



LSU AgCenter

H. Rouse Caffey Rice Research Station

NEWSLETTER

Volume 21 Issue 3 | August 1, 2024

Upcoming Events

- **Arkansas Rice Field Day** - Stuttgart, AR, August 1
- **Interdisciplinary Approaches to Tackle Rice Diseases Workshop** – International Rice Research Institute, Philippines.
- **International Rice False Smut Consortium Workshop** - International Rice Research Institute, Philippines.
- **Southern Weed Science Society Annual Weed Contest** – Blacksburg, VA, August 8
- **Southern Extension Weed Science Working Group Meeting** - Sante Fe, NM, August 12 – 15
- **Southwest Region Agricultural Career Day**, H. Rouse Caffey Rice Research Station, December 3

Upcoming Station Visitors

- **Environmental Protection Agency (EPA)** – August 5
- **INTA Argentina** – August 6
- **LSU AgCenter Management Development Institute (MDI)** – August 22
- **Dr. Paul Esker**, Pathologist, Penn State University – September 26 - 27

New Station Personnel

- **Rattanaoporn Rattanapakdee** (Visiting Scholar – Agronomy)
- **Gustavoi Escobar** (Graduate Student – Pathology)

2024 Rice Crop Update

Harvest of the 2024 rice crop is currently underway in South Louisiana. Based on planting intentions from early in 2024, the rice crop in Louisiana was initially estimated to be as large as 500,000 acres. However, due to some adverse weather conditions delaying planting beyond optimal dates eliminating some acres, the USDA now estimates total planted acres at 475,000. Despite 2024 acres being below planting intentions, they still represent a 15,000 acre increase from 2023. Much of this increase is attributable to increased rice plantings in North Louisiana as lower soybean and corn prices enticed producers to shift acreage to rice production.

In general, it has been a good year for rice production. Earlier during the growing season, predictions were that the average per acre yield for the state would be the highest ever. While some excessive rain during the early stages of harvest has caused concerns, reports of early rice yields have generally been very good and help to provide some optimism that those early predictions of record yields may still be approachable. In addition, initial reports have also indicated that the quality of the crop has been good, a welcomed note given the quality issues experienced in 2023.

The cropping season started out with milder than normal temperatures in late February and early March when much of the rice in South Louisiana is planted. This early-planted rice had excellent conditions for germination and stand establishment. Unfortunately, unseasonably low temperatures in April (in the mid to upper 30s) set this early rice back, and it took the crop a long time to recover and start growing again. However, these cool conditions did not appear to have had any long-term effect on the crop. Rice producers in North Louisiana were hampered by wet conditions and then cold conditions that delayed planting. Most of the rice in North Louisiana was planted late and several thousand acres failed to be planted.

Climatic conditions during the rice growing season were, for the most part, very good after the early April cold spell. There was adequate but not excessive rainfall, and the rainfall events came in a timely manner in most areas. There were many days of limited cloud cover, which maximizes radiant energy. This is good for rice growth and development. Weather conditions were favorable in the first part of the harvest period, but excessive rainfall in mid-July made getting

the crop out of the field a trying experience for many rice producers. Fields that were ready for harvest remained in the field as quality continued to go down.

While disease pressure was low most of the season, many producers reported disease increased after these continued rains. Many people might think that rice likes rain because it is grown here as an irrigated crop. However, rice is typically negatively impacted by rainfall which (because of cloud cover) decreases radiant energy to the plant. Also, very wet conditions facilitate disease development, and rain and wind can actually cause sterility in rice florets.

After two weeks of rain, we hope rice cutting will resume the first part of August. It will be a while before we can see how the heavy rains during July will affect yield and quality. Rice milling quality is almost as important as yield because the price a producer will receive for his crop is highly dependent on this factor. This most important factor here is what is referred to as head rice or whole grain milling yields. In simple terms, this is the percentage of the harvest that remains as whole (unbroken) grains after the rice has been milled. If a rice lot mills 65 percent, this means that if you start out with 100 pounds of dried rough rice, after the hulls and bran are removed in the milling process you end up with 65 pounds of milled whole grains.

There are many factors that influence the milling yield. In addition to varietal differences in the characteristics, one important factor is the grain moisture percentage at harvest. We normally will begin to harvest rice at 20 percent grain moisture. As the moisture percentage falls in the field prior to harvest, this will normally have a negative impact on whole grain milling yields. Continued wetting and drying in the field can also have a negative impact. Therefore, a field of rice harvested at 20 percent grain moisture may produce a 65 percent milling yield. If harvest is delayed, however, and that field is not harvested until the grain moisture is 14 percent, the milling may be 55 percent or lower. Most of the 2023 rice crop produced milling yields much lower than expected. In most instances, this could be explained by low harvest moisture. In other cases, this was not a factor, and the cause is difficult to figure out.

Yield and quality need to be good because of the expensive cost to produce a rice crop. Rice production uses a large amount of fossil fuels. Wells and pumps are needed to keep fields flooded, and



AgCenter faculty inspect the field of producer, Mr. Connor Popeck. Pictured from left to right are Dr. Ron Levy (State Rice Production Specialist), Dr. Connor Webster (Weed Scientist), Mr. Connor Popeck (Rice Producer) and Mr. Jimmy Meaux (ANR Agent).



Picture of milled rice with both whole and broken kernels.

everyone is aware of the price of diesel. Rice production also requires fertilizer, and the price of fertilizer (especially nitrogen) is highly dependent on the price of natural gas. With no indications that energy prices will decrease significantly in the short term, this will likely keep production costs at these elevated levels. This will put more emphasis on strong production levels and strong rice prices to ensure profitability for rice farmers. And certainly, there will need to be some expectation of either lower production costs or stronger rice prices to increase or even maintain rice acreages at current levels in 2025.

Article by Dr. Ronnie Levy (State Rice Production Specialist)

Ratoon or Second Crop Rice Production

Ratoon or second crop production in rice is a common practice in Southwest Louisiana due to suitable weather conditions in this area. As such, the ratoon rice crop has become an integral part of commercial rice production. The ratoon crop will generally yield approximately one-third of that obtained in the first crop. Although ratoon yields are much less than that of the first crop, there is an economical advantage for growing the ratoon crop. One such economical advantage is that input costs for producing the ratoon crop are kept at a minimum. Generally, the costs associated with growing a ratoon crop are nitrogen fertilizer, irrigation, harvesting and grain drying.

Southwest Louisiana has a long enough growing season that normally allows for a successful ratoon crop from a rice field on which the first crop is harvested by mid-August, which provides the greatest opportunity to have a sufficient growing season for ratoon production. Because the ratoon crop grows from buds at the base and lower nodes of rice stems, it is important to maximize the number of these buds. LSU AgCenter research has shown that when stand limits first crop yields, ratoon crop yields will also be reduced. Usually, this occurs when main crop stands are less than 8 to 10 plants per square foot with non-hybrid varieties.

Cultural practices used in the main crop can have a major impact on ratoon rice production. Every management decision in the main crop will in some way impact the ratoon crop. Planting date, fertilization, and weed, disease and insect management in the main crop will all influence ratoon rice development and yield. Excessive nitrogen fertilizer applied to the main crop can delay regrowth of ratoon rice; therefore, overfertilization should be avoided even with a lodging-resistant variety. Weed pressure in the first crop can reduce the ability of plants to tiller. In addition, disease pressure in the main crop may cause death of tillers and prevent regrowth from these plants, particularly diseases that affect stem health such as sheath blight, can reduce the number of healthy stems and buds that serve as the foundation for ratoon growth. Therefore, a foliar fungicide applied to the main crop can be beneficial to the ratoon crop.



Rice stubble that has been rolled in preparation for the ratoon rice crop

Stubble management practices, such as post-harvest mowing of the stubble to approximately 8 inches, or post-harvest rolling of the stubble, have shown to increase ratoon yields. However, the ratoon crop is slower to develop from short stubble and later maturing by several days compared to a conventional stubble height of about 16-18 inches.

One of the important factors about stubble height is that enough stubble needs to remain to serve as a foundation for ratoon growth. In addition to containing the buds that serve as the “seed” for ratoon growth, there is also carbohydrate stored in the stubble. The carbohydrate serves as the energy source for the buds to grow. The carbohydrate in the stubble serves the same purpose as starch in the endosperm of seed in acting as an energy source during germination.

Our previous ratoon N studies have shown that 90 pounds of N applied on dry soil just after the main crop is harvested and immediately followed by a very shallow flood is the best management strategy in almost every study across all varieties and hybrids when the first crop is harvested before August 15. If the main crop is harvested after August 15, then the N rate needed to be reduced to shorten the time to maturity of the ratoon crop. Many growers have found success by harvesting, implementing their preferred stubble management practice, flushing and then applying the nitrogen fertilizer on dry ground followed by establishing a shallow flood. Current LSU AgCenter soil test-based phosphorus and potassium recommendations do not consider the ratoon rice crop. Recent research has shown that rice grown on soils that test very low, low or medium in soil test phosphorus or potassium will need an additional 30 pounds of phosphorus (as P_2O_5) or potassium (as K_2O) to maximize ratoon yields. The additional phosphorus and potassium fertilizer can be applied with phosphorus and potassium in the first crop or can be applied after first-crop harvest.



Closeup of the bud on the stem of a rice plant. This is the location from which the ratoon rice crop will initiate.

Article by Dr. Manoch Kongchum (Rice Agronomist)

Rice Research Station Hosts Multiple Field Days in June

One of the avenues used to disseminate research results and production information to our stakeholders is through field days. Field days have proven an effective way to not only highlight the research being conducted but to also highlight our researchers. In addition, field days offer an excellent opportunity to bring together people from all phases of the industry. In June 2024, the H. Rouse Caffey Rice Research Station hosted three field days, two which have been traditionally conducted and a new field day reaching a new stakeholder group.

The field days started with the South Farm Rice Field Day held on June 12th. This field day has a long history and is a collaborative effort of personnel with the Rice Station and the Acadia Parish Extension Agent, Mr. Jeremy Hebert. While the South Farm Rice Field Day provides participants with updates on a variety of rice issues, the primary focus of the field day is to highlight the research being conducted by Dr. Connor Webster (Rice Weed Scientist) and the Weed Science project. During the field day in June, several tour stops highlighted Dr. Webster and his graduate students where they discussed research trials being conducted and the implications of their research findings. Another tour stop focused on varieties where Dr. Brijesh Angira (Rice Breeder) discussed newly released varieties and provided updates of additional varieties that will likely become available in the next 2 to 3 years. The field day was well attended with more than 100 producers and rice industry personnel attending.

The next field day was the Rice Station's largest event of the year. The H. Rouse Caffey Rice Research Station Annual Field Day was held on June 25th and brought more than 300 visitors to the station. The field day in 2024 was the 115th annual field day and has grown into not only one of the largest field days within the LSU AgCenter system but also one of the largest rice field days in the country.

The field day had three major components. The first component were the field tours in which participants were able to travel to fields to see the research plots and get an update from the research faculty conducting that research. Field tours included an update on rice varieties provided by Dr. Adam Famoso (Resident Coordinator and Plant Breeder) and Dr. Brijesh Angira (Plant Breeder), an update on entomology research provided by Dr. Blake Wilson (Rice Entomologist) and Mr. Tyler Musgrove (Graduate Research Assistant), an update on rice disease research by Dr. Felipe Dalla Lana (Rice Pathologist) and Dr. Camila Nicolli (Rice Pathologist – University of Arkansas), an update on weed issues in 2024 and weed science research by Dr. Connor Webster (Rice Weed Scientist), an update on agronomy research, fertilizer timing, and climate smart production by Dr. Manoch Kongchum (Agronomist), Dr. Ron Levy (Rice Production Specialist), and Dr. Steve Linscombe (USA Rice Federation), and a spray drone demonstration by Mr. Brady Williams (Research Associate – Rice Breeding).

The second component was the scientific poster session and trade show. Faculty from throughout the LSU AgCenter provided results from research conducted related to rice while rice industry provided information on goods and services available. The final component was the indoor program where participants were provided updates from the Louisiana Rice Research Board, the Louisiana Department of Agriculture, the Louisiana Farm Bureau Federation, and the LSU AgCenter. Despite having to deal with some hot and humid weather conditions, the field day was a success and offered a great opportunity for producers and industry personnel to come together and learn more about the great things happening at the Rice Station.

The final field day hosted by the Rice Research Station was a new field day. The Southwest Region Home Garden Field Day was held on June 26th and was the idea of and coordinated by Dr. Kathryn



Dr. Connor Webster (Weed Scientist) discusses his weed science research at the South Farm Rice Field Day.



Dr. Felipe Dalla Lana (Rice Pathologist) and Dr. Camila Nicolli (Pathologist – University of Arkansas) discuss collaborative rice disease research at the H. Rouse Caffey Rice Research Station Field Day.



Participants review rice research displayed during the scientific poster session of the H. Rouse Caffey Rice Research Station Field Day.

Fontenot (Southwest Region Director). The event was organized and hosted by agricultural and horticultural agents in the Southwest Region and was designed to showcase LSU AgCenter recommended gardening practices to hobby gardeners.

Participants were able to view a variety of vegetable and fruit crops and three types of cut flowers that had been cultivated and maintained by Southwest Region Agents. In addition to seeing the different crops, several stations were maintained by AgCenter personnel where participants could discuss various aspects of best management practices related to irrigation, weed control, trellising, and manure usage, among others. An “Ask the Expert” booth was set up to allow participants to ask questions about a variety of different home gardening related topics. Agents involved in the planning and management of the demonstration garden and for conducting the field day were Jeremy Hebert (Acadia), Paul Bongarzone (Acadia), Todd Fontenot (Acadia), Stuart Gauthier (St. Martin), Allen Hogan (Jeff Davis), and Maddox Miller (Lafayette).



Ms. Mandy Armentor (NCH Regional Coordinator) and Ms. Victoria Landry (NCH Agent - Lafayette) prepare healthy recipes with produce from the demonstration garden.



Participants of the Southwest Region Home Garden Field Day learn about best management practices.

The field day offered something for everyone as in addition to information on gardening best management practices it also offered information on healthy eating and diets as well as providing fun activities for children. Nutrition and Community Health Agents, Ms. Mandy Armentor (Vermilion) and Ms. Victoria Landry (Lafayette), provided information on healthy eating habits and demonstrated different healthy recipes using produce from the garden. Ms. Lanette Hebert (4-H Regional Coordinator) and Ms. Dani Percie (4-H Agent – Acadia), along with members from the Acadia Parish Junior Leaders Group, offered several fun activities for all children in attendance.

By all accounts, the field day was a success with more than 70 participants attending. This was especially encouraging since this was the first field day of its kind at the Rice Research Station and in the Southwest Region. Given its success, planning is underway to make this an annual event.

Article by Dr. Kurt Guidry (Assistant Resident Coordinator and Economist)

Project Highlight – Quantitative Genetics Project

The focus of the Quantitative Genetics Project at the H. Rouse Caffey Rice Research Station is to determine how and when to incorporate modern technologies such as molecular markers, drone images, and large weather and soil datasets in the station’s rice breeding program. The project looks to utilize these new tools and data in a manner that will gradually allow the breeding program transition from traditional breeding and selection processes to a more effective and efficient data-driven process.

Using drone images, the project can evaluate a much larger number of plants each year than traditional methods and at a lower cost. Molecular markers (DNA fingerprints) allow the project to identify promising varieties earlier in the selection process based on their genetic makeup. Weather and soil data allow the project to tie environmental conditions and growing locations to the performance of the rice variety. All of these efforts offer significant potential for improving variety development processes by reducing the development time and costs, by optimizing resource allocation, and by increasing the genetic improvements made in rice varieties.

Dr. Roberto Fritsche-Neto heads the Quantitative Genetics Project and has identified research areas to address relevant and critical issues on variety development. Other members of the Quantitative Genetics project are Jose Crossa (Visiting Scientist), Karina Reis (Postdoctoral Researcher), Bruno Borges (Graduate Student), Kajal Gupta (Graduate Student), Kashish Grover (Graduate Student), Melina Prado (Visiting Scholar), Allison Silva (Visiting Scholar) and Jardel Souza (Visiting Scholar). Crossa, Kajal, and Kashish work collaboratively to improve genomic selection models. Allison, Karina, Bruno, and Jardel are more dedicated to implementing high-throughput phenotyping using drones and other sensors. Finally, Melina is working on incorporating environmental data in prediction models.



Members of the Quantitative Genetics Project from left to right are Jardel Souza, Melina Prado, Allison Silva, Kajal Gupta, Jose Crossa, Karina Reis, Bruno Borges, Roberto Fritsche-Neto, and Kashish Grover.

Faculty, Staff, and Student News

The faculty, staff, and students of the H. Rouse Caffey Rice Research Station are actively involved in outreach, professional and industry events. The following is a list of the activities and events people from the Rice Station participated in over the last 6 months:

- Dr. Adam Famoso (Resident Coordinator and Rice Breeder) and Dr. Jomar Punzalan (Postdoctoral Researcher - Breeding) traveled to Bangladesh as part of a USAID grant from April 27 – May 3, 2024. As part of their trip, they were able to tour research facilities and production fields throughout the country.
- Several faculty members participated in the McNeese Rice Field Day on May 29, 2024 and in the Mamou Rice Field Day at Bieber Farms on May 30, 2024.
- Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) developed the exam used as part of the Farm and Agribusiness Management Career Development Event contest held during the Louisiana FFA State Convention on June 3 – 6, 2024.
- Several faculty and staff at the Rice Research Station attended and presented at the International Temperate Rice Conference held in New Orleans on June 5 – 7, 2024. The LSU AgCenter and the H. Rouse Caffey Rice Research Station co-hosted the conference.
- Maranda Hains, MS Student for Dr. Connor Webster (Rice Weed Scientist) placed 1st in the student oral competition held at the International Temperate Rice Conference on June 5 – 7, 2024. The title of her presentation was “Evaluation of Annual Grass Control Using Mixtures of Tetflupyrolimet and Clomazone”.
- Wesley Carr, MS Student for Dr. Connor Webster (Rice Weed Scientist) placed 3rd in the student poster competition held at the International Temperate Rice Conference on June 5 – 7, 2024. The title of his poster was “Imazethapyr Carryover in Louisiana Rice Varieties”.
- Mr. Todd Fontenot (Crawfish Production Specialist) provided a crawfish production update to the Louisiana Crawfish Promotion and Research Board’s quarterly meeting held in Lafayette on June 6, 2024.
- Dr. Herry Utomo (Rice Breeder) traveled to Indonesia from June 9 to June 26, 2024. During this trip, Dr. Utomo delivered lectures, participated in a workshop, provided a keynote speech at an international meeting, signed memorandums of understanding with universities, and held meetings with university leaders. All of this was in an effort to foster research collaborations and to introduce them to his research on low GI/high protein rice.
- Dr. Adam Famoso (Resident Coordinator and Rice Breeder) was an invited speaker and panelist in a breeding session at the Latin American Rice Conference in Panama City, Panama on June 10 – 13, 2024.
- Dr. Connor Webster (Rice Weed Scientist) presented information about weed management in Provisia Rice at the Horizon Ag Field Day on June 24, 2024.
- Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) delivered a presentation on valuing sugarcane being displaced for industrial uses at the Louisiana Farm Bureau Federation’s Annual Convention on June 28, 2024.
- Mr. Ben Stoker, PhD Student and Research Associate for Dr. Connor Webster (Rice Weed Scientist) spoke about weed management at the Ricetec Field Day on July 9, 2024.
- Mr. Todd Fontenot (Crawfish Production Specialist) provided information on drought and salinity impacts on crawfish production at the Crowley Lions Club meeting held on July 16, 2024.

- Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) delivered a presentation on the importance of record keeping at Livestock Economics Workshop conducted by the Louisiana Grazing Lands Conservation Initiative on July 19, 2024.
- The members of the Quantitative Genetics Project attended the National Association for Plant Breeding (NAPB) Annual Meeting held in meeting held in St. Louis on July 21 – 25, 2024.
- Dr. Roberto Fritsche Neto (Quantitative Geneticist) gave an invited talk at the National Association for Plant Breeding (NAPB) Annual Meeting entitled, “Rethinking Breeding Programs for the Future: The Case of the LSU Rice”.
- Dr. Felipe Dalla Lana (Rice Pathologist) participated in the 2024 Plant Health Conference, the annual meeting of the American Phytopathological Society, from July 27 – 30, 2024 in Memphis, TN.

Station Events

The Rice Station hosts a variety of events each year. These events range from agricultural education for youth to training for LSU AgCenter personnel. During the last quarter, the following is a list of the events hosted by the Rice Station:

- May 7, 2024 – Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) and Mr. Todd Fontenot (Crawfish Production Specialist) hosted a group from Oklahoma Farm Bureau. Discussions focused on research activities of the rice station, rice production, and crawfish production.
- May 22, 2024 – The station hosted the Southwest Region Parish Chair meeting. During the meeting, Dr. Adam Famoso (Resident Coordinator and Rice Breeder) provided a tour and overview of the Rice Research Station activities.
- May 29 – 30, 2024 – The station hosted the LSU AgCenter’s Nutrition and Community Health new agent training. In addition to hosting, Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) visited with the group about research activities at the station along with the importance of rice production to the state.
- June 3, 2024 – Dr. Brijesh Angira (Rice Breeder) hosted a group of scientists from South America discussing the research being conducted at the station.
- June 2024 – Dr. Felipe Dalla Lana (Rice Pathologist) hosted Dr. Van Schepler Luu, lead pathologist with the International Rice Research Institute (IRRI) and discussed potential collaborations between their research groups.
- June 8, 2024 – The station served as a tour site for participants of the International Temperate Rice Conference (ITRC). Dr. Adam Famoso (Resident Coordinator and Rice Breeder), Dr. Brijesh Angira (Rice Breeder), Dr. Manoch Kongchum (Rice Agronomist), and Dr. Ron Levy (State Rice Production Specialist) all met with the group to discuss their research and to provide an overview of rice production in Louisiana.
- June 11, 2024 – Dr. Connor Webster (Rice Weed Scientist) hosted a field day at the rice station’s South Farm in conjunction with FMC for industry personnel from Louisiana and Texas to show research plots examining the new herbicide, Tetlflupyrolimet.
- June 12, 2024 – The station hosted the South Farm Rice Research Field Day at the station’s South Farm. Over 100 farmers and industry personnel attended and were provided updates on rice breeding efforts and weed science research.

- June 19, 2024 – The station hosted a group of high school teachers and students as part of Camp Crisp, a summer learning experience component of a USDA CAP Grant being organized by faculty with the LSU AgCenter. Several faculty members from the Rice Research Station met with the visitors to discuss their research efforts as well as explaining the history of the station and rice production in Louisiana.
- June 24, 2024 – Dr. Connor Webster (Rice Weed Scientist) hosted a field tour of his weed science research for Gowan Chemical Company and a group from Japan working for Nissan Chemical at the South Farm.
- June 25, 2024 – The station hosted its annual field day. More than 300 people attended.
- June 25, 2024 – The station hosted the summer meetings of the Louisiana Rice Research Board and the Louisiana Rice Promotion Board.
- June 25, 2024 – The station hosted the Southwest Region Home Garden Field Day. More than 70 people attended.
- July 10 – 11, 2024 – The station hosted four Retailer Field Days to discuss the 2024 production season and how varieties were performing.
- July 15, 2024 – The station hosted personnel from Adecoagro, an agricultural company based in Argentina that produces 55,000 hectares (136,000 acres) of rice in addition to other agricultural production and manufacturing. Several members of the rice station’s faculty visited with the group to discuss research efforts and provide an overview of rice production in Louisiana.
- July 22, 2024 – The station hosted participants in the US Department of State’s International Visitor Leadership Program. More than 13 countries were represented by the group. Dr. Kurt Guidry (Assistant Resident Coordinator and Economist) and Dr. Adam Famoso (Resident Coordinator and Rice Breeder) visited with the group to discuss rice research at the station and rice production.
- July 23 -24, 2024 – The station hosted a breeding quality symposium through USA Rice with a group of Latin American rice importers to discuss grain quality and to cook US rice varieties to get feedback on cooking quality. Dr. Adam Famoso (Resident Coordinator and Rice Breeder) and other members of the Breeding project hosted the group.
- July 29, 2024 - The station hosted a group from Brazil (Epagri) of rice industry professionals, seed growers, and researchers to discuss US rice production and research and discuss potential collaborations. Dr. Adam Famoso (Resident Coordinator and Rice Breeder), Dr. Roberto Fritsche Neto (Quantitative Geneticist) and other members of the Breeding and Quantitative Genetics projects visited with the group.

New Employee Highlight

Dr. Karina Lima Reis Borges joined the H. Rouse Caffey Rice Research Station as a Postdoctoral Researcher working with the Quantitative Genetics project in August 2023. Dr. Karina grew up in Minas Gerais, a traditional coffee farming state in Brazil. Growing up on a farm sparked her interest in plants and agriculture. Her interest deepened thanks to her grandfather, a coffee farmer and businessman. He not only cultivated his own coffee but also bought coffee from other farmers, handling the logistics to get it to the port for export.

Given her strong interest in agriculture, Dr. Karina earned a Bachelor’s degree in Biological Sciences from the Federal University of Lavras in Brazil. She continued her education receiving a Master’s degree in Plant Physiology and Biochemistry and a PhD in Genetics and Plant Breeding, both from the “Luiz de Queiroz” College of Agriculture in Brazil. After receiving her PhD, Dr. Karina worked as a postdoctoral researcher at the University of Sao Paulo in

Brazil in corn and raspberry breeding and comes to the Rice Station from a postdoctoral researcher position at the University of Florida where she led the marker assisted selection for the blueberry breeding program.

The primary focus of the Quantitative Genetics project is to develop new information and processes that support the breeding project in its goal of developing new and improved rice varieties. To that end, Dr. Karina is leading an initiative to implement various technologies to improve phenotyping procedures such as using drones and imagery software to more efficiently collect the information needed to make breeding decisions. Her work supporting the breeding program has left Dr. Karina impressed with not only the size of the project but also how well it is organized. Dr. Karina mentions that it is very exciting and rewarding to work with the breeding project to bring new technologies and processes that impact practical breeding decisions and ultimately, help provide new and improved varieties to farmers.



Dr. Karina Lima Reis Borges (Postdoctoral Researcher - Quantitative Genetics) collecting data in one of the rice research plots.

In addition to being able to work on impactful and rewarding research, Dr. Karina mentions the wonderful work environment and the ability to interact with others at the station as being positives of her time here at the station. She has also enjoyed learning not only about rice production but also about the Louisiana culture and mentions that she has enjoyed being in a small town. She and her husband Bruno, who is currently a graduate assistant working in the Quantitative Genetics project, are grateful to be able to raise their daughter Julia in what they describe as such a welcoming community.

When Dr. Karina is not working, she enjoys being among friends and family playing volleyball, watching sporting events on TV, playing cards, and enjoying a barbecue.



For more information, contact us at the H. Rouse Caffey Rice Research Station
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Office Hours: Monday – Friday 8:00 a.m. – 4:30 p.m.

The LSU AgCenter and LSU provides equal opportunities in employment and programs.

For more information, visit our website at:

H. Rouse Caffey Rice Research Station (lsuagcenter.com)

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