



**Southwest
Region**



Rice Research Station News

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Considerations for the



Upcoming Crawfish Season

While there are different strategies for producing crawfish, a large segment of crawfish production in the state occurs under a rice-crawfish rotational approach. With this strategy, crawfish production follows the rice crop in the same field, and preparations begin immediately after rice harvest. One of the first priorities consists of managing the forage crop for optimum food resource and for minimum impact on water quality upon establishment of the permanent flood.

Residual straw and stalks in harvested rice provide little food resource benefit for crawfish. The bulk of the required forage base is derived mainly from regrowth of the rice stubble after grain harvest. As with the main rice crop, regrowth responds best to adequate nutrient and moisture levels. Residual levels of phosphorus and potassium from applications in the main crop are often adequate for the ratoon rice crop, but some stubble fields may respond to an additional application of nitrogen. This is best assessed on an individual basis by soil tests and visual cues. Nitrogen applications, when necessary, should be accompanied by irrigation in the absence of rainfall.

Irrigation of the ratooning rice is often required with or without fertilizer application. Rice has a high water requirement and when not supplied by timely rains, irrigation becomes necessary for optimum growth. Crawfish aquaculturists were once hesitant to pump water onto fields during the early regrowth phase for fear of encouraging brood crawfish to emerge from burrows prematurely. Research has since determined that most of the productive broodstock are burrowed higher up on the levees and are not subject to emerging from shallow flooding (3 to 5 inches) of the fields during summer. In fact, it has been shown that crawfish emergence under normal fall flooding is largely dependent on heavy rainfall events and less on timing of the permanent flood. Thus, there is little harm in periodic irrigation or in maintaining a shallow flood in fields between rice harvest and establishment of the permanent flood in the fall.

Irrigation during this time is not only beneficial (and sometimes crucial) for maximum rice growth, it can also be a very beneficial tool for water quality management. Decomposition of straw (residual of the rice harvest) following the crawfish permanent flood can result in a critical water quality issue for hatchling crawfish by reducing dissolved oxygen concentrations to lethal levels if the biomass of straw is too great or water temperatures too warm. For this reason, it can be extremely beneficial to rid the pond of excess straw biomass, which contributes to the massive decay. Baling and then removing from the field or burning the straw immediately after rice harvest are two means of ridding the field of excess dead material. Another means is by achieving much of the inevitable decay prior to the fall flood-up, thereby lessening the amount of decomposition that takes place after the permanent flood.

Decomposition is hastened in the presence of ample moisture. Therefore, irrigation, when necessary, after the rice is harvested not only ensures adequate moisture for plant growth, but also acts to facilitate decomposition of the rice straw prior to establishment of the permanent flood. One of the most efficient methods for providing sufficient moisture for plant growth and decomposition is to establish a shallow flood on the field, allow complete evaporation, and repeat as necessary until the deeper permanent flood is established and maintained.

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Baling (and removal) of rice straw following the grain harvest is one way of mitigating low dissolved oxygen conditions in crawfish ponds following the permanent flood.

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Special Dates of Interest:

2013 USA Rice Outlook Conference
December 4-6, 2013
St. Louis, MO

Rice Technical Working Group
February 18-21, 2014
New Orleans, LA

Update on Kellogg's Rice Sustainability Program



Diane Holdorf, Chief Sustainability Officer, Kellogg's, speaks at the RRS field day.

Faculty from the Rice Research Station have been instrumental in working with Kellogg's and Louisiana Rice Mill to develop the Louisiana Master Rice Grower program. Kellogg's has initiated an industry-wide program to improve the sustainability of all aspects of the production of their products. The Louisiana program has been in development since 2010. The program features a common sense approach to sustainable rice production, and the AgCenter's Master Farmer Program is an integral part of the Kellogg's program. The Louisiana Master Rice Grower Program will serve as a model for the development of similar programs around the world where rice is produced for use in Kellogg's products.

At the Rice Research Station Field Day, held June 26, representatives from Kellogg's travelled from Battle Creek, Mich., to recognize the first top-level participants in the program. A financial incentive is provided for rice sold to Kellogg's by program participants. These individuals have the distinction of being designated as a Master Rice Grower. Four levels (Bronze, Silver, Gold and Platinum) can be attained by farmers who complete different stages of the program, including classroom sessions, farm practice documentation, attending field days and writing and enacting a conservation plan.

Recognized at the field day were Platinum-level producers Dwayne Compton, Rene Daboval and Shannon Daboval of Jefferson Davis Parish; Eric Unkel of Allen Parish; and Mark Zaunbrecher of Calcasieu Parish. Gold-level farmers were Ray Faulk, Dale Thibodeaux, Randy Thibodeaux, Ross Thibodeaux and Steven Thibodeaux, all of Acadia Parish; Tommy Webb of Avoyelles Parish; and Michael Talley and Craig Zaunbrecher of Jefferson Davis Parish.

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Pest of the Quarter - Blackbirds

In Louisiana, several species of blackbirds are responsible for damage to rice crops. Red-winged blackbirds, brown-headed cowbirds and common grackles are the primary species of concern. Damage takes place at both planting time and near harvest. In the spring, blackbirds consume seed and pull seedlings; this damage is sometimes severe enough to require replanting of fields. In the summer and fall, blackbirds eat rice in the milk, dough and hard-seed stages of development and can cause significant reductions in yield. Damage to rice by blackbirds tends to be localized and most severe in fields planted in close proximity to blackbird roosting areas. Timings of planting and harvest are also closely related to blackbird damage. Early-seeded fields are most likely to receive damage as are fields harvested late. This is because damage is caused by both resident and migrant blackbirds, and migrant birds reach peak numbers from fall through early spring. Blackbird depredation on rice has always been a difficult problem to solve. Harassing birds from fields using pyrotechnics and live ammunition is only moderately effective in reducing the damage. Through the years, the Rice Research Station scientists have worked with other scientists on several promising blackbird repellents. One of these, AV-1011 (active ingredient anthraquinone), has been used as a seed treatment over the past three growing seasons under a Section 18 registration. The repellent works well, and work is continuing to have this product fully labeled under a Section 3 registration.

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Blackbirds feeding on ripening rice.



HIGHLIGHTS 2013 FIELD DAY





HIGHLIGHTS 2013 FIELD DAY



35th RICE TECHNICAL WORKING GROUP



MEETINGS HELD AT THE
SHERATON NEW ORLEANS



**FEBRUARY 18-21, 2014
NEW ORLEANS, LA**

**FOR MORE INFORMATION
VISIT THE WEBSITE AT:
WWW.RTWG.NET**



The LSU AgCenter Rice Research Station Rice Cam will show the progress of a foundation seed production field of the variety CL111. The field was planted on March 25 at a seeding rate of 40 pounds per acre. CL111 is a very early long-grain Clearfield variety that will be widely grown throughout Louisiana as well as the southern U.S. rice production region.



USA Rice, Dow AgroSciences Team Up on Rice Month Scholarships; \$8,500 in Awards Available

USA Rice Federation is conducting a National Rice Month (NRM) scholarship contest, sponsored by Dow AgroSciences. High school seniors in the 2013-14 school year from rice-growing counties in Arkansas, California, Louisiana, Mississippi, Missouri, and Texas are eligible to apply.

To qualify to win a USA Rice National Rice Month Scholarship, students must conduct a promotion activity in their local community during September with U.S.-grown rice as the central theme. Entries must provide details of the promotion and should be submitted by Oct. 11, 2013.

Three scholarship prizes totaling \$8,500 are available. The grand prize is a \$4,000 scholarship and a trip to the 2013 USA Rice Outlook Conference in St. Louis, MO, for the scholarship presentation. The second-place winner will receive \$3,000 and third-place, \$1,500.

September is National Rice Month — a time for America to salute its rice farmers and everyone involved in the U.S. rice industry. NRM was initiated by an act of Congress in 1991 and is conducted by the USA Rice Federation.

For more information and a scholarship contest entry form, visit www.usarice.com.

Contact: [Kim Broome](mailto:Kim.Broome@usarice.com), (703) 236-1446



Soybean Research at the Rice Research Station

Soybeans are the primary rotation crop with rice in southwest Louisiana. The economic importance of soybeans to the southwest region is highlighted when you consider that the combined planted acres in Jefferson Davis and Acadia parishes alone represent approximately 10% of the statewide soybean production. Because of this, it is vital that research is conducted to improve the productivity and sustainability of the crop in the region. While most people are aware of the vast array of rice research conducted at the Rice Research Station, many may be unaware that a considerable amount of research is also conducted annually with soybeans, wheat, grain sorghum, and even sweet sorghum at the station's South Farm.

The largest soybean trial conducted each year at the South Farm is the statewide, multilocation variety trial. The South Farm is one of the seven variety trial locations around the state. This year approximately 181 soybean varieties are being evaluated in the trials, which include entries from the group III, IV and V soybean maturity groups. Soon after harvest each year, trial results are posted online on the LSU AgCenter's website (http://www.lsuagcenter.com/en/crops_livestock/crops/soybeans/). The variety trial results are an invaluable tool to help producers select the most productive soybean varieties in their region.

Soybean production in southwest Louisiana can vary greatly from the central and northern parts of the state. For example, soybeans in southwest Louisiana are typically grown in rotation with rice on precision-leveled ground without irrigation. Raised beds are rarely used because many producers use grain drills for planting and do not want to add the additional time and cost associated with re-leveling raised beds for rice the following year. Soybean production systems like these, coupled with the higher humidity and disease pressure in southwest Louisiana, are not ideal and generally result in lower yields than other parts of the state. Research utilizing soybean production systems common in the southwest region of the state is vital to maximize yield potential and grain quality and create best management practices reflective of the area.

The optimum date of planting for late group IV and early group V soybeans is still an area of concern in southwest Louisiana. Current Louisiana recommendations for the optimum planting window for soybeans were determined with research conducted in northeast Louisiana at the Macon Ridge Research Station in Winnsboro and in the central part of the state at the Dean Lee Research Station in Alexandria. Because these stations are farther north, past date-of-planting research may not adequately reflect optimum planting dates in the southwest region. The current recommended optimum planting window for group IV soybeans is from April 15 to May 10, while the recommended window for group V soybeans is from March 25 to May 5.

Preliminary date-of-planting research was conducted at the South Farm in 2012, which compared mid-April to mid-May planting dates for indeterminate group IV and V Pioneer variety soybeans. This research found that mid-May planted soybeans, which is outside the current recommended group IV soybean planting window, numerically outyielded all soybeans planted in mid-April. Specifically, statistically higher yields were observed for the mid-May planting as compared with the mid-April planting for the variety 94Y40 (40.2 and 19.2 bu/A), 94Y70 (49.3 and 24.4 bu/A), 94Y80 (53.0 and 40.1), and 95Y10 (58.0 and 34.3). The grain yield for the variety 95Y01 was numerically increased from the mid-May date as compared with the mid-April date of planting (53.0 and 40.1); however, it was not statistically significant.

This limited data set, coupled with the particular lack of research data generated in southwest Louisiana, suggests that the optimum planting dates should be reevaluated in the region. To this end, a date of planting trial was established this year. The trial consists of four group IV and four group V soybean varieties and six dates of planting. The actual dates of planting this year were March 22, April 9, April 23, May 9, May 23, and June 12. This date-of-planting research is also being conducted at the Dean Lee station. Results of both trials will be shared at local grower meetings this winter.

Other soybean experiments being conducted at the South Farm include trials focusing on pathology, fertility and entomology. Continued research focusing on improving soybean productivity in southwest Louisiana is vital to the sustainability and productivity of the crop in the region.

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Date of planting trial located at the Rice Research Station south farm.
Trial includes 6 dates of planting. Picture taken June 22, 2013.



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Join us on Facebook !

The LSU AgCenter Rice Research Station is now on Facebook. The page will provide 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 homepage. If you are not currently a user of Facebook, signing up is easy and free.

<http://www.facebook.com/#!/pages/LSU-AgCenter-Rice-Research-Station/212812622077680>

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<https://store.lsuagcenter.com/>



Laura Monte

Laura Monte has been working at the Rice Research Station since 2002 when she was a high school student.

She works for Dr. Don Groth, plant pathologist, in the disease lab. "I started in the breeding program with Dr. Steve Linscombe."

Working with Dr. Groth, her tasks as farm assistant are varied.

One day, she might be out picking panicles or recording Dr. Groth's disease ratings, and the next day you may find her in the lab loading seed for the research planter or purifying rice tissue in the autoclave.

Much of her work involves propagating viable rice disease, such as bacterial panicle blight or sheath blight. Tissue is sterilized in an autoclave, then exposed to disease in a Petri dish. Later, the disease is released onto research plots to determine different varieties' responses to disease.

Monte, a 2006 graduate from Notre Dame High School in Crowley, studied massage therapy but decided she wanted to continue working at the Rice Research Station. Her father, Bill Leonards, is the Rice Research Station's farm manager.

Farming has been a way of life in the families of her mother and father, she said, as well as her husband's family.

Her husband, Kendall Monte, is a firefighter in Crowley. They are expecting their first child.

Laura said her boss is easy to work with. "He's real laid back. He lets us do our jobs on our own."

Laura and her husband enjoy their three Dachshunds, as well as fishing and watching baseball.

Groth said Laura is a key employee in his lab.

"I don't know what I would do without her," he said. "Laura is the type of employee that all employers wish for: hard working, conscientious and dedicated. She keeps the plant pathology program organized and functioning."



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The LSU Agricultural Center is a statewide campus of the LSU System and provides equal opportunities in programs and employment.