

# Louisiana Agricultural Consultants Association Turn Row Talk

**Spring Issue 2020** 

Volume 29

President's Column Blaine Viator, Ph.D. Calvin Viator, Ph.D. & Associates, LLC

First, I would like to thank our membership for allowing me to serve once again as LACA President. I am looking forward to 2020 for both LACA and our grower clients.

At the time of writing this article, our state, country, and world is in the middle of the COVID-19 pandemic. The lockdown resulting in school, business, and other industries is already taking its toll on the economy. I was very pleased to see that the USDA Secretary, Homeland Security, and the White House emphasized early on that U.S. Agriculture is considered "critical infrastructure" and declared that all farmers, farm workers, farm support personnel (like agricultural consultants), retailers, etc. are considered "essential" employees and could resume work as usual to provide food and fiber. My spouse, Allison expressed some concern with me going into the fields afraid that I would bring back the virus to our home. After we talked, we agreed the safest place one can be right now is in a crop field doing what we do. Although we still interact with our growers in the field, a little distance is kept and our standard handshake is put on hold for now, although tough for us to do!

A least as of now, we have not yet seen any major impact on crop production in our area due to the pandemic. We had some slow deliveries of dry fertilizer in some cases. We also had some problems getting agricultural lime, however that was due to high river stages and barging logistics.

Sugarcane producers rely heavily on H2A and H2B migrant workers to run farm equipment and work in the sugar mills. Thus far, most of these crucial workers had work visas already in place prior to the border closings and were able to arrive to the farms and mills timely.

Although very bad for the oil and gas industry and the many employees and their families that make their living in this sector, fuel prices are starting to decline rapidly and some economists are expecting that trend to continue. Commodity prices are uncertain, and I am sure we will see a roller coaster in the markets due to trade issues resulting from the COVID-19 pandemic. Regardless of the industry or sector one works in, there is no doubt every American will be affected.

Here in the southern part of the state, we have had two consecutive mild winters, and already above normal foliar diseases and insects are being seen in the field. We are anticipating more red-banded stinkbug pressure in our soybeans this season based on sweeps of leguminous weeds. Who knows what else will get thrown at us in the field this season?

Which brings me to what I feel is one of the greatest benefits of being a LACA member. It's not just going to the meeting and getting recertified, but the networking that occurs both at the meeting and during the crop season that becomes a powerful benefit in our organization. Rather than relying on only one or two sets of eyes and boots on the ground, LACA consultants also benefit greatly from collaborating with fellow members in different parts of the state throughout the growing season to share observations and tactics. The LACA annual directory provided to LACA members each year has updated contact information for our entire membership for this reason.

I can think of many cases where a fellow LACA consultant or LACA member helped me with unique problems in the field. Most memorable was the first year we had to deal with the red-banded stinkbug. In the year 2001, Dr. Calvin (Dad) and I were sweeping soybeans and he found a small stinkbug in his net he had never seen before in his decades of experience. At first, he shrugged it off as just a "passer-by". But in the next week or so, we started finding a few more each day. A season or two later, they blew up in our fields. After applying a standard pyrethroid for the range of stinkbug species exceeding threshold, this new stinkbug took over the fields and was very concerning as our soybean crop was approaching growth stage R5. We can vividly remember a call from a consultant friend in south Texas that year asking if "there was anything else besides throwing a brick at them that would kill this species". At first, the stinkbug was identified as the red-shouldered stinkbug. It was later found to be the red-banded stinkbug. LACA consultants were networking daily trying every chemistry

labeled, even much older ones, and at one point we thought the soybean crop was lost. However, one veteran LACA consultant remembered one chemistry that was used long ago in soybeans – acephate. He found only one generic acephate product that still had a soybean label and had his client put it out. *It worked!* The word got out through the LACA network via email and phone calls quickly. Product was brought in, and we managed to make a decent soybean crop that year. Yes, since then, other novel chemistries have been developed and labeled that are effective on red-banded stinkbugs, but acephate is still a key chemistry in managing red-banded stinkbugs in soybean, not only in Louisiana, but throughout the Delta.

Imagine if the agricultural consultant that figured this problem out decided to only help his grower clients and not network with his fellow LACA colleagues? To this day, whenever I see him at our annual meeting or talk to him on the phone (I won't mention his name since calling him a "veteran" may be misconstrued as an "old timer"), I thank him for helping us to save our soybean crop that season.

LACA is important in our profession not only for the network of knowledge and experience. Continuing education, no matter how many seasons' experience one has behind them, is crucial to keep up with the constantly evolving technologies and crop production issues. I learn new things at every meeting I have attend.

Many of our members are also very active in governmental affairs affecting not only consultants, but agriculture in general. We have LACA members serving on the Louisiana Agricultural Finance Authority, the LDAF Pesticide Commission, and the LDAF Boll Weevil Eradication Committee, to name just a few.

I am very aware that the majority of those receiving this newsletter are already members of LACA, and already appreciate the value our organization has above and beyond recertification. If you know any state certified agricultural consultant, researcher, retailer, or input manufacturer that is not a member of LACA, I request you take the time to share this newsletter and encourage them to become an active member. The more experienced pairs of eyes and boots on the ground we have in our network only makes our profession stronger and more effective in assisting Louisiana agriculture. Best wishes for a successful and prosperous crop season. *Blaine Viator, Ph.D., 2020 LACA* 



#### Past President's Thoughts

Richard Costello, Ph.D. Boeuf Delta Ag Services Macon Delta Land

It is hard to believe we have reached another planting season. Seems that the winters are getting shorter, or I am just a lot busier than I used to be during the winter. Meetings are starting earlier and it feels like there are more of them. I always look forward to the opportunity to interact with our counterparts and share information, stories and a drink or two. A lot of the time we find that we are all facing the same struggles no matter where we are from.

But the end of winter finally comes, if you call what we had this year a winter, and it is time to switch our thoughts to the season before us. We begin to develop game plans for how we expect, hope the growing season will go. We start thinking about how to combat pests we know are coming. But no matter how much we plan, we should always be prepared to change plans if need be.

As I am writing we are in the midst of one of the worst pandemics the world has seen. This has created many uncertainties. Markets are volatile and decisions on what to plant are very difficult. However, we must continue. Corn planting has started and some is already up in Northeast Louisiana and I am sure that rice has been planted south of here. Even though it is hard to be upbeat about the future we must keep our head up and move forward. There is always some excitement in starting a new year and seeing earth being tilled and seed go in the ground.

I hope by the time you read this that the Corona virus curve has flattened and the country is back on track. Hopefully the new season brings bright optimism of things to come. I wish everyone a great season and I look forward to seeing you in the future.





#### <u>My Thoughts</u> James L. "Jim" Griffin Professor Emeritus, Louisiana State University

For those of you who may not know me or remember me, at one time I was employed by the LSU AgCenter as a weed scientist and was an active participant in the Louisiana Agricultural Consultants Association (LACA) activities. I retired at the end of 2015 after 36 years of service and moved to north Mississippi. I was fortunate to purchase a small farm in Batesville, MS, where I have a 20-acre, small square-bale hay operation that caters to horse folks. This has kept me busy and has allowed me to spend quality time with my son-in-law and two grandsons.

When one retires from an organization it is sometimes said that "there will be big shoes to fill" or concerns arise as to how the retiree will be replaced (unfortunately this was not the case when I retired). A former colleague of mine described it this way, "it is much like putting your hand in a bucket of water and pulling it out - the water goes right back together, and so will the organization when you retire." An administrator early in my career made it clear to me that I could be replaced. My quick response was that he could also be replaced, which did not go over very well. Truth is, we can all be replaced. Most of my AgCenter colleagues did not come into their present positions with much experience and knowledge of how to be successful. Listening and learning and hard work, along with the wisdom to recognize needs of the clientele are most often what contribute to one's success. Although the expertise and insight of someone retiring can be a loss, someone will fill the void and with time will become proficient and contribute to the organization.

Some may recall that the first eight years of my career in Louisiana were spent at the Rice Research Station in Crowley, where I was the agronomist primarily responsible for soybeans. I was fortunate to not only work in soybean weed control but also to work with Dr. John Baker in rice weed control. From the experience gained at the Rice Station, I accepted a weed scientist position on the Baton Rouge campus in the Department of Plant Pathology and Crop Physiology. My responsibilities included teaching and weed research in sugarcane, soybeans, and corn. Shortly after arrival in early 1988, sugarcane growers and millers and industry representatives were invited to a meeting on campus to provide insight into the direction of the AgCenter sugarcane research and extension programs. After introducing myself to some of the sugarcane growers the initial response was "you are not from around here, are you?" I guess my rearing in the Mississippi Delta and the corresponding accent tipped them off. I was further questioned as to my experience with sugarcane, of which I had none other than chewing sugarcane stalk pieces at some point in my youth. One grower asked me how could I be hired to conduct research in sugarcane when I had never worked in the crop? To my surprise, another grower came to my defense and stated that not having sugarcane experience might just be a good

thing since I come into the industry with no preconceived notions of how things had always been done. He followed by stating that I might be able to offer a different perspective that could be beneficial to the industry. I never forgot that grower and several years later his son was one of my graduate students. I quickly learned that weed control in sugarcane is unique and challenging, and much more intensive than other agronomic crops. I am very proud of being accepted by the sugarcane industry even though I was not a native of Louisiana, was not a graduate of LSU, and did not grow up on a sugarcane farm. I will always have a special place in my heart for the Louisiana sugarcane industry.

During my tenure with LSU I was fortunate to interact with students both in the classroom and while serving as major professor. Any recognition of my research accomplishments is also shared with my graduate students. The success of any research program is dependent on funding support. I appreciate the American Sugarcane League, the Soybean and Grain Research and Promotion Board, and agricultural chemical companies for their financial support. Special thanks are also expressed to the many growers who allowed me and my students to conduct research on their farms, and to the county agents who introduced me to the growers and assisted with research.

In my opinion, LACA is a special organization. The meeting each year was one of the most important meetings that I attended. The interactions with folks were invaluable and were especially helpful in planning my research program, as well as research projects for graduate students. The mutual respect shown among the consultants, LSU AgCenter researchers and extension agents, and agricultural industry reps, along with the appreciation of how each of these entities contribute to Louisiana agriculture are truly remarkable. The support of the agricultural consultants for LSU AgCenter funding by the legislature has always been appreciated and beneficial.

In closing, we in agriculture should take every opportunity to promote our profession and to recruit young folks to agricultural careers. I recall hearing Dr. Larry Rogers pose the question, "who should be interested in agriculture?" His answer was, "anyone who eats food, wears clothes, or lives in a house." That pretty much includes everyone. Whether an employee of the LSU AgCenter or a provider of services as a consultant or an agricultural industry representative, it is critically important that we never forget who we are working for. Without the growers and the production of agricultural products, there would be little need for the folks who serve this industry. It is my hope that LACA will remain strong and that the interaction with all involved in agricultural production will continue to benefit Louisiana agriculture. I hope that 2020 will be a safe and prosperous year for all.

My contact information is: jgriffin@agcenter.lsu.edu and 225-281-9370.



Colt Hardee accepted his scholarship check from Louisiana Land Bank CEO, Stephen Austin.

#### **Colt Hardee (Undergraduate)**

Colt has been involved in the world of agriculture since his birth, growing up on a rice and crawfish farm in Kaplan, Louisiana. He ran crawfish traps in the morning before school and spent his summers hauling rice to the dryers. Since starting at LSU, he has gotten involved in the College of Agriculture by becoming an Ag Ambassador, a Student Government member, and an Ag Student Council officer. He also has worked multiple Ag jobs including in the Dairy Store, the Food Incubator, Recruitment and Retention, and as a researcher. Currently serving as the Agribusiness Club President and the Founder/Captain of the Agribusiness Quiz Bowl, Colt led the team to a National Championship this past summer. He was also named the Student President of the Agricultural and Applied Economics Association. In his free time, he founded and presides over the Cajun Club at LSU, also serving as a "Cajun Ambassador" through the Cajun French music that he plays/sings on the accordion. Only a junior, Colt was named LSU Undergraduate Student Leader of the Year and led the Agribusiness Club to become LSU's Student Organization of the Year. Colt is honored to be a 2020 recipient of the LACA scholarship funded by Louisiana Land Bank, ACA.

#### Patrick Dean Jolly (Undergraduate)

An Agribusiness major at Louisiana State University, Patrick committed to the College of Agriculture after being motivated by the practical application of agriculture: everyone must eat. Although Patrick did not grow up surrounded by agriculture, he has worked hard to become more knowledgeable in the field working two summers alongside Lance Rodriguez as an Agricultural Consulting Scout, specializing in sugar cane and soybeans. He also worked for the Baton Rouge Country Club providing needed services to keep their golf course in pristine condition. He was honored on the President's List in the Spring and Fall 2018 semesters and the Dean's List in the Fall 2017 and the Spring 2019 semesters. Maintaining a 3.9 overall GPA while at LSU, Patrick is excited about using the LACA scholarship funded by Grady and Barbara Coburn of Pest Management Enterprises, to dive deeper into his studies in the field of agriculture.



Patrick Dean Jolly accepted his scholarship check from Grady and Barbara Coburn of Pest Management Enterprises.

#### John Ontoy (Graduate)

A Masters student in the Department of Plant Pathology at Louisiana State University, John completed his Bachelor of Science in Plant Pathology from the University of the Philippines Los Banos before continuing his education at LSU. He currently has six peer reviewed publications. At LSU, he has worked conducting research involving QTL mapping of salinity tolerance in rice, disease resistance for bacterial panicle blight and sheath blight in rice, and whole genome sequence analysis of rice varieties for allele and gene mining for disease resistance. Initial data has identified a major QTL that can confer resistance to existing Louisiana rice varieties against disease. John is honored to be a recipient of the LACA scholarship funded by Ray and Dorothy Young, so his vision as an agricultural scientist working towards food sustainability, security, and accessibility can be accomplished.



John Ontoy accepted his scholarship check from Ray and Dorothy Young.



Scott Lee accepted his scholarship check from Dennis Long of Belchim Crop Protection USA. Dennis is passionate about this sponsorship since he was on the receiving end of a LACA scholarship when he was a student at LSU.

#### Scott Lee (Doctoral)

A PhD student at Louisiana State University, Scott completed his Bachelors of Biological Science at the University of Wisconsin-Madison. While he was at UW, he completed several research projects, including using isotopic 15N/14N ratios to determine the trophic position of the entomophilous fungus, Beauveria bassiana. Scott also worked for the Metropolitan Mosquito Control District and for the Conservation Corps of Minnesota and Iowa; he worked on managing wildlife habitats and prescribe burning. He is currently working on his PhD dissertation at LSU which focuses on delineating the resurgence of soybean looper. The main goal of his research is to provide Louisiana consultants and producers useful information that will aid management decisions to maximize profits while reducing inputs. His research has included performing insecticide field trials, molecular techniques, insecticide efficacy, laboratory bioassays, and greenhouse experiments. Scott is involved with the LSU Entomology club, serving as club treasurer, Ag magic, and BREC Bioblitz. He is honored to be a recipient of the LACA scholarship funded by Belchim Crop Protection USA to continue that drive and perseverance to the field of agriculture.

#### Taproot Decline of Soybean: Bridging the Gap Between Applied and Fundamental Research

Teddy Garcia-Aroca 2019 Recipient of the Ray & Dorothy Young Endowed Assistantship in Integrated Pest Management

My name is Teddy Garcia-Aroca. I am a Ph.D. student in the Department of Plant Pathology & Crop Physiology at the Louisiana State University AgCenter under the supervision of Drs. Vinson Doyle and Trey Price. My research is being conducted in collaboration with researchers from several institutions in the southern U.S. We are studying an emerging disease of soybean called "Taproot Decline (TRD)". The disease has been observed in the region in the last few decades, but the symptoms observed on soybean foliage and roots that are associated with the disease were not described until 2017 by Allen et al. However, our fundamental understanding of the disease, including disease etiology, pathogen identity to species level, the origin of the pathogen, epidemiology, and mechanism(s) of infection remain unknown. We first explored the possibility that this is a novel pathogen that infects soybean, since it shares morphological and molecular similarities with species in the genus Xylaria, in the family Xylariaceae, most of which are not pathogenic. We used representative isolates of the pathogen collected in the region to extract and sequence their DNA in order to compare with DNA sequences of described species in the genus Xylaria. We have demonstrated that this pathogen is unique and represents a species new to science. The scientific article describing this species and giving it a name has been submitted and is currently under review. We are currently focusing on the next questions aimed to 1) enhance our understanding of the pathogen at the population level, and 2) determine what is responsible for the foliar symptoms observed on diseased soybean plants, while developing an in vitro protocol for screening cultivars. We are performing whole-genome sequencing for more than a hundred isolates collected in the region in order to characterize the underlying diversity within pathogen populations. We think we can use this kind of knowledge to determine the most frequent pathogenic lineages in the region and test them against soybean cultivars to ensure any identified resistance is robust to variation in the pathogen population. In separate experiments, we have tested cell-free culture filtrates of local strains of the pathogen against soybean cuttings in in vitro assays in order to determine if the fungus produces any systemic secondary metabolites that are responsible for foliar symptoms. The results of this experiment allowed us to consistently show that the Xylaria sp. associated with TRD does produce systemic secondary metabolites responsible for foliar symptoms. Our aim is to determine which cultivars that are currently available on the market are more or less tolerant to the secondary metabolites produced by the fungus, allowing farmers to decide

cultivars could be selected for areas where TRD is more established. Our aim is to understand the fundamentals of the pathogen biology, while producing data that can be used to enhance management practices.

Last year, I was awarded the Ray & Dorothy Young Endowed Assistantship in Integrated Pest Management. This assistantship has provided me with funds to partially cover the expenses needed to attend professional conferences where I was able to present my research and interact with fellow scientists, including the Mycological Society of America (MSA) national meeting in Minneapolis, MN in July of 2019 and the American Phytopathological Society of America Southern Division (SD-APS) regional meeting in Charleston, SC in February of 2020. The funds from the award have been also used to aid in our intensive sampling of diseased soybean plants across the region (Alabama, Arkansas, Louisiana, Mississippi, and Tennessee), helping to cover travel expenses for a few weeks spent on the road.

We want to thank Mr. Ray and Mrs. Dorothy Young for providing us with the funds and I personally hope to one day contribute back to the LSU Foundation to help young scientists develop their research and professional careers in agriculture. We truly appreciate your efforts and we hope that the findings of our research will be of great value for farmers in decades to come. The multidisciplinary aspects of this research project, including my interactions with farmers during my search for diseased soybeans, have enhanced my professional development and will remain relevant in my career path.



See page 6...*Figure 1.* Collecting soybean plants that exhibited foliar and root symptoms associated with taproot decline (TRD) in southern United States. *A.* Foliar symptoms of TRD. *B.* Root necrosis caused by TRD (blue arrow). *C.* Reproductive fungal structures (stromata, a.k.a. "dead man's fingers") found on soybean debris from previous seasons. *D.* Ray & Dorothy Young assistantship 2019 awardee, Teddy Garcia-Aroca holding a TRD-diseased and a healthy soybean plant.



Figure 2. LSU College of Agriculture 2019 Award Ceremony. From left to right: Dr. Rogers Leonard (Associate Vice President, College of Agriculture), Teddy Garcia-Aroca, and Dr. Grady Coburn (LACA representative).

#### Change of Venue for 2021 Annual Meeting February 9-11, 2021

Plans are being made to hold our 2021 annual meeting at the **Randolph Riverfront Center** in Alexandria with host hotels, **Holiday Inn Downtown** and the historic **Bentley Hotel**. The two hotels are joined to the Riverfront Center either directly or by covered skywalk. There is plenty of garage parking, as well as outside parking. Some of the highlights of dining downtown include **Diamond Grill, Embers, Fennigans Wake**, the **Mirror Room** under the Bentley, and many more within walking distance. It is our hope that we can alternate between **Paragon Casino Resort** and this venue every two to three years.

In 2021, plans are to again hold a preconference workshop, as well as a silent auction to fund scholarships. Our program planning meeting will be held in late October, 2020 and any input as to subject matter and/or potential speakers is welcome. Ideas and suggestions should be emailed to jeremypbabin@hotmail.com and denise@laca1.org. *Denise Wright, LACA Executive Director* 



### <u>Coronavirus and Its Impact on</u> <u>Agriculture and Trade</u>

The coronavirus (COVID-19) is a zoonotic disease which is an animal disease that has affected the human population. We do not know a lot about COVID-19 which is why they call it a novel virus. It appears to be a new mutation and we, the human population, are clearly not immune to it.

So how is this impacting trade? We are definitely experiencing an impact on the economy and society. We've seen disruption in supply chain and commerce in China.

According to the LSU AgCenter, the coronavirus has affected all commodities. The coronavirus has caused some disruption in normal trade and product movement that, along with large beef supplies, is likely causing the downturn. This is typical when there is disruption in the market.

The last three of the seven strains of human coronavirus are several versions of coronaviruses that start in animals and affect humans. In recent years, severe acute respiratory syndrome (SARS) (2002) disease came from civet cats in China. Middle East respiratory syndrome (MERS)(2012) came from camels in Iran. Now we have COVID-19 from China which has jumped two species. We believe it originated from bats then jumped to an anteater and then to humans.

While we urge people to take the necessary precautions to stay healthy, the LSU Veterinary School and Tulane National Primate Research facility are working on vaccines for the virus. Hopefully within six months, we will have an animal vaccine. Remember, in the animal world, we also worry about diseases that can impact the food supply such as African swine fever and foot and mouth disease.

Meanwhile, this disease is spreading. It is spreading because we are not immune to it and people and products continue to move.

We hope as the weather warms up, the virus will be contained and we will continue to work on a vaccine to protect the human population. Additionally, we are being proactive in dealing with supply chain issues and believe there will be great opportunities to refill the worldwide stockpiles of commodities.

We have weathered many storms along the way. We certainly hope everyone remains vigilant in doing what is needed to keep themselves and their families safe and healthy during this uncertain time.

Mike Strain, DVM, Commissioner Louisiana Department of Agriculture & Forestry



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A huge shout out to our sponsoring companies for their generosity in helping to make our annual meeting a success!!!

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As of our last annual LACA Business Meeting held February 13, 2020, the decision was made to no longer print the membership directory each year. The membership directory on our website (www.laca1.org) is currently being updated to reflect current contact information for all categories of membership. A printable version will also be made available. An email alert will go out to all once these updates are completed.

#### 2020 LACA Executive Board

Blaine Viator, President 985-637-5520 (m) blaineviator@gmail.com

Jeremy Babin, President-Elect 985-665-0687 (m) jeremypbabin@hotmail.com

Richard Costello, Past President 318-376-1629 (m) rcostello742@gmail.com

> Hank Jones, Secretary 318-372-9422 (m) HankCJAg@gmail.com

Harold Lambert, Treasurer 225-718-3401 (m) hlambert3401@gmail.com

> Lucas Pitre, Director 337-501-0230 (m) jpitre2@yahoo.com

Justin Turner 318-282-8808 (m) turneragservices@gmail.com

Denise Wright, Executive Director 337-945-3694 (m) denise@laca1.org

Boyd Padgett, Academia Board Liaison 318-473-6520 (o) 318-614-4354 (m) bpadgett@agctr.lsu.edu

Chad Nelson, Industry Board Liaison 318-282-2036 (m) chad.nelson@bayer.com

For information on membership in NAICC go to www.naicc.org or contact Allison Jones at JonesNAICC@aol.com or Denise Wright at wrightpme@aol.com or denise@laca1.org



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**Patrick Dean Jolly** 

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