



On the Bayou

DECEMBER 2020



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Message from the Director

Dr. Deepak Bhatnagar

As 2020 finally comes to a close, we have high hopes for a banner 2021. After Hurricane Katrina in 2005, we could not imagine another year that we remember for a lifetime. But 2020 has taught us many lessons in being patient, looking after ourselves, and being grateful for our families and all our opportunities.

During this time, work at the Center has been ongoing. The Administrative staff has been exceptionally busy with purchasing, hiring and retirements, personnel and performance related items, library and information services, safety and maintenance of the facility, construction and repairs, etc. Pontchartrain Partners' work during these months is also gratefully acknowledged. We continue to be thankful for all those who performed the essential work to keep the lab going. And more recently, we have been allowed to safely return to the Center to conduct lab work. I am glad so many of you have signed up for this opportunity. We need to make sure that all our staff, both scientists and support staff, can conduct research in a safe manner. Our safety and health are paramount and following the safety protocols put in place by our diligent Safety Officer is critical.

We have continued our other traditional activities as well. The Awards Committee announced our 2019 SRRC winners, the CFC team continues its work, and EBC had a significant Toy Drive. The Safety Committee is gearing up for the virtual Area inspection. We are making progress, though slow at times.

On another note, we will be losing our friendly face in the Library. Suhad has decided to retire at the end of December. All these years she has been such a great help to the scientific staff, as well as to others through her diligence on various committees. She will be missed not just for the passion with which she did her work, but also for her cooperative spirit. We wish her all the best in her retirement.

As we look forward to 2021, do enjoy the holiday season safely. I wish everyone a very happy and healthy New Year.

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Events and Observances

SRRC Supports CFC with Lunch and Learn Events

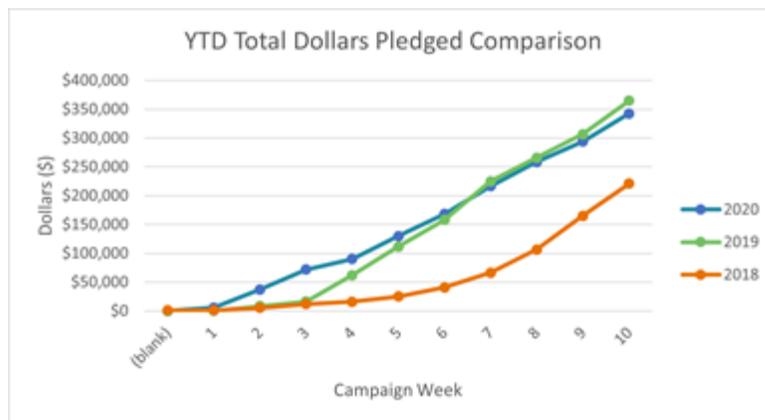
Submitted by: Matt Lebar and Scott Pelitire



Greetings from the SRRC CFC committee!

Our FY2020 CFC contributions are slightly behind FY2019's levels, but well ahead of FY2018 year to date (see graph). Let's try to pull ahead this December before the holiday break! You can track the Mississippi Delta/Gulf Coast region's progress yourself at:

<https://msdeltacfc.givecfc.org/2020-campaign-progress>



Stay tuned for more Lunch and Learn events. We will forward the registration links as they become available. At the most recent Lunch and Learn we heard from charitable organizations working to support animal welfare in the MS Delta/Gulf Coast region. Everyone was very passionate about their charity and showed genuine concern for the welfare of our four-legged, furry friends. There was even a charity that runs an elephant sanctuary in Tennessee! The event was well received, and we hope to see you at the next one. If you attend one or more of these events, you are eligible for a \$20 gift card!



We have a lot to be thankful for this holiday season. We are safe and secure. Please remember many have been less fortunate this year... but we can help! Making donations and pledging volunteer hours through <https://msdeltacfc.givecfc.org> can make a big difference locally and nationally. Our office code is EHY3MT.

We would also like to thank CASA again for their informative talk at our Halloween CFC kickoff. More information about our CFC kickoff guest charity can be found at <https://casaneworleans.org/>



Winners of SRRC 2019 Awards

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Submitted by: Gregory Thyssen, Awards Committee Chair

The Southern Regional Research Center Awards Committee and Management recognize the outstanding effort put forth by SRRC employees in 2019.

This year's committee meetings were a bit different from the past. We had to bring our own donuts to the Zoom meetings! Nevertheless, we reviewed nominations of many highly accomplished SRRC employees, and selected these exceptional winners.

Congratulations to all the winners and nominees.

Our Employees of the Year, 2019 Award Recipients are:

Outstanding Scientist

Kannah Rajasekaran, Research Biologist
Food and Feed Safety Research Unit

Outstanding Support Scientist

Brian Mack, Biological Science Technician
Food and Feed Safety Research Unit

Outstanding Early Career Scientist

Rajtilak Majumdar, Research Molecular Biologist (PostDoc)
Food and Feed Safety Research Unit

Technology Transfer Adoption

Soheila Maleki, Hsiaopo Cheng, and Barry Hurlburt
Food Processing and Sensory Quality Research Unit
“Development of Plaforzia, Immunotherapy for Treatment of Peanut Allergy”

Outstanding Technician/Aide

Chris Florane, Molecular Biologist (Technician)
Cotton Fiber Bioscience Research Unit

Outstanding Administrative Support Employee

Melissa Santos, Purchasing Agent
Administrative Office/Director's Office

Outstanding Office Support Employee

Jamie Howell, Program Support Assistant
Commodity Utilization Research Unit

Outstanding Contributor to Cultural Diversity

Stephanie Gross, Biological Science Technician
Food and Feed Safety Research Unit

Most Cooperative Person or Group

Shannon Beltz, Safety and Occupational Health Specialist
Administrative Office/Director's Office

Outstanding Wage Grade Employee

Adrian Mejia, Textile Equipment Operator
Cotton Structure and Quality Research Unit

Best Paper

Gregory Thyssen, Christopher Delhom, Ping Li, Brian Condon, and David Fang

“Whole genome sequencing of a MAGIC population identified genomic loci and candidate genes for major fiber quality traits in upland cotton (*Gossypium hirsutum* L.)”
Theoretical and Applied Genetics (2019) 132:989-999.

We extend our sincere thanks to the Awards Committee, for their hard work and dedication:

Gregory Thyssen, Chair
Matthew Lebar, Vice-Chair
Casey Grimm, Acting Chair for Best Paper
Rebecca Hron
Suzanne Martin
Michael Santiago-Cintron
Kandan Sethumadhavan
P.K. Chang, Proxy
Marina Naoumkina, Proxy
Matthew Hillyer, Proxy
Chanel Fortier, Proxy

EBC Toy Drive

Submitted by: Terri Von Hoven

The EBC sponsored toy drive to benefit homeless children was a huge success. The Ozanam Inn typically hosts a Christmas party where Santa distributes gifts. This year, instead of a party, Santa will be visiting various shelters in the area to give out toys.

SRRC was particularly generous this year providing a variety of toys for all age groups. These included art kits, blocks, card games, dart board, dolls, excavation kits, mini foosball table, gear kits, Lego kits, mazes, music kits, old school toys, puzzles, Matchbox cars, science kits, slime kits, slushie maker, soccer ball, stuffed animals, trucks and more! Everyone at Ozanam Inn was so very grateful; I received so many smiles and thank you comments. They were very appreciative and happy to be receiving so many wonderful gifts to make Christmas special.



Thanks to all of you who contributed so generously and to Ms. Veronica and Shantell for organizing the donations at the lab.

SRRC Facility Improvements in 2020

Submitted by: **Matt King**

While the staff is in maximum telework status, several major construction and repair projects have been underway at our facility. Several of these, at a total cost of approximately \$2.3 million, are listed below.

The most significant costs are the new Greenhouse (\$946K), the new boiler (\$330K), and the motor control centers (\$579K). Between HQ and Area, we have received nearly \$1.6 million for these projects. We are grateful for their support.

- Completion of New Greenhouse/Headhouse project; addition of bays 3 and 4.
- Replacement of all windows in the Textile Building with new energy efficient windows.
- Upgraded and replaced oldest Industrial Wing Fume Hoods – 2 fume hoods replaced.
- Replaced first 3 of 7 Motor Control Centers (MCC) in the Chemical Wing Attic.
- Replaced oldest Steam Boiler in the Service Building.
- Upgraded fire alarm panels in Chemical, Administrative, and Industrial wings of the Main Building.
- Installed upgraded new security cameras throughout the facility.
- Replaced some older Electrical Breaker Panels in Industrial Wing and Front Desk areas.
- Installed electronic fuel gauge for the new emergency generator diesel storage tank allowing review by computer.
- Replaced rusting door frames and doors in existing greenhouse headhouse.
- Installed new Ninja flooring in Chemical Wing storeroom, Industrial Wing receiving area by freight elevator, and ground floor ramp from administration wing to courtyard.
- Replaced flooring in the swing space lab - Room 3214.
- Installed new flooring, ceilings, painting, and light fixtures, in the 1st & 3rd floor old labs and offices in the Industrial Wing.



Submitted by: Shannon Beltz

Other Important Research Proposals

Just a reminder ... the last date to submit an Other Important Research proposal OR extension is **December 16, 2020**. Requests will recommence on **January 11, 2021**.

NO proposals or extensions can be submitted or approved to SEA during this time. This is an SEA deadline and cannot be changed.

You may do previously approved Other Important Research during this time, but NO proposals or extensions for future work will be submitted or approved to the SEA. I will be available for reviewing and scheduling proposals. Thanks for understanding!

Safety

All normal regulations regarding hazardous waste disposal and collection are still in place, with no exceptions due to COVID-19. If you have any haz waste in your lab, from recent work OR from before COVID-19, please let me know. I will need to start tallying how much we have and what type of waste it is.



Shannon, our Safety Officer, taking a break with her family during Thanksgiving.

Activities

Submitted by: **Terri von Hoven**

Preservation Resource Center Holiday Homes on Tour

Virtually tour architecturally significant homes decorated for the holidays! \$40

Uptown: MARY MATALIN & JAMES CARVILLE, Raised Colonial Revival Residence;

BRYAN BATT & TOM CIANFICHI, Raised West Indies Cottage;

PENNY & TODD FRANCIS, Colonial Revival Residence

French Quarter: DEBRA SHRIVER, Greek Revival Townhouse

Faubourg St. John: ALEXA PULITZER & SETH LEVINE, Eastlake Center Hall

Bywater: PRES KABACOFF & SALLIE ANN GLASSMAN – Environmentally Sensitive Villa (*bonus!*)

For more information, go to: <https://prcno.org/event/holiday-home-tour-2020/>

Celebration in the Oaks will be a drive through event this year. Enjoy City Park with its famous oaks swathed in over a million twinkling lights making it one of the most spectacular holiday lights festival in the country. Event runs from November 26 to January 3, closed Dec 24 and 31. See website for tickets and prices. <http://neworleanscitypark.com/celebration-in-the-oaks>

French Quarter Festivals, Inc. is celebrating the holidays with free virtual concerts. Donations welcome at their website: fqfi.org/donate/

Virtual Holiday Concert Series Schedule:

- December 20, 6pm-7pm – **Rachel Van Voorhees** (*filmed at St. Louis Cathedral*)
- December 21, 6pm-7pm – **Tim Laughlin** (*filmed at St. Augustine Church*)
- December 22, 6pm-7pm – **Amanda Shaw** (*filmed at St. Louis Cathedral*)
- December 23, 6pm-7pm – **Don Vappie** (*filmed at St. Augustine Church*)
- December 24, 6pm-7pm – **Irma Thomas** (*filmed at St. Louis Cathedral*)
- December 25, 10am-3pm – ***All concerts**

Retirement of Suhad Wojkowski

I will be retiring on December 31, 2020 after 31 years of service as the Center's Librarian. I have also contributed to various projects through the years, most recently including: our Eprints database, CFC, EAC, and Editor of *On the Bayou*.

It has been a rewarding time and I feel fortunate to have worked at the Center as I considered the people my extended family. I hope that I made a positive contribution in helping people and supporting SRRC projects. Retiring is a little bittersweet as I will miss the people, and our special coffees!

I will enjoy swimming, gardening, reading, sewing, and other little projects in my retirement.

I wish the very best for SRRC.



A Step Back in Time at SRRC

Submitted by: Christine Sickler

Arnold Beckman invented the first commercially successful pH meter in 1934 at the request of a chemist with Sunkist who wanted an accurate way to measure acidity of lemon juice.

Beckman suggested a design for a vacuum-tube amplifier and built a working instrument. The resulting "acidimeter" with its glass electrode was renamed the pH meter and produced by Beckman's company, National Technical Laboratories (now known as Beckman Coulter).



Beckman model GS, circa 1960s,
on display in the Vintage Lab.



Arnold Beckman, 1960-1962.

Recent SRRC Publications

Submitted by: Suhad Wojkowski

Full text pdfs of SRRC publications are available in the Eprints database via “Library” link on the SRRC Intranet page: <http://nola.srrc.usda.gov:8000/srrcmenf.htm>

Click on the article’s title below to launch the pdf from Eprints.

Abdelraheem, Abdelraheem and Fang, David D. and Dever, J. and Zhang, Jinfa (2020) [*QTL Analysis of Agronomic, Fiber Quality, and Abiotic Stress Tolerance Traits in a Recombinant Inbred Population of Pima Cotton*](#). Crop Science, 60. pp. 1823-1843.

Chang, SeChin and Condon, Brian and Nam, Sunghyun (2020) [*Development of Flame-Resistant Cotton Fabrics with Casein Using Pad-dry-cure and Supercritical Fluids Methods*](#). International Journal of Materials Science and Applications, 9 (4). pp. 53-61.

Chang, SeChin and Condon, Brian and Smith, Jade and Nam, Sunghyun (2020) [*Flame Resistant Cotton Fabric Containing Casein and Inorganic Materials Using an Environmentally-Friendly Microwave Assisted Technique*](#). Fibers and Polymers, 21 (10). pp. 2246-2252.

Jordan, Jacobs H. and Easson, Michael and Condon, Brian (2020) [*Cellulose Hydrolysis Using Ionic Liquids and Inorganic Acids Under Dilute Conditions: Morphological Comparison of Nanocellulose*](#). RSC Advances, 10. pp. 39413-39424.

Tao, Feifei and Yao, Haibo and Hruska, Zuzana and Kincaid, R. and Rajasekaran, Kanniah and Bhatnagar, Deepak (2020) [*A Novel Hyperspectral-Based Approach for Identification of Maize Kernels Infected With Diverse Aspergillus flavus Fungi*](#). Biosystems Engineering, 200. pp. 415-430.

Uchimiya, Minori (2020) [*Proton-Coupled Electron Transfers of Defense Phytochemicals in Sorghum \(Sorghum bicolor \(L.\) Moench\)*](#). Journal of Agricultural and Food Chemistry, 68. pp. 12978-12983.

Uchimiya, Minori and Bannon, Desmond I. and Nakanishi, Hiromi and McBride, Murray B. and Williams, Marc A. and Yoshihara, Toshihiro (2020) [*Chemical Speciation, Plant Uptake, and Toxicity of Heavy Metals in Agricultural Soils*](#). Journal of Agricultural and Food Chemistry, 68. pp. 12856-12869.

Wanjura, John D. and Armijo, Carlos B. and Delhom, Christopher D. and Boman, Randal K. and Faulkner, William B. and Holt, Greg and Pelletier, Mathew (2019) [*Effects of Harvesting and Ginning Practices on Southern High Plains Cotton: Fiber Quality*](#). Textile Research Journal, 89 (23-24). pp. 4938-4958.

Wright, Maureen S. and Klasson, K. Thomas and Kimura, Keitarou (2020) [*Production of Acetoin from Sweet Sorghum Syrup and Beet Juice via Fermentation*](#). Sugar Tech, 22 (2). pp. 354-359.

Zhang, Jinfa and Abdelraheem, Abdelraheem and Thyssen, Gregory and Fang, David D. and Jenkins, Johnie N. and McCarty, Jack C. and Wedegaertner, Tom C. (2020) [*Evaluation and Genome-Wide Association Study of Verticillium Wilt Resistance in a MAGIC Population Derived From Intermating of Eleven Upland Cotton \(Gossypium hirsutum\) Parents*](#). Euphytica, 216 (9). pp. 1-13.