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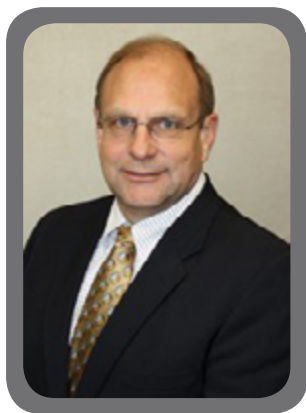
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Heep Center

In This Issue:

After the Flood - Wheat Picks - Irrigating Cotton - Promotion and Tenure
Retirements - Awards - Texas Wheat Outlook - more

Comments from our Department Head



Dr. David Baltensperger

Department Head

Texas A&M University

Department of Soil and Crop Sciences

dbaltensperger@tamu.edu

Welcome to the new academic year! As it begins, our department will be seeing new faces in the classroom as well as in many of the offices. Throughout the summer we have seen four staff members and several faculty/administrator changes. Dr. Travis Miller has retired from his position as the interim associate director for AgriLife Extension, after 38 years of service to Extension. Dennis Pietsch, Director for AgriLife Research Crop Testing Program, has retired after 44 years of service and Katrina Horn will be taking over those responsibilities. Dr. Scott Nolte began his career with us on Sept 1, as State Extension Weed Specialist.

With the end of the hiring freeze many units around campus have begun to hire and this has provided an opportunity for some of our staff. We have had two members of our teaching office depart for new waters. Megan Teel, undergraduate academic advisor, has relocated to the Department of Horticulture; and Amanda Ray, Administrative Assistant and graduate student advisor, has gone to the Office of Graduate and Professional Studies. Most recently Yvonne Coleman, a member of our business office team, has departed and Brittany Bartkowiak has taken a position with Texas A&M Forest Service. We look forward to new faces joining us soon.

chaos in its wake. The cotton crop in those areas was badly damaged. Harvested bales and modules were damaged, and we have seen pictures of cotton in trees. Rice re-crop harvest was severely impacted and some sorghum and corn fields and storage as well. Our livestock industry was hit hard by both direct impact on cattle and horses, and the impact on hay and pastures as well. Homes, farms and ranches will be on the road to recovery for many months to come and mosquitoes will complicate the recovery effort. We will keep all those affected in our thoughts.

Our water quality team has issued information on decontaminating private water wells (see story inside) and has put useful links on the Texas Well Owner Network website: <http://twon.tamu.edu>. Dr. Terry Gentry was featured on Good Morning America discussing the flood waters.

Several of our faculty members have received recognition and praise. Dr. Monte Rouquette was honored by Texas A&M-Kingsville, and Dr. Gaylon Morgan was honored by the Texas County Agricultural Agents Association. (See the articles inside for more details) We know that faculty members will be recognized in October at the society meetings, and will have more information on that next month.

A big congratulations to our recent

promotees: Joseph Awika to Professor, Terry Gentry to Professor and Nithya Rajan to Associate Professor with tenure. Whoop! Thanks to Dr. Paul Schwab for providing P&T leadership to get this year's process rolling.

We recently wrapped up our Extension Retreat, an opportunity for extension personnel in the department to gather and discuss the events and highlights of the year, as well as to gain new insight into financial and administrative changes. This year the retreat was combined with the Department of Wildlife and Fisheries, since Dr. Larry Redmon is now the interim associate department head for that department as well as our own.

Fall means an end to the field days. Rounding out the year were the Soil Health and Cover Crop field day in Williamson County, the Small Grain Wheat Workers meeting in Amarillo, the AMCOE corn breeding field day in Lubbock, and the Rolling Plains Summer Crop Field Day in Chillicothe. There is still no chance to slow down, however, as harvest has begun.

October will bring the Surface Mine Reclamation workshop, Ranch Management University, the Turfgrass Field day, the 3rd Annual Bennett Women's Conference and the Borlaug symposium, as well as the tri-societies meetings. We are also in the process of planning our Thanksgiving lunch and hope you can make time in your busy schedules to join us for some food and fellowship.

Hurricane Harvey's visit has left

AFTER THE FLOOD

Has water in my well been affected?

Private water well owners whose wells flooded from the recent rains should assume that their well water is contaminated until tested, according to Dr. Diane Boellstorff, Texas A&M AgriLife Extension Service water resource specialist, College Station.

“You should not use water from a flooded well for drinking, cooking, making ice, brushing your teeth or even bathing until you are satisfied that it is not contaminated,” Boellstorff said.



Private water well owners whose wells flooded due to recent rains from Hurricane Harvey should assume their well water is contaminated until they have it tested. (Texas A&M AgriLife Extension Service photo)

Boellstorff, a faculty member in Texas A&M University's soil and crop sciences department, said floodwater may contain substances from upstream, such as manure, sewage from flooded septic systems or wastewater treatment plants or other contaminants. A septic system near a well also can cause contamination when the soil is flooded.

She said owners should send their water to a laboratory for testing. The Texas Commission on Environmental Quality provides a list of certified laboratories that analyze drinking water samples at <http://www.tceq.texas.gov/goto/certified-labs>. The Texas Department of State Health Services website also lists local public health organizations that may offer well water testing at <https://www.dshs.texas.gov/regions/lhds.shtm>.

Drew Gholson, AgriLife Extension program specialist and Texas Well Owner Network coordinator, College Station,

said those with private wells possibly contaminated by floodwater should use only bottled, boiled or treated water until their well water has been tested and found safe.

“To make water safe for drinking, cooking and washing, bring it to a rolling boil for at least one minute and then allow it to cool,” he said.

Gholson, also in the soil and crop sciences department, said if boiling isn't possible, the water can be disinfected with regular, unscented household bleach.

“Add one-eighth teaspoon, about eight drops, per gallon of water, stir well and let stand for 30 minutes before using,” he explained.

Further details are described in a free AgriLife Extension publication: [Disinfecting Water after a Disaster](#).

Boellstorff said the well may need to be decontaminated to make the water safe to drink again. Instructions for decontaminating a well, including [Decontaminating Flooded Water Wells](#) and [Shock Chlorination of Wells](#), are available from AgriLife Extension's Texas Well Owner Network website at <http://twon.tamu.edu/fact-sheets/>.

“After a flood, well owners should inspect the well for physical damage and look for signs of leakage,” Gholson said. “If it appears damaged, consult a licensed water well contractor to determine whether repairs are needed.”

Gholson said well owners should also check the well pump and electrical systems.

“If the pump and/or electrical system have been underwater and are not designed to be used underwater, do not turn on the pump,” he said. “There is a potential for electrical shock or damage to the well or pump. Once the floodwaters have receded and the pump and electrical system have dried, a qualified electrician, well driller or pump installer should check the wiring system and other well components.”

For more information contact:

Diane Boellstorff, 979-458-3562, dboellstorff@tamu.edu

Drew Gholson, 979-845-1461, dgholson@tamu.edu

Note: AgriLife Extension, Virginia Tech and the Rural Community Assistance Program will be providing free water well testing to the affected areas. Contact your local AgriLife Extension Office to determine locations, dates and times.

Free testing for private water well owners in Hurricane Harvey flood area

The Texas A&M AgriLife Extension Service and others are collaborating to offer multiple well-water testing opportunities after Hurricane Harvey left potential contamination in its wake.

Residents who have private water wells in the area affected by flooding from Hurricane Harvey should assume their water is contaminated and have it tested, said Dr. Diane Boellstorff, AgriLife Extension water resource specialist, College Station.

Boellstorff said water from a flooded well should not be used for drinking, cooking, making ice, brushing teeth or even bathing until it is tested.

To help residents in the affected area determine if their well water is contaminated, AgriLife Extension is being joined by Virginia Tech and the Rural Community Assistance Program to offer free well water testing in several southeast Texas counties.

Residents can pick up a free water sampling test kit from their local AgriLife Extension office or other designated location, but must be able to return the sample to the AgriLife

Extension office from 8-11 a.m. on the designated collection date.

Instructions are included with the kits and only one sample kit will be provided per household. There are a limited number of kits, which will be distributed on a first-come, first-served basis.

The sample kit pick-up locations, start dates for obtaining kits and collection dates are as follows:

— Jefferson County: AgriLife Extension office, 1225 Pearl St., Suite 200, Beaumont. Kits available starting Sept. 14. Collection date is Sept. 25.

— Victoria County: AgriLife Extension office, 528 Waco Circle, Victoria. Kits available starting Sept. 15. Collection date Sept. 21.

— Hardin and Orange counties: AgriLife Extension office, 440 W. Monroe St., Kountze. Kits available starting Sept. 15. Collection date is Sept. 27.

— Wharton County: AgriLife Extension office, 315 E. Milam St., Suite 212, Wharton. Kits available starting Sept. 14. Collection date Sept. 18.

— Liberty County: Kits available Sept. 16 from 8:30 a.m.-noon at the Disaster Assistance Workshop, Raywood Livestock Market, 14810 U.S. Highway 90 E. in Raywood. Kits also available at the AgriLife Extension office, 501 Palmer Ave. in Liberty, on Sept. 18-19. Collection at the AgriLife Extension office on Sept. 20.

— Colorado County: AgriLife Extension office, 316 Spring St., Columbus. Kits available starting Sept. 18. Collection date is Sept. 21.

— Chambers County: AgriLife Extension office, 295 White Memorial Park Road, Anahuac. Kits available starting Sept. 20. Collection date is Sept. 27.

The test kits are being distributed in these locations, but any homeowner with a private water well in the flood-affected area is eligible to have well water tested. The samples will be analyzed for coliform bacteria by Virginia Tech. Water quality results will be confidential and will be emailed or mailed to residents' homes.

AgriLife Extension Retreat

The three-day event gave Extension Specialists an opportunity to refresh, learn of accounting changes, and prepare for a new fiscal year. This year was the first time that Soil and Crop Sciences combined with Wildlife and Fisheries Sciences for the workshop.



Promotion and Tenure



Dr. Terry Gentry has been promoted to Professor. His specialty is soil science.

Dr. Gentry received his Ph.D. in Microbiology & Immunology from the University of Arizona in 2003. He joined the Department of Soil and Crop Sciences at Texas A&M University as an assistant professor in 2006.

He teaches courses on soil and water microbiology and developed a new graduate course on environmental microbiology and a new undergraduate/graduate course on the environmental aspects of biofuel production. He coauthored the leading textbook on environmental microbiology.

Gentry's research focuses on the development and use of molecular technologies to enhance the detection and remediation of environmental contamination. Since 2006, Gentry has helped to acquire over \$9 million in grants and other funding, of which over \$3 million went into his program.

His research has resulted in 66 peer-reviewed publications and 185 presentations at local, state, national and international meetings. He has chaired/co-chaired 12 doctoral students and 14 master's students and advised nine postdoctoral research associates.

He received the Soil & Crop Sciences Department Special Achievement Award for Teaching in 2008, and for Research in 2011. He has also received a Dean's Outstanding Achievement Award for Excellence as a Member of an Interdisciplinary Research Team in 2014.

Dr. Joseph Awika has been promoted to Professor. His specialty is food science and technology.

Dr. Awika received his Ph.D. in Food Science & Technology from Texas A&M in 2003. He joined TAMU as an assistant professor in 2008 after previously serving on the faculty at the University of Missouri (2006-2008) and Arkansas State University (2004-2005).

He teaches courses in grain processing and carbohydrate chemistry, as well as the capstone course for the food science undergraduate program.

Awika's research focuses on the chemistry of interactions of grain polyphenols with carbohydrates and proteins in relation to grain function and bioactive properties. His program has received about \$2.3 million (over \$10 million with collaborators) in external funding from federal,

foundational and private company sources.

He is the recipient of the 2016 Excellence in Teaching Award from the American Association of Cereal Chemists International, and the College of Agriculture Dean's Outstanding Team Research Award in 2015.

Awika serves on the editorial board of two prominent journals, has chaired 11 doctoral and nine master's committees, and served on 67 others. His graduate advisees have received 19 competitive national research awards and fellowships since 2009.



Dr. Nithya Rajan has been promoted to Associate Professor with Tenure. Her specialty is crop physiology.

Rajan received her Ph.D. in Agronomy from Texas Tech University in 2007. She joined the Texas A&M AgriLife Research and Extension Center in Vernon as an assistant professor of cropping systems in 2010. She later joined

the Department of Soil and Crop Sciences as an assistant professor in 2014.

Rajan teaches a graduate course in crop physiology and developed an undergraduate capstone course in crop production systems after joining the department.

Her research focuses on cropping systems and physiology with emphasis on agroecology, crop modeling and remote sensing. She received over \$9.3 million in external research funding from agencies including the National Institute of Food and Agriculture, the National Science Foundation and the United States Department of Energy. \$1.1 million went directly to her program.

Rajan has served as a two-term associate editor for *Agronomy Journal* and served on several committees of the American Society of Agronomy. She has written 23 peer-reviewed journal articles (27 career), one book chapter, five proceeding papers and 64 scientific abstracts.

She has advised three postdoctoral research associates and chaired six doctoral committees, one master's committee and served on 11 others.

Congratulations!



Dr. Monte Rouquette

Congratulations to Dr. Monte Rouquette, Jr., Soil and Crop Sciences professor in Overton, who was one of four individuals recently named as 2017 Distinguished Alumni for Texas A&M University-Kingsville. He and the other recipients will all be honored at a reception October 20, as part of the Javelina Homecoming festivities.

A native Texan from the Gulf coast town of Fulton, Rouquette earned his Bachelor of Science degree in Agronomy from TAMU-Kingville in 1965, when the university was still known as the Texas College of Arts and Industries. He earned his Master of Science in Forage Cropping Systems from Texas Tech followed by a doctorate in Forage Physiology from Texas A&M University, where he was one of the first students to conduct joint research with Soil & Crop Sciences and Animal Science in the development of plant-animal science related to forage quality.

In 1970 Rouquette joined the Texas Agriculture Experiment Station in Overton (now the Texas A&M AgriLife Research and Extension Center). For the past 47 years he has focused on the plant-animal interface, specifically working to enhance

beef cattle performance through forage management and stocking strategies for sustainable pasture systems. Among his numerous journal papers, articles and abstracts is a 37-year study on the effects of stocking rates on forage maintenance, ecotype diversity and soil nutrient cycling.

The quality of Rouquette's work has been recognized before. He has been asked to serve on numerous research teams and has received many awards, including a Distinguished Service Award from the American Society of Animal Science-Southern Section, and the Soil & Crop Sciences Department award for Research. Monte is a Texas A&M University Regents Fellow, a Crop Science Society of America Fellow, and an American Society of Agronomy Fellow. He has received the TAMU Vice-Chancellor's Award in Excellence five times, earning awards for: Off-Campus Research, Team Research with Forage Legumes, Team Research with Forage Ryegrass, Team Research with Beef Supplementation, and the Texas Co-op Extension Team Award for Novice Grazing Workshop.

He has further contributed to agriculture by serving on the committees of sixty-five graduate students and several interns; and by providing mentorship to four Soil and Crop Sciences faculty members. His legacy will continue through the research and contributions of these individuals long into the future.

Congratulations to Dr. Gaylon Morgan who was recently named the State Extension Specialist for 2017 by the Texas County Agricultural Agents Association.

Dr. Morgan is a Soil and Crop Sciences Professor and State Extension Cotton Agronomist. He has worked for Texas A&MAgriLife since he was a student working on his Bachelor of Science degree, and continued working with Extension Specialists through his Master of Science and doctorate.

As a student he learned the value of the land grant mission in providing timely and unbiased information to clientele throughout the state of Texas.

Morgan was hired as an Assistant Professor and Extension Small Grains Specialist in 2003. He led the multi-agency effort toward annual, uniform replicated wheat and oat variety trials at over 30 Texas locations which have

produced an estimated benefit of more than \$30 million annually.

In 2009 Morgan was promoted to Associate professor and became the State Extension Cotton Agronomist. Since then he has focused on numerous outreach and applied research efforts which have been critical to cotton. He and his team earned the 2014 Superior Service Team award for Replicated Agronomic Cotton Evaluation (RACE) trials which have had an estimated impact of \$58 annually.

Morgan has earned many other awards including the Extension Specialist Superior Service award from AgriLife Extension; Cotton Specialist for 2016 by Bayer Crop Science; and 2009 Wheat Man of the Year by the Texas Wheat Producers Board. He also earned a Texas A&M AgriLife Extension Superior Service Team award with his Cotton Variety Evaluation Team.



TCAAA President Dr. Shane McLellan presents the State Extension Specialist of the Year award to Dr. Gaylon Morgan (L) during the annual meeting in Odessa.

Morgan finds that working with the county extension agents on applied research trials, educational programs and training is one of his favorite parts of his job.

"This award means a lot to me because it is given by my colleagues," Morgan said. "That makes it very special."

More Congratulations!



Congratulations to Dr. Bhoja Raj Basnet '10, for being selected to receive the first Dr. Theodore M. Crosbie Monsanto Beachell-Borlaug International Scholars Program Impact Award.

Basnet earned his Ph.D. in Plant Breeding from Texas A&M University in 2012, and is currently the hybrid wheat breeding lead for the International Maize and Wheat Improvement Center (CIMMYT) in Mexico.

According to the MBBISP brochure his career is “focused on leveraging germplasm diversity, breeding methods, advanced technology techniques and durable disease resistant approaches in wheat for small holder farmers globally, while contributing to developing future breeders”.

This award, which will be awarded at the World Food Prize in October, recognizes an MBBISP recipient whose work has gone beyond their academic experience and impacting in alignment

with Monsanto's Global Breeding vision of “improving lives through better harvests”.

Two other Aggies will also be recognized at the meeting. Anil Adhikari, a doctoral student under Dr. Amir Ibrahim and Sejuti Mondal, a doctoral student under Dr. Michael Thompson, are among the nine students who received MBBISP Fellowships in 2016.

SURFACE MINE RECLAMATION WORKSHOP

By: Kay Ledbetter

The 38th annual Surface Mine Reclamation Workshop will be Oct. 4-6 at the Hilton Garden Inn, Bryan/ College Station, 3081 University Drive East, Bryan, Texas 77802.

Dr. Sam Feagley, Texas A&M AgriLife Extension Service state soil environmental specialist in College Station, will lead the workshop, which is planned by industry reclamation personnel specific to Texas mining conditions related to lignite, uranium, clay and aggregates.

Registration for state and federal employees is \$85; all others are \$100. Registration is requested by Sept. 21. A \$20 late registration fee will be applied thereafter. Forms can be found at <https://smrw.tamu.edu/>.

This year's presentations include mine updates and policies, Texas Mining and Reclamation Association's Teacher Program update, mine work – big events, environmental work, industry summaries, dragline follow-up, an eagle's nest movement at Martin Lake and Texas Railroad Commission updates.

The workshop also will feature an area for posters and commercial displays, Feagley said. Mining companies, agencies and educational institutions will display current and completed projects that may be of interest to the other attendees. Also, commercial companies are encouraged to display the capabilities of their companies.

Feagley said this workshop came about due to the passing of the federal Surface Mining Control and Reclamation Act of 1977. Between 1977 and 1980, the industry, along with

Texas A&M AgriLife Research and AgriLife Extension personnel who worked with reclamation decided to hold a conference to pull all the coal mining and reclamation players together to discuss reclamation processes and their advantages and disadvantages.



These photos show the Brown uranium mine in Karnes County before and after reclamation. (Photos courtesy of the Railroad Commission of Texas)

Feagley said primarily the mining in Texas is for lignite, a young coal. Depending on the price of natural gas, about 25-45 percent of electricity in Texas comes from coal. Of that, about 75 percent comes from Texas lignite and 25 percent from western coal out of the Powder River Basin in Montana and Wyoming.

“Texas A&M has worked a lot with the mining industry to do research and improve reclamation processes,” he said. “This continues today.”

For more information concerning the workshop, contact Alisa Hairston at 979-845-0884 or ahairston1@tamu.edu.

Dr. Travis Miller retires after 38 years with AgriLife Extension

By: Kay Ledbetter

With crops in the ground 365 days a year in more than 150 counties in Texas, Dr. Travis Miller has worn through a lot of shoe leather during his 38 years with the Texas A&M AgriLife Extension Service. Now he's giving those shoes a break.

Miller may have carried the title of interim associate director for state operations with the AgriLife Extension



Dr. Travis Miller (Texas A&M AgriLife photo)

most recently, but he is much better known for the 20-plus years spent as the state small grains and oilseeds specialist for the agency.

Miller joined AgriLife Extension in 1979 as an area agronomist based in Weslaco. His responsibilities included field trials and educational programming, primarily in cotton, corn, sorghum and soybeans.

"The Rio Grande Valley was a really great place to learn," he said. "There are crops in the ground all year long. It's like being in a candy store if you are an agronomist; you pick up on a lot of issues in multiple crops."

But not all crops.

In 1982, when Miller moved to College Station to take the position as AgriLife Extension state specialist for small grains and oilseeds, he had never been in a wheat field.

Raised in the Corpus Christi area, he earned a bachelor's degree in agricultural mechanization from Texas A&M University-Kingsville, and master's and doctoral degrees in soil science from Texas Tech University in Lubbock.

"But I had the basic fundamentals of agronomy, and we had some good folks around to learn from," Miller said. "There's nothing like shoe leather too, getting out there and being amongst it."

And that's what he did, attending as many as 20 field days and another 30-40 producer meetings across the state every year.

"When I took over the job, my predecessor had largely worked in rice, and I saw there was a huge void in wheat and other winter cereals," he said. "We had a lot of researchers and faculty working in small grains, but a much lesser AgriLife Extension effort, so I decided I needed to do something about that."

Previously soybeans just hadn't worked, but "we figured out how to use the early maturing, early planted soybeans effectively. And while it is still not like Iowa, people know how to grow soybeans and do it well now."



Dr. Travis Miller addresses a field day early in his career. (Texas A&M AgriLife photo)

As for wheat, one of the biggest successes was getting uniform variety trials put out at various locations across the state, Miller said. Before his organized effort, the trials were limited to county agents getting bags of seed and planting them.

"We worked on getting data we could use to help producers make decisions

based on these uniform trials," he said.

Another crisis faced during the late 1990s and early 2000s was a lot of drought. Serving with the Texas Drought Preparedness Council, Miller said he spent a lot of time trying to inform people, particularly the public – the farmers already knew it was dry, what the issues were related to drought and the water supply and how it affected them.

Miller said his goal all those years was to get out among producers to know what was important to them and to create programs that made a difference to them – anything from variety trials to fungicide and weed control to soil fertility.

Miller said recruiting and hiring some very bright, capable young scientists was a significant achievement during his time as an associate head, which he left in June 2014 to serve in his current position the last three years.

Looking forward, he said no doubt these scientists and others will have to deal with the greatest issue in agriculture – water.

"You can't help but believe we are going to see a transition toward dryland and much more efficient cropping systems that use less water and are more tolerant to stress," he said. "I can't think of any more critical issue than our water supply and the careful stewardship of the supply we do have."

Miller won't get completely away from helping address those challenges. He said with he and his wife in reasonably good health, they are ready to do some traveling and spend some time with grandkids. But he will hold an emeritus title and still have an office on campus in the soil and crop sciences department, Heep 429C, so he will stay connected.

Dennis Pietsch Retirement Celebration

Dennis Pietsch, Director of the Crop Testing Program, has retired after 44 years of service to Texas A&M AgriLife Research. Friends, family and colleagues recently gathered at the ScottsMiracle-Gro facility to recognize his many accomplishments and celebrate his career.



During the reception Pietsch commented about the advancements made in crop testing during his career.

“When I started working, only corn and sorghum breeders did testing. We had crops in only four locations, College Station, Temple, Sugarland, and Plano. We planted seeds and harvested by hand,” Pietsch said. “The Crop Testing Program evolved from that.”

Today, seed for plots is packaged using laser-trip seed counters and are then planted with a 4-row Almaco plot planter. Tests are harvested using a 3300 John Deere combine equipped with a Harvest Master data collection system that collects plot weight, test weight, and moisture in field as plots are harvested.

The Crop Testing Program currently has 12 corn and 12 grain sorghum performance test sites across Texas, ranging from the valley to the panhandle, and west of San Antonio to Dallas. In addition, high plains sunflower, forage silage, and corn silage performance trials are also run through the Crop Testing Program.

Pietsch worked closely with faculty and Texas A&M AgriLife County Extension Agents across Texas for nearly 45 years. He has made many friends and influenced numerous careers. He will remain with Crop Testing on a part-time basis.

“I am so fortunate to have been able to work with Dennis these past years,” said research assistant Katrina Horn. “He has always loved to teach everyone that comes across his path about crops, agronomic practices, data collection, and of course, Aggie Football. He always pushed for a standard of excellence in everything Crop Testing does and constantly went that extra mile to accommodate producers, seed reps, and county agents.”



New cotton technologies offer opportunities but require management

By: Kay Ledbetter

Two new cotton technologies are exciting for producers, but come with warnings, according to a Texas A&M AgriLife Extension Service specialist. Dr. Emi Kimura, AgriLife Extension agronomist in Vernon, discussed the new cotton options at the Rolling Plains Summer Field Day recently in Chillicothe.



Chemical drift can damage cotton under these new technologies. (Texas A&M AgriLife photo by Kay Ledbetter)

“We are very excited to have these new technologies available to cotton producers in Texas,” Kimura said. “The pigweed has become an important problem in cotton. It is becoming more and more resistant to the existing herbicides and we needed some new herbicides for producers to take care of tough-to-control weeds such as herbicide-resistant pigweed. It finally happened in 2017.”

She said the two new technologies, XtendFlex cotton – a dicamba-tolerant cotton and Enlist cotton – a 2,4-D choline-tolerant cotton, are being tested in her variety trials to see how they perform in the Rolling Plains.

The important thing to note, and

something that has caused more than a few issues in this first year, is the herbicides listed for use on each of these varieties – XtendiMax, a dicamba product, for the XtendFlex cotton varieties, and Enlist Duo, 2,4-D choline herbicide, for Enlist cotton varieties – are very specific in their use and there is no cross-tolerance to each other, Kimura said.

“While they are excited about the technologies, there are things some producers did not understand, including that the two technologies are not cross-tolerant,” she said. “The Enlist Duo has a specific chemical which can be applied to control weeds over Enlist cotton varieties, but if they apply Enlist Duo to the XtendFlex varieties, it will kill them. The same thing with XtendiMax; if the products are applied on the Enlist varieties, it can kill all the cotton.

<https://www.youtube.com/watch?v=F4W0jm5ZaGA>

“They are not cross-tolerant, but some producers misunderstood that this first year,” Kimura said. “They thought they could be applied both ways, and that thinking can and has ended up in disaster here in the Rolling Plains. Some producers didn’t pay attention to the variety they planted and ended up toasting their cotton.”

Most of Rolling Plains cotton producers are using the dicamba-tolerant varieties, she said. However, cotton is more susceptible to the 2,4-D product than dicamba product, unlike

soybeans.

“It’s important to note that if your neighbor has the Enlist varieties and sprays 2,4-D choline or grass pasture and sprays a 2,4-D product, then it can be damaging to your crop if there is drift on your dicamba-tolerant cotton,” Kimura said.

Another warning she offered is: “If we don’t take care of these technologies, if we keep using them over and over, we will develop another herbicide-resistant weed in a relatively short time frame.”

She suggested producers make sure they start the season with clean fields and minimize the overuse of these chemicals do not over rely on a single mode of action in their weed management program.

“We always recommend producers rotate chemicals by the mode of action and do a good job before planting using yellow-herbicides and good in-season weed management,” Kimura said.

“These new technologies are not a perfect solution to weed control. If you don’t apply the chemicals when the weed is small enough, you won’t get good control. And, if you apply when the weeds are larger and do not get good kill, it can encourage the development of herbicide resistance.”

There are no new herbicide modes of action in the pipeline at this time, she said, so it is important not to overuse these new technologies in order to maintain their effectiveness for as long as possible.



More mature cover crops help maintain residue longer

By: Kay Ledbetter

Often producers planting cover crops are worried about moisture use, but more important is the longevity of the crop residue and its beneficial results, said a Texas A&M AgriLife Research scientist.

Dr. Paul DeLaune, an AgriLife Research environmental soil scientist at Vernon, said when he talks about the residue management of cover crops, one question he always gets concerns termination timing and the use of soil moisture by the cover crop.



Waiting to terminate a cover crop leaves lasting residue. (Texas A&M AgriLife photo by Kay Ledbetter)

Cover crops are designed to keep soil from blowing and improve soil quality. DeLaune has included Austrian winter field pea, hairy vetch, crimson clover, wheat, rye, turnips and radishes as cover crops in the various studies.

“We use neutron probes here to monitor soil moisture year-round, and yes, the cover crop does use soil moisture,” he said. “But one thing we’ve found is that soil moisture is quickly recharged and your crop is back to status quo if you get a rain between termination and the planting of your cotton.”

This information is based on eight different cover crop studies by AgriLife Research in the Rolling Plains where soil moisture is monitored throughout the year, some continuously since 2012, he said, discussing the studies at the recent Rolling Plains Summer Field Day in Chillicothe.

More important, he said, is the termination timing of that cover crop. In comparing two different termination timings utilizing a wheat cover crop, he said the duration of the residue is increased with the maturity of the wheat.

“I like to let it go ahead and mature out to about 50 percent heading or so, and then plant cotton four to six weeks after

termination,” DeLaune said. “This year, we had to terminate a little earlier due to a drift issue – mid-March versus toward the end of April.

“What we determined is if you terminate too early, you’re not going to have lasting residue. The residue in a vegetative stage degrades very rapidly. If you can allow wheat to reach heading, you can see lasting residue for about 18 months.”

So for those producers who are working with a cover crop, his advice is to consider delaying termination timing to ensure it results in lasting residue.

<https://www.youtube.com/watch?v=HpJCaBeRO1c&feature=youtu.be>

“Your soil moisture will be replenished, especially if it is on irrigated cotton, and it will pay off in the long term to build up your soil organic matter in your system,” DeLaune said. “It will cover your soil and protect your soil much longer.

“Although soil organic matter is slow to build up in our environments, we have seen more immediate impacts off cover crops on soil physical properties such as soil strength and infiltration,” he said. “Within the Rolling Plains, we have not observed depleted soil moisture behind cover crops during wheat and cotton growing seasons in dryland cropping systems.”



Early cover crop termination can result in residue that rapidly degrades or blows away. (Texas A&M AgriLife photo by Kay Ledbetter)

DeLaune said he understands there is greater risk in dryland systems and drier environments moving further west. However, Dr. Katie Lewis, AgriLife Research soil scientist at Lubbock, has noted the same trends in irrigated cotton systems at Lamesa.

Both locations will continue to evaluate cover crops, he said.

Wheat variety picks offered statewide by Texas A&M AgriLife

By: Kay Ledbetter

Each year, experts with the Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research jointly provide wheat producers across the High Plains their “Top Picks” list for varieties with the highest potential before planting time.

A Pick variety means this: “Given the data, these are the varieties we would choose to include and emphasize on our farm for wheat grain production in a particular region,” according to the Texas A&M AgriLife Extension Service specialists.



Wheat variety plots are harvested individually to provide yield performance data annually. (Texas A&M AgriLife photo by Kay Ledbetter)

The summaries are derived from wheat variety trials coordinated by the Texas A&M AgriLife wheat breeding program in Amarillo with funding provided by the Texas Wheat Producers Board.

Picks are based on yield performance and consistency from over 30 multiyear, multisite irrigated and dryland trials harvested in 2014-2017. Test sites range from Lamesa to Perryton and west to Clovis, New Mexico.

The experts also keep a two- and three-year “watch list.” Denali, a Colorado line, remains a variety of interest for the Texas Panhandle but not the South Plains.

“In general, the further south in the Texas High Plains we see Colorado lines – including Byrd and Avery – drop in performance potentially due

to hotter conditions,” said Dr. Calvin Trostle, AgriLife Extension agronomist in Lubbock.

There are no additions to the list for the 2017-2018 cropping season, but TAM 111 was removed as a limited irrigation and dryland Pick, and suggestions were made that producers in South Texas find an alternative to hard red winter wheat.

“It is important producers understand the basis for our decision,” said Dr. Jourdan Bell, AgriLife Extension agronomist in Amarillo. “Yes, TAM 111 remains by far the most widely planted variety in the Texas High Plains, but we are seeing increased inconsistency in performance. It is still outstanding in some cases, especially high-input systems with optimum fertility and fungicide management, but poor in others.

Dr. Clark Neely, AgriLife Extension state small grains specialist in College Station, said all Picks List and watch list varieties for hard red winter wheat, with the exception of TAM 401, were dropped in south Texas due to vernalization concerns.

“The past two winters have been extremely mild and many hard red winter wheat entries did not produce seed or were significantly delayed in maturity,” Neely said. “While many of the previous Picks list entries performed well under average or cooler-than-average winter temperatures, mild winters are common across South Texas and yield consistency is a concern for this region.”

As a result, he said, producers in that region are encouraged to consider the hard red spring wheat options available, which are not affected by vernalization.

Neely also noted that while the Picks list is based on grain production systems, there are also good choices for

dual purpose and grazing wheats. TAM 204, TAM 401 and Razor are beardless wheats that don’t always make grain-only standards, but they all produce excellent forage.



Wheat variety trials similar to this one are grown around the state by Texas A&M AgriLife Research breeders.

(Texas A&M AgriLife photo by Kay Ledbetter)

Bell said while producers might have a variety they prefer that is suited to their growing conditions, they are encouraged to include a Pick.

“Perhaps a Pick variety with a specific disease package or maturity that contrasts with your current variety would be a good complement to your overall program,” Bell said.

Growing conditions affect yields each year and 2017 was no exception, reflected by a wide range of wheat production with some dryland yields exceeding 70 bushels per acre with typical yields in the 40 bushels per acre range.

“There can be good and bad years where a single variety might suffer or excel, but by taking the long-term look at them and over multiple locations, we can better identify those that will have a more consistent performance,” said Dr. Jackie Rudd, AgriLife Research wheat breeder in Amarillo.

The full list of Picks across the state and performance data can be found at <http://varietytesting.tamu.edu/wheat/>.

Expert says wait until cotton flowering stage to irrigate

Story and photo by Kay Ledbetter

Almost five years of data indicate producers can save as much as 40 percent of their water on a cotton crop by better timing their irrigation, according to a Texas A&M AgriLife Research scientist.



The bottom forefront shows irrigation after flowering compared to the top portion where early water promoted more plant growth but not necessarily greater yields.

Dr. Paul DeLaune, an AgriLife Research environmental soil scientist at Vernon, has conducted long-term conservation tillage and irrigation studies at the AgriLife Research-Chillicothe station since 2008.

He discussed these studies during the Rolling Plains Summer Field Day Aug. 30 in Chillicothe.

The tillage treatments included four treatments: conventional tillage, strip tillage, no-till and no-till with a

terminated wheat cover crop. In the last five years, DeLaune also began looking at irrigation timing and amounts to determine: “Should we start watering soon after planting, or should we wait until a critical growth stage?”

He said with the growing concern over declining water resources and availability and competing water users, it is critical to determine the best time to apply that water, especially in areas of a declining aquifer.

The study compared early season irrigation, starting with 0.2 inch per day applied beginning after planting when the stand is established and continuing on, to waiting until the crop reached a critical growing stage – in this case flowering. The two treatments tested after flowering were 0.2 inch per day after flowering and 0.25 inch per day after.

These all provided a nice range of low, medium and high irrigation regimes, he said.

“What we’ve found over the last five years is the early irrigation, the banking of water, is not paying off and is a waste of water resources that has

not shown up in improved yields or increased soil water profile,” DeLaune said.

He said Jim Bordovsky, AgriLife Research senior research scientist and engineer, Lubbock/Halfway, has observed similar results at Halfway and has conducted more extensive research dealing with irrigation rates and timings.

“On a four-year average, the high irrigation treatment has resulted in 27 percent more water use compared to the medium treatment and 42 percent more water use compared to the low treatment,” he said. “Yet, we have observed no statistical differences in lint yields among irrigation treatments, with yields within 10 percent of each other among treatments.”

Additionally, he said, they have noticed more water is conserved, and fields have higher irrigation water-use efficiencies under no-tillage and no-till with a cover crop regime.

“Our yields over a four-year average have been statistically higher for those no-till systems than both strip tillage and conventional tillage, at least 9 percent higher,” DeLaune said.

“So combining conservation tillage with proper irrigation management and timing can conserve water resources and improve your yields and economic returns.”

AggieTurf



The Aggie Turf Club kicked off their 2017-18 year September 14.

This club is intended to broaden student awareness and knowledge of the turfgrass industry, provide professional development and networking opportunities for students and to provide information and awareness of internships and employment opportunities.

This semester, students will be presenting on their summer internships.

Meetings will be held every other Tuesday from 11:30 - 1:00 in Heep 440.

Students of all majors are invited to attend.

Ranch Management University scheduled for October

By: Kay Ledbetter

From soil management to cattle, forage and wildlife, the Texas A&M AgriLife Extension Service Ranch Management University Oct. 9-13 in College Station will offer a little something for everyone, according to coordinators. The workshop will meet at the G. Rollie



Dr. Jake Mowrer explains soil types and hand-texturing of soils to the 2016 participants. Photo by Beth Ann Luedeker

White Visitor Center, 7707 Raymond Stotzer Parkway on the Texas A&M University campus, said Dr. Larry Redmon, Texas A&M University soil and crop sciences associate department head and AgriLife Extension program leader, College Station.

Registration is \$500, with attendance limited to the first 50 who enroll. To register online and for more information,

go to <http://agriliferegister.tamu.edu> and enter “ranch management” into the search window.

The five-day event is designed to help new and novice landowners improve their understanding of resource management on their ranch properties, Redmon said.

He said topics to be covered include soil fertility and sampling; hay production, sampling and sprayer calibration; financial considerations and government programs; forage legume management and winter pasture establishment and utilization; beef nutrition requirements and supplements, body condition scores, stocking rates, marketing and genetic strategies for livestock; pond and wildlife management; horse production; and chute-side live-animal handling demonstrations.

Also, Redmon said, an entire day will be devoted to wildlife management, including using wildlife for agricultural property tax purposes. Some of the species to be covered include turkey, feral hogs, dove, white-tailed deer and bobwhite quail. The day will include farm pond management and a farm

pond visit.

Speakers will be from Texas A&M University’s departments of soil and crop sciences, wildlife and fisheries, animal science and ag economics.

Meals and break refreshments will be provided. A resource flash drive containing over 100 publications covering ranch resource management will also be provided.

For additional information, contact Redmon at 979-845-4826 or l-redmon@tamu.edu or Linda Francis at l-francis@tamu.edu or 979-845-2425



Dr. Larry Redmon demonstrates sprayer calibration at the spring 2017 RMU. Daily demonstrations get the participants out of the classroom and give them an opportunity to get some hands-on learning. Photo by Beth Ann Luedeker

Small Grain Workers Meet in Amarillo



Faculty, staff and students involved with wheat and other small grains met in Amarillo in August to discuss research and issues impacting small grains.

The Small Grains Workers held their annual summer meeting at the Texas A&M AgriLife Research and Extension Center in Amarillo on August 10 and 11. Approximately 45 faculty, staff and students were in attendance.

This meeting is designed to facilitate collaboration and networking among Texas A&M AgriLife research and extension personnel involved with wheat and other small grains, as well as to provide an update on the research going on around the state in these crops.

21 speakers presented on topics ranging from genetics and breeding to fertility, variety trials and use of unmanned aerial vehicles to predict crop performance. Department Head, Dr. David Baltensperger, along with the new director of the Amarillo Center, Brent Auvermann, welcomed everyone to the meeting and provided a brief wheat strategic plan overview to start off the meeting.

Rodney Mosier, Executive Vice President of the Texas Wheat Producers Board (TWPB), gave the TWPB update and a state crop report for the 2017 season. Overall, planted wheat acres were down 6% from 2016 to 4.7 million acres.

The TWBP provides much of the funding for the wheat projects that were discussed at the meeting and sponsored lunch for the group.

Wheat acres likely to remain static or decrease slightly

By: Adam Russell

Low wheat prices likely mean planted acreage around the state will remain static or drop slightly, said a Texas A&M AgriLife Extension Service specialist.

Dr. Clark Neely, AgriLife Extension state small grains specialist in College Station, said wheat producers globally were expected to provide an overabundance of the commodity, which should keep prices low for the foreseeable future.



Grazing cattle on wheat could be an increasingly popular option for producers as wheat prices remain low. (Texas A&M AgriLife photo by Kay Ledbetter)

“It’s tough to make money in wheat right now,” Neely said. “Until someone has a natural disaster or the other producing regions of the world begin cutting back acreage, it’s likely that we won’t see prices improve.”

Texas producers planted 4.7 million acres of wheat for grain production and grazing last year, Neely said. It was the lowest planted acreage for the state since 1973.

In 2017, U.S. wheat producers were on track to plant the fewest acres since the U.S. Department of Agriculture began keeping records in 1919, he said. Meanwhile, Russia, the second-largest wheat producing region of the world, is anticipating excess wheat production.

The price of cash wheat in Texas remains around \$3.71 per bushel compared to \$6-\$7 per bushel in 2014, Neely said. He suspects some producers will forgo planting acres because the break-even price is around \$5-\$5.50 per bushel.

In some cases, producers may try to cut back on input costs to make the crop pencil out,” he said. “We’ve

already seen a significant migration of wheat acres over to cotton. In other cases, delayed cotton planting could mean producers may fail to have enough time to transition from cotton to wheat in the fall.

Neely said most of the state is reporting good subsoil moisture, and producers in the Rolling and High Plains regions are hoping for rain to improve topsoil conditions before planting acres for grazing.

Producers should be preparing to plant or already planting wheat for grazing, he said. Grain wheat planting should get underway in the High Plains by mid-October and wind up in South Texas by mid-December.

“They’re just getting started in the High Plains, and most of the state has good, deep soil moisture,” he said. “They just need a little rain to get the plants up and going in dryland fields.”

How producers utilize wheat amid low prices will depend on the weather and operational margins, he said.

“Planting for fall grazing is often opportunistic,” he said. “If there is moisture in the next 10 days, you’ll see more acres planted for fall grazing. Harvested acres depends on conditions as well. If there’s a dry spring, you may see more acres grazed out rather than taken to grain if producers feel grain yield potentials are low. In some cases, producers will plant winter wheat for the sole purpose of a cover crop in a cotton rotation.”

Neely said producers’ decision to cut back on input costs could penalize them at the market. Last year, some producers were docked for low protein content as a result of inadequate fertilization and average or above-average yields from favorable rainfall.

Above-average summer rains in the High Plains could mean additional weed problems for wheat producers, Neely said.

“Not only does this add to input costs with additional tillage or herbicide, but producers should watch out for volunteer wheat,” he said. “Wheat streak mosaic virus was a problem last year in the region and could be an issue again if volunteer wheat isn’t controlled in order to break the green-bridge effect. In addition to cultivation and applying herbicides effectively, producers may want to consider planting a resistant variety to deal with this disease.”

Calendar

September

- 15 - Wildlife, Fisheries and Ecological Sciences Building Grand Opening
- 20 - Dean's Outstanding Achievement Awards - AgriLife Center, College Station
- 26 - Texas Well Owner Network Training - New Braunfels Contact: [Drew Gholson](#) or [TWON](#)

October

- 2-3 - Bennett Trust Women's Conference, Fredericksburg Contact: [Larry Redmon](#)
- 5-6 - Surface Mine Reclamation Workshop, College Station Contact: [Sam Feagley](#)
- 9 - FAC Meeting
- 9-13 - Ranch Management University - College Station Contact: [Larry Redmon](#)
- 11 - Turfgrass Field Day - College Station Contact: [Ben Wherley](#)
- 11-13 Texas Section Society for Range Management Annual Meeting - San Angelo
- 18-20 - 2017 Borlaug Dialog International Symposium - World Food Prize
- 22-23 - Turf Producers of Texas Fishing Tournament
- 22-25 - Annual Meeting ASA, CSSA, SSSA - Tampa, FL
- 25-27 - CAST Board Meeting - Raleigh, NC
- 27 - Department Chili Cook-off - charity fundraiser
- 28 - College of Agriculture and Life Sciences Tailgate, AGLS Complex

November

- 10 - Legacy and Leadership Banquet, Brazos County Expo Complex
- 23-24 - Thanksgiving Holiday
- 27-28 - Amarillo Farm and Ranch Tour
- 29- Dec.1 - Cotton - Texas State Support Committee Meeting

Save the Date

- December 5-6 - Texas Plant Protection Conference - Bryan-College Station
- December 5-7 - Texas Turfgrass Annual Conference and Show - Arlington
- December 23 - Jan 2, 2018 - University closed for Holidays