Louisiana Agricultural Consultants Association

Turn Row Talk

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President's Column

Jay Frantom, Ph.D.
River Road Crop Services

There's nothing like a high-water spring to squelch the excitement of planting time along the Ouachita—and 2018 is no exception. At this writing, local eyes are on the Ouachita and its tributaries, well up into southwest Arkansas. To the non-agrarian, we might appear obsessed with river gauges and weather radar, but 4-5 inches of rain across the upper watershed can really exacerbate our downstream flooding problems. The farmlands I call my home territory are not only subject to backwater flooding, but several thousand acres of client farms on the west bank are not levee-protected. The west bank is all fine alluvial soil with a fast fall from the natural levee, but when the Ouachita reaches flood stage (40 ft. at Monroe), the lower ends of the rows are too wet to manage. The Ouachita crested on March 16 at 47.40 ft. The rate of fall since the crest has been the slowest in my recollection. Absent some big rain event, it may be mid-May before we're dried, re-hipped and planted on the low ends. As of today, May 4, the rate of fall is finally increasing: we're at 40.1 ft. and anticipating a 4.0 ft. fall over the next five days.

Our corn planting began in early March, but rain delayed completion until shortly after Easter. Predictably, the backwater flooding pushed the feral hogs out of the swamps and into the corn. One night is all it takes for a sounder of feral hogs to do some serious crop damage—and we've counted upwards of 30 in a single group. Since mid-March, hunters have killed 150-plus hogs in some of the worst-hit Caldwell Parish corn fields. In addition to our local dog hunters, a "posse" came up from Monterey on multiple occasions (some of Richard Griffing's farmers) to show us how it's done with high-tech night-hunting equipment. Those boys are serious hog hunters and pack some high-dollar lethal weaponry. Not to be outdone, several of my farmers decided to go "all in" with the purchase of thermal rifle scopes, binoculars, and other pricey gizmos. Lo and behold, their CPA 's told them that those expensive man-toys qualify as expenses with proper documentation of hog damages (I'm not sure what their wives told them).

Despite our well-intentioned efforts and expenditures, the backwater hogs are proving to be relentless. We've replanted some of the corn, but we'll live with some of the damage or plant back with soybeans. We keep our replant options open with consideration to preemergence herbicides and plant-back restrictions. No doubt, soybeans will be on the menu later in the season, along with the "roasting ears". And there's that depressing statistic that keeps coming back to mind: 70-75% annual removal just to keep a cap on population growth. As the research indicates, we're obviously not going to "shoot our way out" of the feral hog problem.

At LACA's spring executive board meeting, we voted in favor to donate $500 to each of LSU Entomology, Plant Pathology, and the School of Plant, Environmental, and Soil Sciences. The stated intent of these hopefully recurring donations is to support student professional development. That might include the following: travel awards for students to present at scientific meetings, travel expenses for distinguished guest speakers, departmental field trips, and other expenses related to professional networking. I personally contacted Dr. Mike Stout (Entomology), Dr. Lawrence Datnoff (Plant Path.), and Dr. Don Labonte (SPESS) with news of our donations. Each of these gentlemen expressed his sincerest appreciation to LACA, not only for the donations, but also for our other efforts such as the Ray and Dorothy Young Endowed Assistantship and the LACA scholarship program. I encourage the LACA membership to consider individual donations to any of these outstanding LSU College of Agriculture programs. Donations are made through the LSU Foundation and may be directed to a specific department and fund. Fund #'s can be found on page 2 of 6.

Back in March, I attended the 2018 meeting of the Southern Soybean Disease Workers, an annual

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gathering I've neglected to attend since my departure from graduate school. About 3-4 minutes into the first talk, I was reminded that my "old school" brain could use a makeover. So much of current agricultural research relies on DNA technology, and to understand some of the current research, a familiarity with terms and procedures is essential. I'll readily admit that I'm lacking in that regard. (I recall similar thoughts 40 or so years ago when I rolled off the turnip truck at the front door of LSU Plant Path.) Fortunately, I was able to follow the presentations that weren't focused so much on molecular biology. Post-season I'm going to make an honest effort (it's okay to laugh) to acquire a "hands-off", conversational knowledge of some of the new terminology and procedures. At 65, I'm of the belief that my "old school" brain is still young enough to learn a "new school" thing or two. Now, if I could just locate my reading glasses, truck keys, and pocket knife…

Wherever we call our home base—cane, rice, or cotton country—we consultants face a multitude of problems. Our farmers need us "up and running" as much now as at any point since the early days of our profession. I remind you to pay special attention to health issues related to sun exposure, heat, dehydration, etc. And by all means, don't underestimate the value of a good laugh—particularly when you can direct it at yourself. I learned this over my 40-plus years of friendship and adventures with the late Dr. Dorwayne Glover—along with an appreciable amount of practical field entomology. I hope everyone has a safe, productive, and prosperous 2018 season. Lord willing, I look forward to penning another column in the winter newsletter.

Typical view from the turn row in hog country

70 acre corn field destroyed. Planted back to soybeans.

Thermal image at 1:51 AM, just before the shooting started

LSU Departmental Funding

Plant Pathology &

Crop Physiology—

"Excellence Fund" No. 100250

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SPESS—Fund No. 104089

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Entomology—

Fund No. 100162

There and Back Again: An Agriculturalist's Tale

Emily C. Kraus
2018 Recipient of the Young Endowed Assistantship Award

First, allow me to say "thank you" to Mr. Ray and Mrs. Dorothy Young, and to the Louisiana Agricultural Consultants Association, for affording me the opportunity to be selected for this prestigious award. I am much honored to have been selected from what I am sure was a pool of highly qualified applicants. LSU is a long way from Indiana, which was my first home, and where my family still lives. We have a small farm there where I was lucky to grow up around various animals including goats and turkeys. We also had a small amount of acreage dedicated to corn and soybean. I decided early on to become an entomologist, with my first degree coming from Purdue University in West Lafayette, Indiana. I continued as an M.S. student in the Kansas State University Department of Entomology, and then took a break from school as a volunteer for the United States Peace Corps in Senegal. There I served as a Sustainable Agricultural Extension Agent. Upon returning I worked for Monsanto, in St. Louis, for a year before making my way down to LSU for my PhD.

My dissertation work involves field, greenhouse, and laboratory research on the ecology and management of insects in rice ecosystems. My focus is on understanding interactions among the various pest organisms in rice as a way of developing more effective pest management practices. I am particularly interested in indirect interactions among insect pests, which occur when feeding by one pests alters its host plant in ways that affect subsequent herbivores that feed on the same plant. To study these interactions, I am using pests of rice in Louisiana, including the rice water weevil (RWW), *Lissorhoptrus oryzophilus,* sugarcane borer, *Diatraea saccharalis,* rice stink bug, *Oebalus pugnax* and fall armyworm (FAW), *Spodoptera frugiperda*. As part of this research I have developed novel insect sampling and infestation techniques. These include a challenging process of extracting RWW larvae from field soil samples, and re-infesting them into potted plants in the greenhouse. I also built field cages which included "pupal hangers" so that I could artificially infest field trials with sugarcane borer pupae.

One specific project I have worked on was to determine whether feeding by FAW larvae before flooding affects oviposition by RWW after flooding. These experiments were intended to determine if early season defoliation by FAW has a plant-mediated effect on RWW larval density. In order to investigate this question, FAW larvae were caged on young rice plants in sixteen 3' by 3' plots. The "cages" were created using metal flashing, applying Tanglefoot around the flashing to keep larvae from escaping. Treatment cages were infested with 100-150 FAW larvae. These larvae were allowed to feed for seven to ten days. After that point damage was rated as the percent leaf tissue consumed and FAW larvae were removed. The "cages" were then flooded and RWW allowed to naturally infest. Soil core samples were taken at two separate time points post-flooding to determine if the FAW herbivory affected RWW density in plant roots. These experiments were performed over two field seasons. Results indicated inconsistent effects. In the first season FAW feeding before flooding significantly reduced densities of RWW larvae in two out of three experimental trials. However, in the second field season there were no significant effects in any one of four trials.

In a separate set of experiments, we did see a reduction in rice plant tolerance to RWW injury to rice roots after flooding following defoliation before flooding. Rice growers who experience early season FAW infestations may need to be more concerned about later season RWW infestation as the plants ability to compensate for root injury by RWW may be lower, resulting in reduced yields.

3x3 metal flashing, which was infested with FAW larvae prior to flooding

Flashing post-flood from which we took soil core samples. This allowed us to determine effects of FAW defoliation on RWW density.

My program has also been heavily focused on extension work with rice growers and stakeholders. I have participated in five annual rice field days as well as additional workshops on pest management. Coursework and side projects have also provided me with diverse experiences in pest management. I have published articles relating to IPM including an insecticide trial regarding management of the rice water weevil, (*AMT,* 2017, 1-2) a review paper examining biological control options for the invasive tawny crazy ant (*Insects* 7(4),77), and an extension piece promoting biological control with spined soldier bug (LSU AgCenter Pub. 3481).

My time at LSU has prepared me to step out into the agricultural world and begin my career. Agricultural challenges today have no borders, and I hope to include a component of international collaboration in my future

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position. Foreign travel will not be a new challenge for me as I have been able to use my time at LSU to gain experience in the Philippines, Nicaragua, and Cambodia. I believe collaborating with rice growers around the world can have mutual benefits for all involved, including Louisiana rice growers and stake holders. I hope to see my future career take me in this direction so that I may continue to contribute to rice science and Louisiana agriculture. I titled this piece *"There and Back Again: An Agriculturist's Tale"* for a couple of reasons. One is that while I have invested myself in Louisiana, I find myself each year traveling back to Indiana. The second is that I also always find myself coming back to LSU. You never know where agriculture will take you and I hope my journey is far from over!

Dr. Stout supervises as I plant my first field trials.

Commissioner's Message

Trade is currently on the top of the minds of every farmer in America. As we make the hard decisions of which crops to plant and how many acres to produce, we must carefully analyze the flood of information related to every trade deal. The negotiations with China, the Trans-Pacific Partnership, the North American Free Trade Agreement, the South Korean Free Trade Agreement, the European Union, India, the Pacific Rim and many others highlight depth and breadth of these discussions. More than 75 percent of the entire world's trading economy is now being discussed and renegotiated.

To the end, we must maintain the position that upon completion of these negotiations, the playing fields will be leveled and that we will have a tremendous opportunity for market expansion and improvements in commodity prices. To date, the cataclysmic decline in commodity prices that was predicted to occur as a result of these negotiations has not occurred. We must negotiate from a position of strength and we certainly cannot continue to trade prosperity for peace abroad.

I have full faith in the ability of the U.S. delegation including U.S. Trade Representative Robert Lighthizer, Treasury Secretary Steven Mnuchin, Commerce Secretary Wilbur Ross and trade policy adviser Peter Navarro. Additionally Agriculture Secretary Sonny Perdue and Undersecretary Ted McKinney are traveling the globe opening new markets and working with our current trading partners to find solutions to current trade barriers and concerns.

The demands of the world markets cannot be met without the full participation of American agriculture. We have unprecedented opportunities ahead to fully participate in the future global trading network and command a major portion of this business.

In order for us to participate to our fullest capacity, we must continue to embrace all current and emerging technologies and invest heavily in education, job training, and infrastructure. We cannot lose our nerve and give in to those naysayers who believe that we should remain silent and accept what deals are offered and make the best of what we currently have. We must support our trade negotiators as they do the very hard work of getting the very best deals possible after considering all of the variables and options.

These negotiations have been ongoing for almost two years and many will be settled this year. Others will require further discussion in order to maximize our opportunities. One in three acres of America's production and the majority of Louisiana's crops are sold outside our borders. These are by far among the most important issues we face today.

Mike Strain, DVM
Commissioner
Louisiana Department of Agriculture and Forestry
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Time Well Spent…
Rice Research Verification Program
Johnny Saichuk

One of the best parts of my career with the LSU AgCenter was the time spent in the field most often associated with the Rice Research Verification Program, something I was not really interested in doing , but was "encouraged" to do by Ken Whitam. When we started the program it was with several goals in mind primarily to verify the AgCenter's research based recommendations. For years, and still in some cases, extension and research folks were told by growers that our recommendations just "didn't work in the real world" and that what happened in small experiment station plots was not the same as in commercial fields. For the most part we proved convincingly that the recommendations were valid.

We also learned much more from the program than the primary goal. It turned into one of the best training programs for ag agents working with rice and helped me tremendously by exposing new and unexpected situations for which we had no immediate answer or guideline. The growers who diligently met with us and walked their fields with us on a weekly basis (according to their feedback) found the experience valuable and personally rewarding.

At the right are two county agents who were long time participants and advocates of the rice research verification program: the late Glen Daniels of Concordia parish and the late Carlos Smith of Avoyelles parish. Both were unique dedicated individuals whose friendship I will always cherish.

Early in the program when carbofuran was being phased out and we were just beginning to learn how to use pyrethroids to control the rice water weevil the verification fields provided an ideal testing ground. We had to change our scouting method from using a bucket with a 40 mesh screen bottom and searching for larvae to searching for adults and determining when to apply the insecticide. We quickly found out the preliminary scouting method developed in limited testing would not work in the field and we made an immediate change. Instead of trying to use an adult threshold value we decided to spray upon presence of adults and standing water or intention to flood within 24 hours of application. Timing was so critical one other state's rice specialist said he told his growers to "scout for water" then spray. Our method worked and continues to be used.

Sometimes though it was things totally unrelated to rice production that proved the most intriguing, entertaining and educational. That made the hours in the heat and humidity worthwhile.

One of the spinoffs of the verification program was the measurement of water use in rice fields. While we did not install flow meters on all fields we did set up rain gauges at every field. That simple measurement proved valuable not only in tracking rainfall, but often provided an explanation for production problems. For example, when we recorded over 7 inches of rain during the pollination period at one field we could explain the disappointing yields at the end of the season and when we got over 10 inches of rain over night on a field just about to be harvested we could justify the lower than expected yields again. However, the rain gauges also provided a puzzle that when once solved always presented a "teachable moment" for the verification program staff. We checked the gauges on a weekly basis when we visited the fields. Often blackbirds had used the gauge as a perch and plugged them up by depositing their waste into the gauge. Becoming increasingly frustrated by this problem I resolved that I had to be more intelligent than a bird and should be able to figure out a method of preventing this problem. Realizing that the birds, usually males showing off to attract females, always chose the highest nearby object as a stage on which to perform we would set up something for them near the rain gauge. Each time we set this up we would ask the farmer why we're doing this. I recall distinctly one honest young farmer who simply said, "I have no idea". Below is proof that it worked.

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More recently and not associated with the verification program a farmer asked me to look at a problem. He took me to the field where about 20 yards from the edge were plants with blanked panicles. There were three distinct lines of injury leading from the edge of the field to the plants. When we walked out to the plants I noticed the leaves of the plants were all perforated with holes about the size of number 9 shot. I told the farmer it looked like three shots had been fired from a shotgun into the rice. When we walked back to the edge of the field there were three empty shotgun shells in the grass. Mystery solved.

The most consistent thing I learned in twenty plus years of walking rice fields is that every year was going to present something unique to my experience. Mother Nature loves to throw curve balls. I'm sure every consultant out there has had similar experiences that make us scratch our heads. Sometimes we get lucky and get a real satisfying feeling; sometimes we never figure out what happened. The challenges these situations present are the most rewarding part of this work that we do to help our fellow man.

The Art of Mentorship

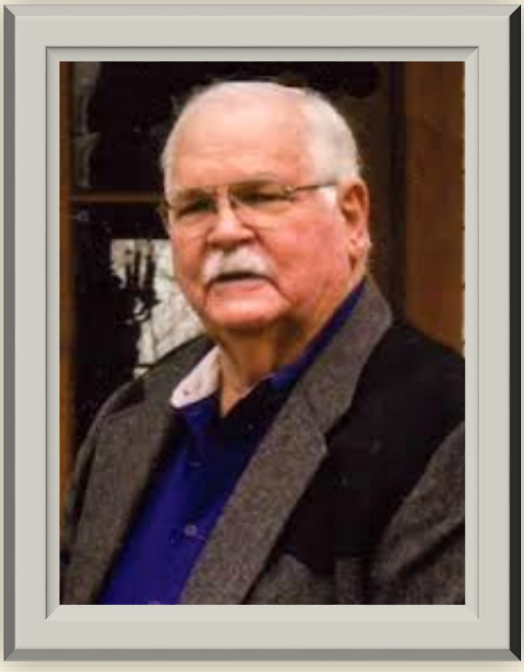
Hank Jones
RHJ Ag Services LLC
Macon Delta Land

Though a solid pest management background from college is beneficial, nothing can substitute for knowledge gained from seeing a crop grow year after year and facing problems head on. With the exception of a rare few, crop consultants have benefited immensely from the tutelage of other crop consultants. This experience is so valuable that it is a requirement, along with academic specifications, in order to qualify to be an independent crop consultant in Louisiana. For many endless summers over countless years, wisdom about a multitude of things including correct sampling methods and agronomic knowledge has been imparted to field scouts. For many of us, this was the foundation on which our careers were built. Even more important than in "in field" knowledge we gained, the "out of field" knowledge, whether we knew it or not at the time, was even more important.

I have and will always be a student of Integrated Pest Management. I love to hear stories from older generations of how pest management was achieved years ago. As a young budding consultant, I had the opportunity to scout with the late Dr. Dorwayne (Doc) Glover. I had known Doc since my youth from my father being a chemical sales rep. Doc and I had neighboring farms we checked in Franklin Parish and would turn row talk once or twice a week. He was short on help, and I had time on my hands, so he asked me to help. At that point in my career, it was a great opportunity. I had learned a lot about insecticide resistance at LSU, but he provided the boots on the ground experience from 30+ years of consulting. He shared with me a lot of horror stories, but I feel the most important lessons I learned were not scouting related. Doc always had a long story he would tell me when he was trying to impress his wisdom on me. Upon Doc's passing last year, I've counted it a true blessing that he saw potential in me and passed a lot of practical knowledge on to me.

As many of us well know, Dorwayne was never short on words or an opinion. He well knew that his opinions often shaped others' opinions of him. He told me "Don't ever let anyone change your mind over what you KNOW is right and defend IPM at all costs." He also advised me to voice my opinion when needed and not be afraid of ridicule. Until he died, he was one of the few people I trusted for good advice, such as "if you haven't sprayed for bollworms by July 10, you probably missed them."

Along with Richard Costello and Ashley Peters, I have an opportunity to help train an up and coming young consultant. It's very exciting to be able to share some knowledge, but most importantly, it gives me opportunity to think of the good fortune I've had to know people like Doc and countless other consultants I've admired in our association. In closing, I hope that I can pass along a few useful things on which this young consultant can build a foundation other than just chemical rates and thresholds. The people I've encountered that most impacted me as a consultant were the ones who wanted to see me succeed. In some way, hopefully our mentorship will pay tribute to the many mentors of LACA we've had in our past.



HIGH HONORS

LACA Voting member, Reynold Minsky was named 2018 Outstanding Alumnus for LSU College of Agriculture (Horticulture 1960). Pictured are Reynold and family.

Also recognized as a 2018 Outstanding Alumnus for LSU College of Agriculture (Dairy Science 1963) was Jerry Peters (our Past President, Ashley Peters' Dad).

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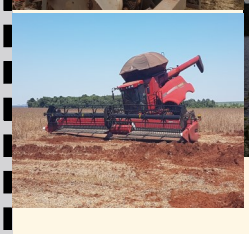
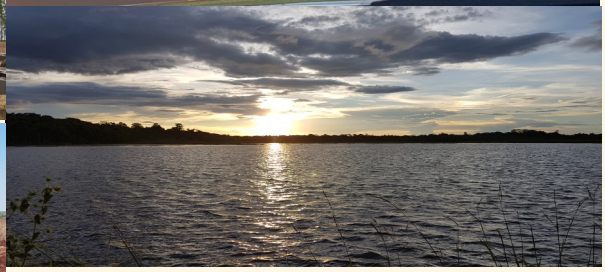
BRAZIL 2018

A sneak preview...





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

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