



# LOUISIANA SOCIETY FOR HORTICULTURAL RESEARCH

Fall 2017

# COMPOST PILE

Another year is about to end and soon we will be meeting for the next Louisiana Society for Horticultural Research, LSHR, annual meeting where we pick up another load of releases, buy more auction items and have a nice lunch at the meeting in the Petroleum Club. The meeting will be Saturday March 17, 2018. Yes, it is on St. Patrick Day!, which I think is appropriate.

Some might wonder what the LSHR does besides hand out plant releases and gather reports on them. So, here is some information on what the LSHR Board does during the year: the board meets twice a year to prep for the annual meeting agenda, vote on new member nominations, nominations of board members, which are voted on during the annual meeting, vote on scholarship awards and votes on projects to help fund, selects speakers for the annual meeting, produce the Compost Pile and a little more, like the procure of plant releases and auction items. But, at the board meeting, it is not all work since there is always a good meal and good company.

On another note, the ULL Greenhouses, which the LSHR supports, will host the Fes de Fleur on Saturday, April 4, 2018.

I have a release that is one of my favorites. It is Shooting Star Lily - Echeandia chandleri 'Sierra Chiquita', (photo below), which was released in 2016. I planted it in a bed behind a Sweet Bay Magnolia and it has grown with very little attention. In fact, I had forgotten about it and one day, I saw a little yellow bloom in the bed. It looked like a weed, except for the blooms. The foliage is an inch wide at the base tapering to a point and a medium to light green color. The flower spike grew to around three feet tall with the creamy yellow star like blooms. It has bloomed the since mid October and is still blooming at present in a raised, well drained bed.



(Photo from K. Kimball)

Have a great fall/winter season and thanks again for all your support of the LSHR

Kevin Kimball

Please cut out or photo copy this membership renewal and mail with your payment to Bean Counter JoAnn Pugh

LOUISIANA SOCIETY OF HORTICULTURAL RESEARCH

**DUE BY December 31, 2017**

## MEMBERSHIP DUE NOTICE

## FOR CALENDAR YEAR 2018

ACTIVE \$15     Sustaining     Donor \$100 and up

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**Use form, can copy form or write all info**

**and mail your payment to:**

**LSHR, PO Box 51366, Lafayette, LA 70505**



## President's Message

Another season is here which brings great opportunities in the Garden. When most gardeners are getting ready to plant trees and shrubs, putting those spring blooming bulbs in and planting winter annuals, we are facing a situation where we (really Glenda) is trying to decide which of her babies will be moved to another home. The other day she said she was making a list of plants she just had to take with her and had already gotten to over a hundred. I knew we were facing a problem. Decisions, decisions, decisions. Going from over 4 acres with special flowers and fruit to a postage size lot will require lots of decisions. Gardening is an ongoing hobby.

In reference to that I want to remind you to be checking on your plant releases from March and making notes of their progress. Remember our society is one of research so you must fill out your report on the plants and bring with you to the spring meeting March 17. No report then no box of 2018 releases.

That same day we'll also have the Plant and Silent Auctions followed by a great speaker at our luncheon at the Petroleum Club. We welcome Paul Soniat to entertain us.

*Norman Balliviero*

## Save the Date for the 27th Annual Festival des Fleurs de Louisiane 2017

Saturday, April 14, 2018

Hours:

8 a.m. - 4 p.m. on Saturday, April 14

more info at

<http://inhc.louisiana.edu/festival.html>

An updated report from last year:



## Growing Olives in Louisiana: An Initial Evaluation

Jason Stagg, Owings, Allen D. 10/2/2017

While many Southern gardeners are familiar with the intoxicatingly sweet fragrance of the ubiquitous sweet olive tree in Louisiana landscapes, the true edible olive (*Olea europaea*) is beginning to find its way into many backyard gardens and commercial landscapes. Numerous retail nurseries are now offering 3-gallon container size olive trees for sale in south Louisiana. As an ornamental landscape plant, olives offer an unusual silver-green foliage color on an easily-pruned medium-sized tree.

More traditionally, olives are known as a useful orchard crop for producing culinary olive oil, table or eating olives, and olive oil-derived products for skin and hair care. The United States is the world's largest consumer of olive oil, but only about five percent is produced domestically. With more than 35,000 acres in cultivation, California has long been the largest domestic olive producer. However, the last decade has witnessed the growth of olive orchards in southern states such as Texas, Georgia and Florida. Texas alone now boasts more than 4,000 acres of olive trees, putting a new twist on the old concept of an oil boom in that state.

This ever-increasing interest in growing olive trees in Louisiana began generating quite a few questions for the LSU AgCenter. But because olives had never been university-evaluated in Louisiana, researchers knew they had an opportunity to investigate a potential new specialty crop for the state. In fact, a 2015 survey of Louisiana Master Gardeners indicated great interest in learning about and growing olive trees, but there was little existing knowledge or

experience with the crop.

In May 2015, the LSU AgCenter Hammond Research Station planted nearly 100 olive trees on about an acre of land to begin an initial varietal evaluation on establishment success in Louisiana's challenging climate. The project is funded by the Specialty Crop Block Grant Program administered by the Louisiana Department of Agriculture and Forestry.

Olive varietals (a synonym for varieties) represent a broad spectrum of fruit size and tree growth habit. The Hammond orchard includes 15 varietals, with four trees of each planted within the core evaluation area. They are Anglandau, Arbequina, Arbosana, Bouteillan, Chemlali, Coratina, Frantoio, Grossane, Koroneiki, Manzanilla, Maurino, Mission, Oueslati, Pendolino and Picual.

Because of regional supply constraints, different varietals were not available in uniform container sizes and tree heights. Tree spacing in the trial area is classified as a traditional orchard layout, with 18 feet between individual trees and 25 feet between rows. This large spacing was used so the true tree shape can be observed. Olives can grow to be large trees when little pruning is done, easily reaching 15 feet wide and more than 20 feet tall.



(Photo courtesy of Jason Stagg)

Individual olive trees are planted 15-25 feet apart in rows 25 feet apart in an initial varietal evaluation at the Hammond Research Station in Hammond, Louisiana. Scientists are trying to find varieties that will grow in Louisiana.

Most modern orchards plant trees much closer together in a high-density or super high-density orchard layout.

Olives have shallow root systems and require good drainage, so orchards should have raised planting rows that are at least 12-18 inches higher than the surrounding soil level. Olives prefer a neutral to slightly alkaline soil pH and should be planted in full sun.

Louisiana's humid climate and high annual rainfall totals pose significant challenges to the Mediterranean olive tree, but occasional winter arctic cold blasts pose the most risk to growing olives in Louisiana long-term. In contrast, Texas has a fairly large "sweet spot" for more safely growing olives in the south central and southeastern areas of that state. Southeastern Georgia and central Florida also share this lower risk of these damaging winter temperatures. Although olives require a certain amount of vernalization (cool but not cold) during winter, temperatures that drop below 15-20 degrees can cause severe injury to olives, especially young trees with small trunks.

Even though the full two-year trial period has not yet been completed, trends in the initial results are apparent. The evaluation orchard at Hammond experienced exactly the type of harsh climactic swings plants routinely endure every few years in Louisiana. March and August 2016 brought historic flooding at the station, with standing water in the olive orchard during the August event. Surprisingly, most olive varietals appeared to be unaffected by the historic rainfall totals in 2016. The research station has sandy soil that drains well, so this probably helped in their resilience. While some preliminary evidence has pointed to possible root rot fungal pathogens in a few specimens, those particular trees actually died before the major floods as a result of a leaky irrigation valve at the lowest elevation of the planting area.

While the 2015-2016 winter was mild, the 2016-2017 winter season concentrated all its



Teas, continued from page 3

frigid nastiness in one weekend in January 2017. Unseasonably warm weather yielded to an arctic front that pushed south and dropped nighttime temperatures to 22 degrees two nights in a row. The resulting damage of burned leaves and bark splitting on some varieties was expected, but a surprising number of trees pulled through with barely any damage.

As with any new orchard planting, the disturbed soil exploded with extremely high weed pressure. Although a number of herbicides are labeled for use around olives, the trees are none the less quite sensitive to certain active ingredients, such as glyphosate. In Louisiana, typical recommendations are to keep the orchard floor clean of weeds and leaf matter. That goal was achieved but caused damage through herbicide drift to some of the smaller olive trees.

Damaging insect pressure was not widespread, with black scale (*Saissetia oleae*) insects being the most common. Winter temperatures and an application of horticultural oil and carbaryl insecticide significantly reduced the population.

Despite all these challenges, Anglandau, Arbequina, Bouteillan, Grossane, Manzanilla and Picual appear to be the best-established varieties after



(Photo by Rick Bogren)

Olives can be grown both for fruit and as an ornamental plant in the landscape. The fruits require six to eight months for full maturation. Table olives are harvested earlier, when they're firm, and oil olives are left on trees until oil content reaches 20 to 30 percent in late fall.

the first year.

Arbosana, Frantoio, Koroneiki and Mission established well but suffered greater cold damage as shown by splitting bark or excessive defoliation. However, Mission and Koroneiki appear to be recovering better than others. Bouteillan, Grossane and Picual lead in ornamental value so far.

With many promising varieties after nearly two rough years in the ground, olives may have the potential to be successfully established as a small orchard crop in south Louisiana, especially south of the I-10/I-12 corridor. With so much disease and insect pressure now weighing on citrus trees in Louisiana, some growers may find olives could potentially be a partial replacement crop. In addition, the ornamental value of certain varieties provides good cause for olives to be considered when choosing landscape plant material. So whether someone is interested in planting 100 trees or just one, olives may prove to be fairly adaptable to Louisiana's unique and challenging climate.

Jason Stagg is an instructor and Allen Owings was resident director and professor (now retired) at the Hammond Research Station.

Acknowledgements: Guidance and assistance from Charlie Johnson, retired horticulture professor; Raj Singh, assistant professor in the Department of Plant Pathology and Crop Physiology; and Dennis Ring, professor in the Department of Entomology.



(Photo by Rick Bogren)

LSU AgCenter horticulturist Jason Stagg stands in the olive evaluation area at the Hammond Research Station. Olives are primarily grown for the fruit, but many varieties have considerable ornamental value in a home or commercial landscape setting. They are related to ash, privet, jasmine, forsythia, sweet olives and fringe trees.

*Bean counter report (treasurer's)*  
Fall 2017

That time of year to **(1) PAY DUES**, Less than 35 days left in 2017.

Holiday season is knocking at the door, the TV has Christmas commercials galore.

That also means your 2018 LSHR dues coming up, remember **(2) PAY DUES!**

This is the fifth year that membership dues notice appear in fall issue of THE COMPOST PILE. **NO NOTICE OF DUES** will be mailed out, please use the renewal form in this issue to **(3) PAY DUES**. The renewal form can be cut out, copied, or hand written with all information to send with your payment **BEFORE DECEMBER 31, 2017**. The email address information will be used only for the society's needs and never distributed.

**NO MEMBERSHIP CARDS** will be mailed. Members will use their spring issue of THE COMPOST PILE that shows mailing label as proof current membership when registering for new releases plant in MARCH 2018. Your issue will be returned to YOU and will be marked with your box issued number to pick up. This helps to keep the flow going smoothly in issuing releases. Much easier to find your COMPOST PILE with all the information of dates and times than a lost card!

Start your 2018 resolution early, **(4) PAY DUES**. It will make YOU feel great, and ME TOO!! Looking forward to spring meeting to see all LSHR plant loving folks, Mark your calendar March 17, 2018, more information in spring issue, but for now **(5) PAY DUES!**

**JOANN PUGH,**  
treasurer \$\$\$\$ bean counter  
joannpugh@hotmail.com

PS: can you tell I count everything and counting on you to **(6) PAY DUES!!**

An updated report from last year:

## **Insect and Disease Challenges for Growing the Tea Plant**

Yan Chen and Allen Owings

Worldwide, tea is the most popular drink after water, and all types of tea — white, green, black, oolong and fermented (such as puerh) — come from leaves of one plant, *Camellia sinensis* (Figure 1). Estimated market value of tea in the U.S., including bagged tea, bottled tea, loose tea and tea consumed at restaurants, was \$12 billion in 2016, according to the Tea Association of the USA. This demand is almost completely met by imports, making the United States the second largest tea importing country only after Russia.



Figure 1. Tea (*Camellia sinensis*) plants being evaluated at the Hammond Research Station in Hammond, Louisiana.

The microclimates and acidic soils in many areas across the country are suitable for growing tea, and commercial tea production has been growing in recent years because of demand for locally grown tea. Tea farms have been established in Mississippi, South Carolina, Texas and Idaho, in addition to farms in Alabama, California, Georgia, Florida, Hawaii, Michigan, New Jersey, Ohio and Washington State. In addition, growers of other specialty crops can add tea to their production because tea has similar growing requirements to blueberry and citrus.

Teas, continues on page 6



Teas, continued from page 5

Since 2013, the LSU AgCenter Hammond Research Station has worked with tea growers and enthusiasts in Louisiana. Two orchard growers recently planted tea as an additional crop in their citrus orchards, and two other growers are growing 1-gallon container plants for sale to potential farmers and the public. In addition, one grower has been collecting tea cultivars and is doing seedling selection and propagation for tea cultivars suitable for Louisiana conditions. The growers have just started growing tea, and it will take three to four years before they can harvest a large enough quantity to be sold commercially or processed for packaging.

Researchers at the Hammond station are evaluating a collection of named varieties, including Big Leaf, Small Leaf, Red Leaf and Golden Leaf, and seedling selections for growth habit, vigor, and pest and disease issues. The two most challenging pests and two most challenging diseases are listed below. Documentation of economically important pests helps prepare growers and gardening public for a more successful growing experience.

Tea scale (*Fiorinia theae*) is an armored scale infesting almost all species in the genus of camellia. A layer of a white fluffy substance on the underside of the leaves is a good indication of infestation (Figure 2a). Female adults and eggs hide beneath a dark brown waxy covering (Figure 2b). Young nymphs hatch from eggs and move about to find a new location to settle down and feed on plant sap through a mouth part inserted into leaf tissue. Males are winged and rarely seen. Without treatment, plants can be killed by severe defoliation. An insect growth regulator such as pyriproxyfen or azadirachtin mimics the effects of insects' own juvenile hormone and prevents developing into adults. However, they will not kill adults. It is often suggested to mix them with a horticulture oil to control both immatures and adults. Many growth regulators and oil products are approved for organic vegetable production.

BEAN COUNTER REMINDER  
PLEASE SEND IN YOUR DUES AS  
SOON AS YOU CAN  
**THANKS**

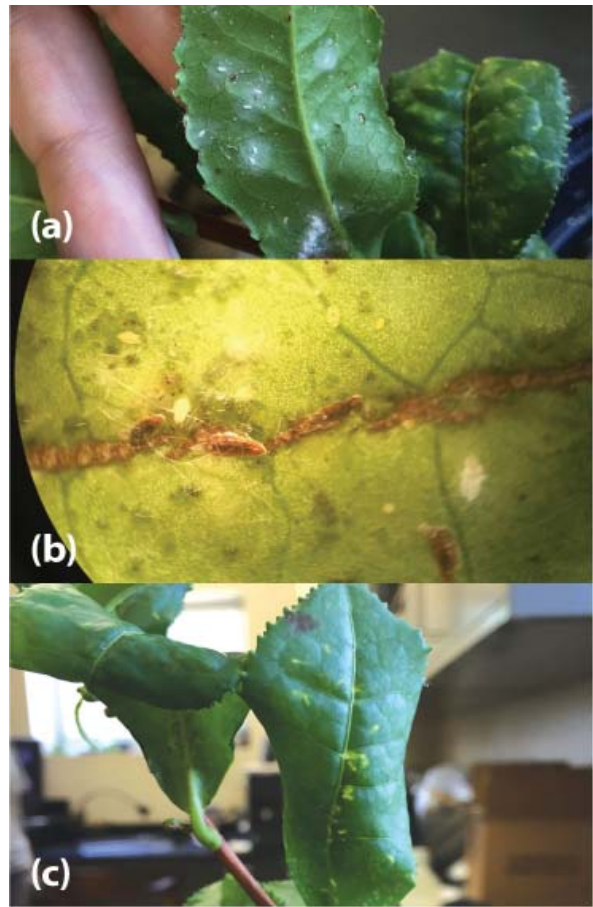


Figure 2. Tea scales with fluffy white exudes on the lower side of the leaf (a); scale adults under a microscope (b); and scales causing yellowing on upper side of tea leaves (c).

Because tea is a relatively new crop, it is often missing from insecticide labels, but products registered for vegetables are safe to use on tea.

Chili thrips (*Scirtothrips dorsalis*) prefer feeding on tender tea leaves. This tiny thrips is only 0.03 inch in length and hard to see (Figure 3a). However, the brown, corky stripes on undersides of leaves are typical and can be confirmed with inspection under a microscope (Fig 3b). Other damages include leaf distortion and defoliation. Severely damaged plants may have no leaves suitable for harvesting.

Spinosad is very effective against chili thrips, with several products approved for organic vegetable production. Horticulture oil can provide some suppression.

Insecticides should be applied during the time of the day when thrips are active between 9 a.m. and noon and late afternoon when weather is not too hot.

Other pests observed on tea during the

evaluations at Hammond include leafhoppers, flea beetles and inchworms (Figures 4a to d). Damage from these pests is transitional and insignificant. However, severe damage from leafhopper has been documented in traditional tea-producing countries, and feeding by a specific leafhopper, *Jacobiasca formosana*, actually contributes to the unique fragrance in some oolong and black teas such as Oriental Beauty.

Diseases on tea leaves directly affect harvest. Two diseases have been identified from plants grown in containers: blister blight (*Exobasidium vexans*) and black blight (*Corticium koleroga*). Symptoms of blister blight begin with circular blisters on leaf undersides, then become velvety, circular brown spots (Figure 5). Black blight requires high humidity to occur. Leaves and twigs turn brown, and dead leaves hang on thin threads from the branches. Both diseases are more prevalent when plants are under pressure such as high pH or water stress.

No diseases have been observed on plants grown in raised beds in the evaluation garden where irrigation and partial shade are provided.

*Yan Chen is an associate professor and Allen Owings was resident director at the Hammond Research Station in Hammond, Louisiana, now retired.*

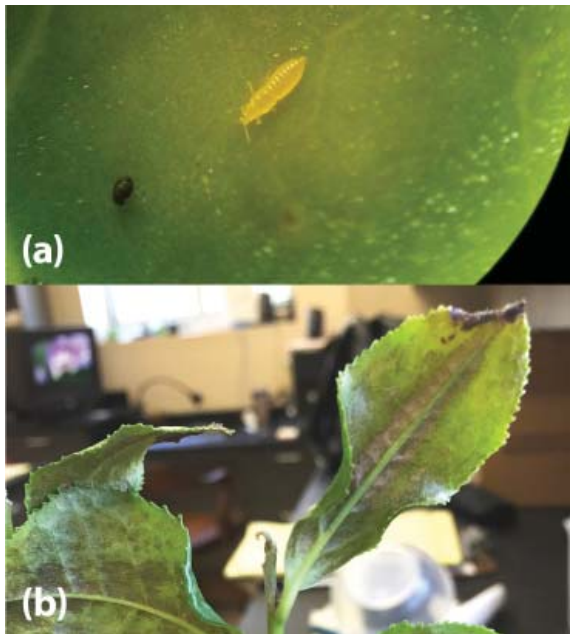


Figure 3. A chili thrips nymph (a) and the typical brown corky stripes on the lower side of tea leaves caused by chili thrips (b).



Figure 4. Leafhopper nymphs covered by white fluffy exudes (a); flea beetle damage on tea leaf (b); and inchworm feeding on young tea leaves (c).

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Glenda Balliviero	2016-17, 2017-18, 2018-19

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IMPORTANT DATE FOR 2018  
Mark or set your calendar for the Spring 2018 LSHR annual meeting set at the Ira Nelson Hort. Center:  
**SATURDAY, MARCH 17, 2018**

## **FAVORITE PLANT RELEASE**

Clerodendrum walllichii – Bridal Veil – is at the very top of my favorite LSHR releases.

The beauty of the gorgeous loose panicles of white cascading flowers among the shiny pointed green leaves of this shrub certainly brings beauty to my eyes and of course to my porch and shady area. The dangling sprays of flowers on this plant can reach as long as 8" to 9". It is necessary to keep the soil moist especially when in flower or they will fall off. Mine have been in large pots which are kept in a shaded area in summer and on my closed in back porch in the winter. Partial shade is definitely a requirement for this beauty and protection from freezing temperatures. I will definitely figure out how to make a shady area at our home in Belle Chasse as the yard does not have the first tree. It is still so hard for me to believe that several of our members threw away or gave away this beauty classifying it with other invasive Clerodendrum. I for one Love it!

*By Glenda Balliviero*

