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Special Dates of Interest:

Dec. 7-9, 2022 -- USA Rice Outlook Conference Austin, TX

June 28, 2023 – H. Rouse Caffey Rice Research Station Annual Field Day

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New varieties, new faculty highlight 113th LSU AgCenter Rice Field Day



Figure 1. LSU AgCenter rice specialist Ronnie Levy describes the latest studies in the rice agronomy project during the 113th annual Rice Field Day at the H. Rouse Caffey Rice Research Station held at the Crowley facility on June 29. Photo by Olivia McClure/LSU AgCenter.

At the height of the 2022 rice growing season, rice growers and rice industry professionals gathered at the LSU AgCenter’s H. Rouse Caffey Rice Research Station for its 113th annual Rice Field On Wednesday, June 29, the LSU AgCenter hosted more than 300 Louisiana rice producers, rice industry professionals, academic researchers and other

stakeholders as it showcased the latest developments in rice research. Attendees were taken on guided field tours with stops that featured information from the Rice Research Station’s primary projects, including the rice variety development program, the rice entomology project, the rice pathology project, the specialized genetic breeding program, the rice weed science project and the rice agronomy project.

This year, the LSU AgCenter received registrations for the 59th and 60th rice varieties released from the facility in its 113-year history. LSU AgCenter rice breeder Adam Famoso outlined those two varieties to producers. In seed production this year, Avant is a



Figure 2. Connor Webster demonstrates efficacies of new products available for rice farmers to combat weed infestations during the H. Rouse Caffey Rice Research Station Field Day. Photo by Derek Albert/LSU AgCenter.

new, conventional long-grain variety which, as its name suggests, is an early-maturing cultivar. In multi-location trials, Avant has shown heading dates that are four days earlier than CL111 — the previous earliest maturing variety in the AgCenter’s arsenal — and seven to nine days earlier than Cheniere.

“Avant is one we’re excited about,” Famoso told growers. “For the past couple years, we have been working pretty hard on conventionals. This is the first one to come out of those efforts, and we think we have some more exciting ones in the pipeline.”

Another conventional long-grain variety, Addi Jo, was also on display at the field day. Famoso said this high amylose variety has sparked interest among food manufacturers who prefer the cultivar’s unique cooking qualities. He said export markets have also shown interest in this variety.

“We’re most excited about the potential of this variety for export markets, primarily Latin America,” Famoso said. “This is what they want with their rice. The feedback we’ve had from a lot of importers has been very positive. We think this is a good first step into this high amylose, high quality rice.”

Louisiana rice growers were also given updates from other research projects that focus on rice cultivation. LSU AgCenter entomologist Blake Wilson told growers the rice water weevil remains the industry’s top

pest species and should be controlled with seed treatments at planting time. He also said a pest plaguing the crawfish industry this year has been the apple snail.

Though the invasive species has proven harmful to crawfish yields, their damage to rice fields is dampened by drill seeding and flooding practices, he said.

Molecular geneticist Herry Utomo told growers about new developments into high-protein, low –glycemic index rice. Since the release of Frontière —developed by Utomo and biotechnologist Ida Wenefrida—consumer demand has spiked. Utomo said work is continuing on the improvement of the protein content from Frontière’s 7-8% to more than 12% with one rice line that is currently in development.

Those in attendance were introduced to new faces at the AgCenter, who, starting this year, are heading up rice research projects. Those new faculty include Connor Webster, weed science; Felipe Dalla



Figure 3. Rice Breeder Adam Famoso outlines the latest rice variety developments at the LSU AgCenter Rice Field Day on June 29. In 2022, the LSU AgCenter progressed three new varieties that will soon be available for rice producers to plant across the state. Photo by Olivia McClure/LSU AgCenter



Figure 4. Before taking the reins as LSU interim vice president of agriculture and dean of the LSU College of Agriculture, Mathew Lee introduced himself to the audience during the LSU AgCenter Rice Field Day. Photo by Derek Albert/LSU AgCenter.

Lana, plant pathology; and Irish Pabuayan, agronomy. Also on hand was Matthew Lee, Ph.D., who will soon step into his role as interim vice president of agriculture and dean of the LSU College of Agriculture. He outlined his plan for the LSU agricultural arm as he prepares to take the reins in August.

“I look forward to listening to a lot of our interest groups and different constituencies to get a real sense of what LSU and the agricultural enterprise area need to do to help enhance our impact on our state and local communities,” said Lee

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Late-season crop primed for rice stink bug



Figure 1. Rice stink bugs are highly mobile and can be located in fields of susceptible growth stages.

The primary late-season pest of rice is the rice stink bug, *Oebalus pugnax*, and its management should be considered in all fields that are in early stages of grain fill through to hard dough. Stink bugs are highly mobile and can locate fields of susceptible growth stages. This means fields that are either the first to head out, or the last, in an area are often at risk of greater infestations. Direct reductions in rough rice yield are thought to be minimal in all but the most severe infestations. However, impacts to rice milling quality including reductions in head yield and possible penalties for rice peck (discolored kernels from stink bug feeding) can still impact a grower’s bottom line. Here are some considerations when deciding how to control infestations.

1.) Crawfish production. None of our currently registered products are labeled for rice that is going to be crawfished the following year. Sadly, that means stink bug infestations must go untreated in many acres in the central and southwest part of the state. The pyrethroids, including lambda-cyhalothrin (Warrior and generics), are highly toxic to crawfish and care should be taken not to drift onto fields used in aquaculture. Tenchu (dinotefuran) offers a safer option for use in fields with crawfish ponds nearby.

2.) Infestation levels. Not all stink bug infestations justify treatment. Fields should be sampled regularly with a sweep net to determine pest numbers. Take 25 sweeps in the morning at four separate spots in a field at least 50 feet from field borders. Treatment is likely justified if >30 stink bugs per 100 sweeps are observed during the first two weeks of heading or 100/100 sweeps thereafter.

3.) Mill history. USDA rice grading standards state that rice with >2.5 or >4% damaged (discolored) kernels will be designated as U.S.4 and U.S.5, respectively. Determining those percentages, however, is somewhat subjective, and may not be done uniformly at all rice mills across the south. If you've not had issues with penalties for peck in the past, you can be less aggressive in applying controls.

4.) Insecticide resistance. Resistance to lambda-cyhalothrin has been documented in populations of rice stink bug for several years. Control failures are common in central and northeastern Louisiana. It is not known if cross resistance to other pyrethroids is present. Consider applying Tenchu to control pyrethroid-resistant populations.

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Rice Research Station bolsters faculty with rice agronomist

Focus: Dr. Irish Pabuayon

What are the glaring needs of the Louisiana rice farmer? That is what the LSU AgCenter's new rice agronomist wants to find out as she, literally, gets her feet wet at the H. Rouse Caffey Rice Research Station.

Irish Pabuayon has wasted no time in instituting her grand plan for assisting the state's rice producers in producing the most economical and sustaining rice crops that Louisiana's rich soil will allow. What's her first step in reaching this goal? It must start with the producers, she said.

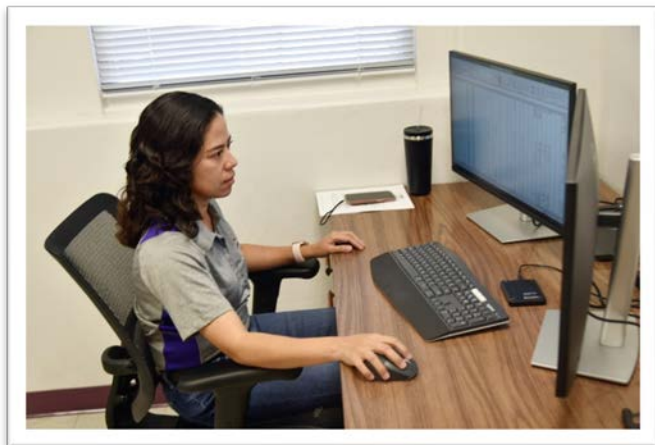
"My program will build a strong relationship with the producers in the area," she said. "In order to do this, my program will conduct off-station field trials. I believe in any agronomy program it is important to have an on-farm component so that the farmers can view our research in their own established management practices."

Pabuayon's education background began in her home country where she earned an undergraduate degree in chemistry from the University of the Philippines at Los Baños. Once stateside, she earned a master's degree — and subsequently, a doctorate — in plant and soil science from Texas Tech University. Her core concentrations in earning both of her graduate degrees were agronomy and crop physiology. As a postdoctoral research associate at Texas Tech University, Pabuayon focused her work on successful use of limited water resources, nutrient partitioning, updated fertilizer requirements, new cotton cultivars and economic implications of additional fertilizer use.



While most of her work revolved around the West Texas cotton industry, she also worked with grain sorghum, sesame, sunflower, safflower and guar. Though varied as her experience is with other crops, she is no stranger to rice. Before her educational endeavors led her to Texas, her undergraduate work in the Philippines landed her a job at the prestigious International Rice Research Institute. During her five-year tenure working there, she served as a chemist, laboratory manager and rice crop researcher, where she managed the world's longest running experiment for a triple rice cropping system. Her extensive list of scholarly publications includes results from numerous rice agronomy research studies including nutrient uptake in rice salinity trials and irrigated rice studies.

“I think that my background and my research that I have been doing fits perfectly to what the Rice Research Station is doing in order to move forward,” she said. “I was very interested in this position because it will give me a chance to continue supporting Louisiana producers and the agricultural community by developing updated, efficient agronomic



LSU AgCenter Rice Agronomist Irish Pabuayon has joined the faculty of the H. Rouse Caffey Rice Research Station. As producers begin to harvest this year’s rice crop, she will be tabulating and analyzing what it takes for those growers to produce a profitable and sustainable rice crop. Photo by Derek Albert/LSU AgCenter

recommendation packages for new rice cultivars.”

Kurt Guidry, resident coordinator of the Rice Research Station said Pabuayon’s addition to the faculty will further expand the AgCenter’s vital research-based extension offerings to the rice growers of our state.

“With the rapid rise of input costs such as fuel, fertilizer and agricultural chemicals, it is more important than ever for the AgCenter to lead the way in developing best management practices that maximize their inputs for our rice farmers,” Guidry said. “I am confident Dr. Pabuayon’s experience in international rice research can help our growers cultivate healthier, increasingly sustainable and more profitable rice crops.”

The current volatile economic climate of producing crops will be a driving force in Pabuayon’s

research efforts while at the Rice Research Station, she said.

“I would like to develop efficient recommendations because rice, like many other crops, is challenged by the high cost of fertilizer ... and herbicides and pesticides are becoming more expensive,” said Pabuayon. “So, this prompts a need to focus on research that will maximize productivity while minimizing the losses of these resources.”

Pabuayon has hit the ground running since her arrival in south Louisiana. She said her work has already begun as research plots are analyzed and prepared for harvesting. Looking ahead to more analyses, she said she plans on studying best management practices for ratoon rice cropping, nutrient management practices and rice-crawfish intercropping. She said she plans on employing new technology in studying these topics.

“Right now, we have a wide array of sensors that can give us phenotypic and physiological measurements that — if implemented correctly and calibrated — can minimize the time that we are measuring data such as plant height, nitrogen content and the overall properties of the plant.”

Her prior research with new crop cultivars will offer a smooth transition to her new role here as she aims to have her work complement the Rice Research Station’s breeding program.

“The Rice Research Station is continuously developing new rice cultivars,” she said. “And I think it is important that each cultivar is equipped with the agronomic recommendations that properly fit its characteristics.”

Pabuayon, who hails from the southern-most province of Luzon — the largest island in the Philippines — said scholarly research is a shared common interest in her household. Her husband, Isaiah Pabuayon, has taken a role as a postdoctoral researcher in LSU’s biological sciences department as a geneticist.

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The LSU AgCenter H. Rouse Caffey Rice Research Station is on Facebook. The page provides timely updates on research conducted at the station as well as other useful information. The page can be accessed at the link below. Simply go to the page and click on LIKE. Updates will then be posted to your Facebook newsfeed. If you are not currently a user of Facebook, signing up is easy and free.

<https://www.facebook.com/LSU-AgCenter-H-Rouse-Caffey-Rice-Research-Station-212812622077680/>



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This newsletter is produced by Derek Albert, Kurt Guidry, Darlene Regan, and Jennie Gary.