to Remove Bromeliads

by Leonard Goldstein

On February 7, 2017, a meeting was held on the following proposition [Memorandum Agenda Item 11(A) (2)]: Resolution Directed to the Mayor to A) make every effort to prioritize the use of plants in County landscaping that do not pose a threat of becoming mosquito breeding grounds; B) limit the use of bromeliads in County landscaping whenever possible; and C) include a provision in all newly entered, renewed, or extended County contracts that the contractor or vendor shall, whenever applicable, make every effort to prioritize the use of plants in County landscaping that do not pose a threat of becoming mosquito breeding grounds and to limit the use of bromeliads

Before Comm. Diaz moved to defer his resolution, it was clear that Commissioners Monestime, Cava, Moss, and Jordan would be voting against the resolution. Cava said that she initially supported the motion, but she change her mind during a visit to Costa Farms last week. Because a couple of the commissioners indicated that they simply didn't have enough proof to vote in favor of the mosquito-banning measure, Diaz chose remove the matter from a vote, and deferred the proposal until the next commission meeting. It was represented that there would more information gathered in the interim.

In the first part of the meeting, any attendee could speak to the commission in favor of or against any of the agenda items. On the bromeliad issue, representatives of the FNGLA, the Farm Bureau, Costa Farms, Raymond Jungles, and Bullis Bromeliads spoke against the resolution. In addition, Dr. J. Howard Frank, author of the article on bromeliads and mosquitoes in Florida, came down from Gainesville to oppose the resolution. And, a local bromeliad grower parroted Frank in opposition. Pursuant to the rules of the commission, no audience member can speak after the issues are debated by the commissioners.

The resolution speaks only of new plantings by the county, and does not include removal of bromeliads from existing county plantings. Someone with connections at the zoo told me that the director was given a

recommendation/suggestion/directive/order to be rid of the bromeliads at the zoo. When she reported back that it would cost \$1 million to eradicate the bromeliads, the project was shelved. The director's numbers are believable. For years before coming to the zoo, she played a big role in preparing the county budget.

The commissioners who spoke against the proposal argued that the agricultural industry would be adversely affected by passage of the measure. But I think it is also important to point out that if Diaz's resolution requires elimination of all county bromeliad plantings, the expense to the county, i.e., taxpayers, would be *e x o r b i t a n t*, and unjustifiable in the absence of proof that bromeliads play a significant role in the transmission of Zika.

Diaz's logic falls apart if he limits 'discouragement' of bromeliads to just future county plantings. If the bromeliads are as dangerous as postured, wouldn't total eradication from the public landscape be most appropriate?

In addition, removal from the county landscapes without influence over private landscapes may mean a small fraction of the allegedly problematic plants are affected by the measure.

All members are invited to write to their commissioner on their feelings about this issue.

TAXONOMIC CHANGES IN SUBFAMILY *TILLANDSIOIDEAE*

By Herb Plevier

[Reprinted 2017 *Bromeliana*, Vol 54, No. 1]

Did you become unhinged a few years ago when I reported a proposal by scientists for a major revision in the number of sub-families in family Bromeliaceae from three to eight? We were used to the three: *Pitcairnioideae*, *Bromelioideae* and *Tillandsioideae*, and now *Pitcairnioideae* has been split into six subfamilies - *Brochinioideae*, *Lindmanioideae*, *H e c h t i o i d e a e*, *N a v i o i d e a e*, *Pitcairnioideae* and *Puyoideae*. These



At the County Meeting: From L to R: Brandon Cornejo, Stephanie LaRusso, Leonard Goldstein, Patty Gonzalez and Michael Michalski. Photo by Cornejo.

changes were made by a group of cooperating molecular biologists and taxonomists from many countries around the world. The molecular biologists are doing phylogenetic DNA sequencing on Bromeliad species to determine their evolutionary and biogeographical history and relationships. The study of the morphology of the Bromeliads has been sharpened with closer looks at their habitats, physical (anatomical) structure and parts: leaves, presence or absence of a central tank, presence or absence of petal appendages (nectar scales), position of the ovary, different shapes of corollas (20), stigmas (18) and pollen (9), ovules and seeds and absence or presence of ovule and seed appendages. (See photos on pages 4 to 8). When conclusions based on DNA sequence data agree with morphological data, it is possible to make more confident proposals that will work taxonomically. Lyman Smith's Monograph (1974-77) included text and graphics of many of these anatomical characters, but recent morphological studies have resulted in new, more extensive and critical data, particularly the stigma morphology that has been advanced by Gregory Brown.

Now - hold on to your hat - new, important reclassifications have been proposed for subfamily *Tillandsioideae* based on a multi-locus DNA sequence phylogeny and morphology by Michael H. Barfuss, Walter Till, Elton M.C. Leme, Juan P. Pinzón, José M. Manzanares, Heidemarie Halbritter, Rosabelle Samuel & Gregory K. Brown. It was recently published in PHYTOTAXA (279-1) P. 1-98. (The phylogeny referred to above is a classification based on DNA clades that indicate the evolutionary relationships between the tribes, genera and species.) The main goals are: "to provide a stable classification based on monophyletic established genera, and new taxa (genera and subgenera) using new synapomorphic combinations of diagnostic morphological characters, provide a key for generic identification, and a comprehensive nomenclature for the accepted genera..."

(A monophyletic genus is a group of species which form a clade of plants that have a recent common ancestor and all its descendants, and thus it will provide a stable classification for taxonomy. Synapomorphic characters are traits that the species in a DNA clade have in common which distinguish the clade from other clades.)

The data from the DNA sequencing shows when and which species have a common ancestor. The genera *Mezobromelia*, *Tillandsia* and *Vriesea* were polyphyletic - (they had common characters, but descended from two or more ancestors); the authors propose to reclassify them to create new monophyletic genera. (Unfortunately, it is necessary for me to use scientific jargon to properly describe and summarize the proposals. If

this makes you weary, skip down to paragraph "3." in column 2.)

The authors have succeeded in attaining those stated goals: There is a new, workable key to the genera of subfamily *Tillandsioideae* with many physical characters listed to define each genus. The key will be refined and amended as data from ongoing research becomes available. (There are many species that have not yet been analyzed.) By creating new sub-tribes, genera and sub-genera, and reclassifying species anomalies, a more or less stable classification "based on monophyletic established genera" has been created. The following is a brief summary of the key conclusions and important changes:

1. The heretofore recognized four tribes: *Tillandsieae*, *Vrieseae*, *Pogospermeae* (now called *Catopsidae*), and *Glomeropitcairnieae*, are supported by the data. *Vrieseae* has been split into 2 sub-tribes called *Vriesinae* and *Cipuropsidinae*.

2. Eleven new genera have been created, raising the total of supported genera in sub-family *Tillandsioideae* to Eighteen. (The data suggested the possibility that the species *Vriesea subandina* could be moved to a new, single species genus to be called *Cipuroopsis*, but it was too weak to justify such a move at this time.) The genera are: *Racinaea* (78 species), *Tillandsia* (772 species), *Barfussia* (3 species from *Tillandsia*), *Lemeltonia* (7 species from *Tillandsia*), *Pseudoalcantarea* (3 species from *Tillandsia*), *Wallisia* (5 species from *Vriesea*), *Guzmania* (219 species), *Gregbrownia* (4 species from *Mezobromelia*), *Mezobromelia* (5 species), *Josemania* (5 species from *Vriesea*), *Werauhia* (92 species), *Goudaea* (2 species from *Vriesea*), *Jagrantia* (1 species from *Vriesea*), *Lutheria* (4 species from *Vriesea*), *Zizkaea* (1 species from *Vriesea*), *Stigmatodon* (18 species from *Vriesea*), *Vriesea* (238 species) and *Alcantarea* (41 species).

3. A new subgenus *Pseudovriesea* has been added to genus *Tillandsia*, (I assume) as a place to transfer the xeromorphic, grey-leaved former *Vrieseas* as proposed by Jason Grant. But only 4 of the 41 species are named in the report.

4. The following is a short list of popularly grown *Tillandsioids* in which changes have been made.

Some former *Vriesea* species are now: *Tillandsia andreettae*, *T. barclayana*, *T. cereicola*, *T. espinosae*, *T. heterandra*, *T. hitchcockiana*, *T. malzinei*, *T. tequendamae*, *T. heliconioides* *T. tillandsioides*.

Some former *Vriesea* species are now: *Goudaea chrysostachys*, *G. ospinae*, *G. ospinae* var. *gruberi*, *Jagrantia monstrum*, *Lutheria glutinosa*, *L. splendens*, *Stigmatodon goniorachys*, *Zizkaea tuerckheimii*,

Some former *Tillandsia* species are now:

Barfussia laxissima, *B. platyrhachis*, *B. wagneriana*, *Lemeltonia dodsonii*, *L. monodelpha*, *L. narthecioides*, *L. triglochinooides*, *Pseudoalcantarea grandis*, *Ps. viridiflora*, *Racinaea dyeriana*, *R. hamaleana*, *R. venusta*, *Wallisia anceps*, *W. cyanea*, *W. lindeneana* (a new name for former *T. umbellata*), *W. pretiosa*.

Some former *Mezobromelia* species are now: *Gregbrownia hutchisonii*, *Gregbrownia lymansmithii*.

5. Complexes - Some genera are similar in appearance and are closely related biogeographically and/or in their evolution. Similarly, groups of species similar in appearance can be identified as sub-complexes. They may have physical characters in common, but each has its own unique characters to justify retaining a genus or a species rank. These species complexes are a useful taxonomic tool, especially when supported by DNA sequencing.

For example, in his seminar at the Monocots V Conference in 2013 Elton Leme identified and described a *Cryptanthoid Complex* consisting of three related genera: *Cryptanthus*, *Orthophytum* and *Lapanthus*, because they shared habitats and some important physical characters.

The 2016 DNA results support the classification of species complexes, and this report identifies the following: *Tillandsia biflora* (136 species), *T. australis* (4 species), *T. disticha* (2 species), *T. dodsonii*, *T. gardneri* (17 species), *T. lindenii*, *T. purpurea* (6 species), *T. plumosa*, *T. rauhii* (3 species), *T. sphaerocephala* (6 species) and *T. wagneriana*.

6. These many important changes will likely rattle our readers, but just think of the headache the changes have created for Geoff Lawn, our BSI Cultivar Registrar, and his colleagues Eric Gouda and Derek Butcher, who maintain and keep the BCR current. Not only do they have the enormous job of correcting cultivar names to conform to newly created genera and changes in genera, but they have to invent new bigeneric names for cultivars where one or both parents are in changed genera. For example the parents of *x Vrieslandsia* 'Pink Magic' (Arden) are former *Tillandsia laxissima* (now *Barfussia laxissima*) and *Vriesea* 'Redondo Beach'. They will have to create a new bigeneric name from *Barfussia* and *Vriesea*. I am happy to inform you that Geoff, Eric and Derek are already hard at work making those changes.

It is too soon to ascertain the assessments of the report by other leading biologists and taxonomists. Some understandable confusion has resulted from the placement of morphologically disparate species in *subgenus Tillandsia*, based apparently on "weakly supported" DNA data. This

and other issues will likely be revisited by the authors. An incomplete, complex system for Tillandsioids cannot be totally neat and tidy. The bromeliad world owes a debt of gratitude to the authors of this 2016 report and to their colleagues, researchers, lab assistants etc. for this major advance in bromeliad taxonomy.

NEW WEBSITE IS UP
SaveBromeliads.com



UPCOMING EVENTS

February 25, 2017
10:00AM to 3:30 PM
Community Day
13601 Old Cutler Rd.
Miami, FL
<http://friendsofchapmanfield.weebly.com/community-day.html>



March 4, 2017
11:00 AM to 3:00 PM
Picnic and Plant Purchase at Bullis Bromeliads
24350 SW 147 Avenue
Miami, FL 33032
Free to Members



April 15-16, 2017
Orchid & Bromeliad Show
Flamingo Park
3750 S. Flamingo Rd,
Davie, FL 33330-1614
954- 473-2955



April 22-23, 2017
Tentative Date Annual Show and Sale
10901 Old Cutler Road
Coral Gables, FL 33156



Bromeliads by the Bay Extravaganza
August 4-5, 2017
Clarion Hotel
2701 E. Fowler Ave., Tampa, FL 33612
813-971-4710
<http://www.bromeliadguildoftampabay.org/news>
Rate guaranteed by hotel until July 13, 2017



Get Those Corks to Work for You

First, gather those corks.



Attach plant cutting to the corks.



Then find a plant with pups to spare.



Cut off a spare pup.



Hang the newly attached plant



**BROMELIAD SOCIETY OF SOUTH FLORIDA
BSSF, Inc.
2017 MEMBERSHIP RENEWAL**

(PLEASE PRINT) NAME(S) _____

(Couples - please include BOTH first names)

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Include e-mail address in the roster? (Y/N) Yes No

E-mail BromeliAdvisory? (Y/N) Yes No (You will not receive a hard copy)

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IF ANY OF THE ABOVE INFORMATION IS DIFFERENT FROM LAST YEAR,
PLEASE **HIGHLIGHT** OR UNDERLINE

Please renew my(our) membership in the BROMELIAD SOCIETY OF SOUTH FLORIDA
for the period of March 1, 2017 to February 28, 2018.

Check the category: Single membership \$25.00
 Dual membership \$35.00

Dual members enjoy all the privileges of active membership, but receive only one
copy of the BromeliAdvisory.

**DUES MUST BE RECEIVED BY MARCH 1, 2016, IN ORDER FOR YOU TO BE
INCLUDED IN THE 2016 ROSTER**

Please mail completed form and check

(Payable to BSSF, Inc.) to:

Maureen Adelman
9421 SW 134 Street
Miami, FL 33176

Or E-Mail this form to:

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You can pay up to 5 years at the rates
described above. All payments are
NONREFUNDABLE

BULLIS BROMELIAD PICNIC

March 4, 2017
11:00 AM to 3:00 PM
24350 SW 147 Avenue
Homestead, FL 33032



Free to Members
\$10.00 for guests

If guests become members, then it is free

To the members – lunch is on us, and you have access to Bullis which normally limits sales to wholesale vendors. This is almost too good to be true. If you have not been there, this is a must.