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Comments from our Department Head

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Snow and freezing temperatures made it feel like December in College Station. It was beginning to look a lot like winter, even though it lasted only a day or two.

We are looking forward to a break as the 2017 winds down. The office will close at noon December 22 and remain closed through January 1, 2018, giving faculty and staff an opportunity to rest and relax before beginning a new year. We are all looking forward to having an opportunity to spend time with friends and family and maybe put our feet up for a while.

We have 32 Soil and Crop students receiving degrees this week, with six more earning minors in Agronomy. Perhaps even more exciting, most of those graduating have already accepted positions in industry, or have been accepted into advanced degree programs. We will be having a luncheon for those students and their guests prior to commencement this Friday. Congratulations to all who are graduating. We wish you the best of luck. Please keep in touch. We would love to hear about your accomplishments and career advancements.

The Texas Plant Protection Association held its annual meeting in College Station recently. Many of our students and faculty submitted research posters and made presentations. Congratulations to those who earned awards at that meeting. (see article inside).

I had the opportunity to attend the Council of Science Society Presidents board meeting this month, as well as the Amarillo Farm and Ranch Show, Texas State Support Committee and Texas Cotton Producers. The department was also represented at the Texas Turfgrass Association winter conference.

The end of the year will also be marking the end of an era in the western region of our state as Marvin Ensor will be retiring after 37 years of service (see article on page 12). Marvin is currently the ag and natural resources regional program leader for that region. He will be succeeded by Robert Pritz, currently an Extension agent in Taylor County.

Things start rolling again rather quickly after the holidays. Beltwide Cotton Conference will be held in San Antonio January 3-5 and the following week we have an opportunity to recognize our faculty and staff with the presentations of the Vice Chancellor’s Awards in Excellence and the Extension Superior Service Awards.

We thank you all for your support through the past year and look forward to continuing collaborations in 2018.

I wish you all a great holiday season!

You can support Soil and Crop Sciences research, teaching and extension outreach with your tax-deductible donations.

More Information can be found at http://soilcrop.tamu.edu/giving/
You and your guest are invited to an Open House at the home of Dr. and Mrs. David Baltensperger

Sunday, December 17  2:30 to 5:30 p.m.

4707 Scrimshaw Lane,
College Station, Texas
In Nantucket - off Hwy 6 south of William D. Fitch

an RSVP is appreciated
(979) 845-3041

Wishing you a Joyous Holiday Season and a New Year filled with Peace and Happiness

David Baltensperger

Department of Soil and Crop Sciences
Members of the Texas Plant Protection Association held their 29th annual conference at the Brazos Center in Bryan December 6 and 7. The non-profit organization is comprised leaders in agribusiness, agriculture research, extension and education, and agriculture regulatory agencies.

Attendees heard presentations on all aspects of agriculture, from ag credit to management technologies to the U.S. Farm Bill and more.

“We have been talking about stewardship this year, not only stewardship of the land but also stewardship of the herbicide technology we are working with,” said Dr. Peter Dotray, Texas A&M AgriLife Extension Weed Specialist with the TAMU and Texas Tech University, during his discussion on current cotton technologies. “There are big rewards with new tech, but there are also risks of over use and misuse. We need to be mindful as we make applications.”

“It is important to move toward a better understanding of the plants we are trying to control,” Dotray said. “Muthu [Dr. Muthu Bagavathiannan] in College Station has provided a lot information and many others have contributed but there is much more to do.”

“We are at a crossroads,” he said. “We have had pretty good results but it is important to be on the same page, to know the proper herbicide for the weed pest we are targeting, proper nozzel size and application rates, so the technology we are trying to steward will be here beyond the current season.”

A poster contest was held in conjunction with the meeting, which drew more than 30 entries. In the doctoral student contest Pramod Pokhrel, who is working on his PhD in Agronomy under Dr. Nithya Rajan, placed first. Seth Abugho, who is working in Weed Science under Dr. Muthu Bagavathiannan, placed second, and Mahendra Bhandri, who is studying Agronomy under Dr. Qingwu Xu and Dr. Amir Ibrahim, placing third.

The Master Student Poster contest was won by Sadie Church, a student of Dr. Ronnie Schnell.

Dr. Betsy Pierson received the Academic/Agency Award; Dr. Ron Lacewell received the Ray Smith Leadership award and Ron Smith of Southwest Farm Press received the Norman Borlaug Lifetime.

Industry Awards were presented to Ronnie Phillips of Phillips Ag Consulting and Research, and Tony Driver of Syngenta.
Texas A&M AgriLife Research is investing in the future of rapid crop design with improved traits through the deployment of two new labs and a half-million dollar seed grant program to jump-start the process.

“We are pleased to announce a new funding opportunity that focuses on building a pipeline for genome editing in agriculturally important crops in Texas and beyond,” said Dr. Bill McCutchen, executive associate director of AgriLife Research, College Station.

“The recent development of the Crop Genome Editing Lab and the MultiCrop Transformation Lab, coupled with the existing capabilities of the Genomics and Bioinformatics Service Lab, uniquely positions us to research and discover novel methods and solutions for important traits across multiple crops,” McCutchen said.

Together, these research and service labs, combined with one of the largest agriculture-focused sequencing facilities in the world, can now provide a complete plant genome editing pipeline for crop improvement, said Dr. Charlie Johnson, director of the Genomics and Bioinformatics Service Lab, College Station.

The Crop Genome Editing Lab is led by Dr. Michael Thomson, Texas A&M University professor in the Department of Soil and Crop Sciences, and HM Beachell Rice Chair with AgriLife Research, while the MultiCrop Transformation Lab is directed by research specialists Marco and Mayra Molina.

“We believe our 25-plus years combined experience working on plant biotechnology, either on academia or industry will fully support AgriLife’s initiative of building this pipeline aimed at successful plant transformation of major commercial crops and overcoming challenges such as stable transformation and plant regeneration,” the Molina’s said in a joint statement.

Some of the newest capabilities include genomics analysis for single guide RNA design, Cas9/sgRNA construct development, biolistic or Agrobacterium-based transformation, plant regeneration and confirmation of gene-edited progeny.

Thomson said by working with individual research and breeding groups, their combined expertise can help jump-start genome editing activities for crop improvement.

The seed grant program will fund approximately 20 projects focused on a specific crop, trait and target gene or genes, with each project allowed to request up to $30,000 in service credits for the entire project, he said.

The seed grant program aims to link investigators with this integrated genome-editing pipeline to test genome editing approaches for their target crop and trait.

“We are now utilizing CRISPR/Cas9 genome editing, which has transformed research approaches across a wide range of fields,” Thomson said. “This method presents an unprecedented opportunity to rapidly deploy beneficial traits in major crops, thus cutting time off the long breeding process.”

While genome editing offers tremendous promise, Thomson said there are still a number of challenges to be tackled before the technology becomes routinely used for crop improvement.

Some of the issues for researchers will be:
– Knowing the gene or genes underlying the trait of interest.
– Targeting multigene families or genes in polyploid species.
– Moving beyond simple knock-outs to implement precise base edits and allele replacements.
– Avoiding off-target effects.
– Overcoming genotype-specific transformation.
– Regeneration constraints.
– Efficiently selecting progeny with the desired edits.

“We have this technology and we are open for business,” Johnson said. “This is part of AgriLife Research’s continued investment into agriculture and life science platforms and providing the latest technology and corresponding seed grants to our faculty.”
Congratulations
To all our graduate students who are receiving an advanced degree this month!

Agronomy

Yu-Ming Lin
Yu-Ming is receiving his Master of Science in Agronomy under the supervision of Dr. David Stelly.
He is originally from Taiwan (R.O.C.) and came to A&M after earning his Bachelor of Science in Agriculture Science at the National Taiwan University.
Yu-Ming plans to pursue a Ph.D.

Clay Lewis
Clay is receiving his Master of Science in Agronomy, earned under the supervision of Dr. Frank Hons.
He will be returning to his farming operation in Brownfield, Texas, and will also continue to be involved on his family farm operation.

Biotechnology

Bree Vculek
Bree is receiving her Master of Science in Biotechnology, earned under the supervision of Dr. David Stelly.
Originally from Oakes, North Dakota, she received her Bachelor of the Arts in Biology from St. Catherine University.
Bree has accepted a position as a congressional aide in the House of Representatives in Washington D.C. where she will provide scientific advising.

Food Sciences & Technology

Derrick Amoako
Derrick received his Ph.D. in Food Science and Technology under the supervision of Dr. Joseph Awika.
He is a native of Accra, Ghana, and earned his Bachelor of Science in Nutrition and Food Science at the University of Ghana.
Derrick has accepted a job with Pepsico Research and Development Center in Dallas, a division of Frito Lay. He is working as a Senior R&D Scientist.
Genetics

Nancy Wahl
Nancy is receiving her Ph.D in Genetics, earned under the supervision of Dr. Seth Murray.
A native of Yonkers, New York, Nancy earned her Master of Science in Human Genetics in 2013.
She is currently working as a Co-op in soybean breeding with Monsanto and looking for a position in industry or as a post-doc in plant breeding or a related field.

Plant Breeding

Heather Elkins Flippin
Heather is graduating from the SCSC Distance Education program with a Master of Science in Plant Breeding, earned under the supervision of Dr. Wayne Smith and Dr. Jane Dever.
She is originally from Lubbock, Texas, and is currently employed as a Research Assistant at the TAMU AgriLife Research and Extension Center in Lubbock.

Charlotte Barnhart-Gilbert
Charlotte is graduating from the SCSC Distance Education program with a Master of Science Non-Theses option in Plant Breeding, earned under the supervision of Dr. Scott Finlayson.
She is currently an AP Biology & Environmental Science teacher at Texas City High School.
Charlotte is contemplating returning to A&M to pursue a Ph.D. after her daughter is grown.

Runshi Xie
Runshi has earned his Master of Science in Plant Breeding under the supervision of Dr. Russell Jessup and Dr. Ben Wherley.
A native of Quanzhou, Fujian, China, he received his Bachelor of Science in Landscape Architecture at the Fujian Agriculture and Forestry University.
Runshi will be returning to TAMU next semester to begin working on his PhD.
Plant Breeding

Francisco Gomez
Francisco has earned his Ph.D. in Plant Breeding under the supervision of Dr. William Rooney.

He was raised in the Yuguare Valley, Francisco Morazán, Honduras, and received his Bachelor of Science in Agriculture Operation and Management from the University of Florida.

Francisco has been offered two postdoctoral positions, at the University of Nebraska and the University of Wisconsin, and has an upcoming interview for a postdoctoral position with the USDA/ARS at North Carolina State University.

Lloyd Mbulwe
Lloyd earned his Ph.D. in Plant Breeding under the supervision of Dr. William Rooney.

Originally from Lusaka, Zambia, he received his Master of Science in Plant Genetic Manipulation from the University of Nottingham.

Lloyd has accepted a position as a plant breeder in a sorghum and millet improvement program.

Brian Pfeiffer
Brian is receiving his Ph.D. in Plant Breeding under the supervision of Dr. William Rooney.

Originally from Dawson, IL, he earned his Master of Science in Plant Breeding from TAMU in 2014.

Brian has accepted a position as a sorghum breeder for Innovative Seed Solutions LLC, in Bishop, TX.

Vishal Saitwal
Vishal is receiving his Ph.D. in Plant Breeding as part of the SCSC Distance Education program, earned under the supervision of Dr. Wayne Smith and Dr. Tabare Abadie with DuPont Pioneer.

Originally from Hyderabad, India, he received his Master of Science in Cytogenetics and Plant Breeding in 2002.

Vishal has already started working for DuPont Pioneer as a molecular breeder in corn.
Yong Wang

Yong earned his Ph.D. in Soil Science under the supervision of Dr. Fougen Dou and Dr. Frank Hons. Originally from Zhejiang, China, he received his Master of Science in Soil Science from Northwest A&F University in China. Yong has accepted a postdoctorate position at the University of Wisconsin, Madison.

Luke Morgan

Luke earned his Ph.D. in Soil Science under the supervision of Dr. Youjun Deng. He was raised in Pekin, IL, and earned his Bachelor of the Arts in Biochemistry from Monmouth College in Monmouth, IL, and his Master of Science in Chemistry from Western Illinois University. Luke has already begun working as a forensic chemist for SET Environmental in Chicago.

Students earning a Bachelor of Science from the Department of Soil and Crop Sciences - December 2017

David Bryant
PSSC - Crops emphasis

Cody Carpenter
double major PSSC and Ag Economics

Colton Conrad
Turfgrass Science

Janae Dinkins
double major PSSC and Wildlife &Fisheries Science

Jowell Dupree
Turfgrass Science

Shirley Engelke
PSSC - Soil & Water emphasis

Jordan Garibay
PSSC - Crops emphasis

Elba Maldonado
PSSC - Soil & Water emphasis

Rogelio Garcia-Moreno
PSSC - Crops emphasis

Julion Hernandez
PSSC - Crops emphasis

Ryan Janda
PSSC - Crops emphasis

William Peebles
PSSC - Crops emphasis

Jose L. Polanco Jr.
Turfgrass Science

Jonathan Prieto
PSSC - Crops emphasis with a minor in Horticulture

Corey Ring
PSSC - Crops emphasis

Omar Salem
PSSC - Crops emphasis

Taylor Thate
PSSC - Crops emphasis

Matthew Wiethorn
PSSC - Crops Emphasis with a minor in Plant Breeding

*PSSC - Plant and Environmental Soil Science
Welcome!!

Students graduating with Minors in Agronomy

Quincy Jo Barton  
Bachelor of Science  
Ag Leadership and Development

Rider Combs  
Bachelor of Science  
Rangeland Ecology & Mgmt.

Colton Brown  
Bachelor of Science  
Horticulture

Kent McLeRoy  
Bachelor of Science  
Agriculture Economics

Robert Murphy  
Bachelor of Science  
Ag Leadership and Development

Mark Schoenike  
Bachelor of Science  
Economics

It’s a Boy!

A belated welcome to Liam Foster, who joined the extended Soil and Crop Sciences family August 30th.

Liam is the son of Dr. Jamie Foster Malone and her husband, Frank. Jamie is an Associate Professor of forage agronomy at the AgriLife Research and Extension Center in Beeville.

Congratulations to Dr. Nithya Rajan, who was recently elected as the Secretary/Treasurer for the southern branch of the Agronomy Society of America.

Her term will begin at the conclusion of the meetings in February.
The Texas Department of Agriculture will require special training in 2018 for new auxin herbicides applied under a Section 3 approval on dicamba-tolerant and 2,4-D-tolerant cotton.

To meet this requirement, the Texas A&M AgriLife Extension Service in Amarillo will host three trainings – Jan. 12, Feb. 9 and March 9 – at the Texas A&M AgriLife Research and Extension Center, 6500 W. Amarillo Blvd., Amarillo.

The programs will each be from 8:30-9:30 a.m. There will be no registration fee. Each class will provide one TDA continuing education unit on laws and regulations.

“TDA is requiring auxin-specific herbicide training for those using the new formulations of dicamba (Xtendimax, FeXapan and Engenia),” said Dr. Jourdan Bell, AgriLife Extension agronomist, Amarillo. “The auxin training is required for all applicators including licensed applicators and unlicensed applicators who spray under a licensed applicator.”

Xtendimax, FeXapan and Engenia were approved for use in XtendFlex, the dicamba-tolerant cotton from Monsanto. Training is not required for the use of Enlist, the new 2,4-D tolerant cotton from Dow AgroSciences.

However, Bell said, the information provided will still be applicable for producers planning to use Enlist technology.

Enlist is included in several varieties in the PhytoGen Cottonseed company brand while XtendFlex is in several varieties from Deltapine, Americot/NexGen, All-Tex/Dyna-Gro and CROPLAN Genetics brands.

She said the training is not required for old formulations such as Weedmaster, Clarity or Banvel.

AgriLife Extension county agents will be trained so they can also provide training in their counties, but all are welcome at the trainings in Amarillo, Bell said.

“Last year there were issues in other cotton-growing regions,” Bell said. “Fortunately, there were very few issues reported in Texas. As we plan for our 2018 cotton crop, we want to be proactive and promote stewardship of the new dicamba formulations so we can maintain the technology in Texas.”

Bell said when the Environmental Protection Agency approved the registration for XtendiMax, FeXapan and Engenia, it was a two-year conditional registration.

More information about the requirements from TDA can be found at https://agrilife.org/texasrowcrops/current-news/.
What if understanding the soil and grass in residential lawns could help with water quality and reducing runoff? The Healthy Lawns and Healthy Waters Program is doing just that by helping Texas homeowners make better management decisions that will have a lasting impact on watersheds.

The educational training program, developed by the Texas A&M AgriLife Extension Service in the Department of Soil and Crop Sciences and the Texas Water Resources Institute, focuses on management decisions such as the type of turf best suited for the area, how to best manage irrigation and how to correctly apply fertilizer.

Dr. Benjamin Wherley, Texas A&M University associate professor in soil and crop sciences, said lawns serve more than just an aesthetic appeal to homes. They help with erosion control, landscape and bank stabilization, cooling the atmosphere and — one of the biggest functions — they serve as biological filters.

"Lawns serve a very important functional role, but we don’t want to mismanage it,” Wherley said. “That is where the educational part comes in.”

Wherley said the program opens the eyes of homeowners by showing them the environmental impact of their choices of turf, management practices and soil on runoff.

“If you go out and ask homeowners, ‘where does the runoff from your lawn go?’ I don’t think many of them even think about that,” he said.

John Smith, AgriLife Extension program specialist in soil and crop sciences, said the program is targeting areas where water resources are dwindling.

“We are carrying the program into watershed areas where water is precious,” Smith said.

Smith said by going to these areas, homeowners can learn how to capture part of the stormwater into rainwater harvesting tanks. Rainwater can then be used as needed to provide irrigation directly to landscape, which increases efficiency.

Rainwater harvesting system

Healthy Lawns and Healthy Waters is currently focusing on five pilot watersheds including the following areas: Seguin, Boerne, Wimberley, Lockhart, San Antonio and Kyle.

Reagan Hejl, AgriLife research associate in soil and crop sciences, said the programs are customized to each watershed by selecting proper turf species for the particular area.

Hejl said starting with the best adaptive species to the area allows the homeowner to have a green lush lawn without over applying resources.

“A healthy, green lawn does not necessarily require a lot of water and nutrients,” Hejl said. “There are ways to have that green lawn without having to use excessive fertilizer nutrients and water.”

A unique aspect of the Healthy Lawns and Healthy Waters program that most people do not know about is the free soil testing offered.

Smith and Hejl said most residents overlook having their soil tested, but the test can provide in-depth information about the homeowner’s lawn and specific nutrient needs or pH issues.

“We can go look at a lawn and try to figure out what issues they are having, but without a soil test, there are a lot of things we can’t see by just looking at it,” Hejl said.

Dr. Diane Boellstorff, associate professor in soil and crop sciences and AgriLife Extension water resources specialist, said the two most frequent causes of water quality impairment in Texas are high concentrations of E. coli bacteria and excess nutrients. Healthy Lawns and Healthy Waters aims to provide the best management practices that address both of those impairments, Boellstorff said.

Boellstorff and Hejl said the program develops relationships with homeowners that will last even after the event is over, making it easier for homeowners to find expert advice when they need it.

Healthy Lawns and Healthy Waters provides information and access to resources that can be used for better management of lawns throughout Texas. For more information about the program and upcoming workshops, visit its website. To request a workshop, email hlhw@tamu.edu.

This article was originally published on the Texas Water Resources Institute website - http://twri.tamu.edu
Many producers aren’t seeing it...

It’s all about what’s underground

The era of remote sensing, aerial drones, satellite imaging and GPS/GIS has most producers focusing on the visible issues present in their fields. The soil health movement is attempting to increase the awareness of the functions of soil and how to enhance or maintain our nation’s most critical natural resource. Whether it’s Texas or the central corn-belt, the root of most problems (pun intended) is actually roots, or lack of.

The yield potential of all agricultural crops can be traced back to the soil. Soil conditions that limit root development and proliferation throughout the topsoil and subsoil, ultimately limit the yield and long-term sustainability of the field. Sadly, our ability to access rooting development has remained nearly static for the past fifty years, despite ongoing research on in-field root development.

In Texas, the root limiting conditions that many of our agricultural crops experience can often be boiled down to one of four issues: compaction, acidity, salinity and limited soil nutrients.

Soil compaction is likely the single most limiting, yet under-appreciated yield robbing soil problem facing Texas producers. Soil compaction or densification can be caused by tillage and vehicle traffic on moist to wet soils, loss of rooting development due to low phosphorus and/or low general soil fertility, low pH, high sodium and/or high soil salinity.

As root proliferation declines the soil, specifically the non-tillage subsoil, slowly increases in density. Under ideal growing conditions, the constant turnover of root system regenerates the macro-pores in the soil, and helps maintain natural soil aggregation through the plant/microbiological relationships. The decomposing root systems create soil voids, macro-pores, allowing for rapid exchanges of gases and movement of water, as well as providing conduit for future root development. Without the macro-pores, poor oxygenation of the root system often occurs.

Key strategies toward avoiding compaction are to: 1) reduce axle loads when-ever possible, 2) avoid tillage or movement of equipment when soils are moist or wet on the surface and deeper in the profile, 3) Use controlled wheel tracks, thus limiting the overall percent of the field that large axle/wheel loads impact and 4) insure other soil fertility related limitations are resolved.

The tillage and wheel traffic on moist and wet soils is often the more immediate and most obvious form of compaction. This wheel traffic compaction is often associated with shorter plants nearby and also immediate ponding during rainfall events.

Remediation of compaction can be difficult, expensive and may require years of careful attention to a given field or area within a field.

The first step in remediation is to determine where and to what extent a field is compacted. While yield monitors and visual observations can provide some insight into potential areas of compaction, a simple soil probe used in the process of collecting soil samples can quickly be used to evaluate ease of penetration, depth of hardness layers and changes between areas of the field. When compacted areas are noted, longer soil probes or soil penetronometers can be utilized to evaluate the depth of compaction.

Most compaction problems can only be reduced by mechanical means, including deep ripping, chiseling or other fracturing of the soil when dry. Another approach is to plant a taproot type of cover crop such as sweet clover. Select legumes, including sweet clover, are uniquely adapted to penetrate through compacted layers, although this may require multiple plantings.

Non-optimal soil fertility is also to blame for poor rooting of annual and perennial crops. Over the past twenty years, the percentage of soil samples with limited phosphorus or potassium has risen significantly. Additionally, a significant increase in the acreage of acidic soils has been observed throughout the central and northern Blacklands.

Careful attention to timely soil testing can easily identify hidden soil fertility issues, as well as, locate those compacted areas within a given field. More information on soil testing can be found at The Texas A&M AgriLife Extension Soil, Water and Forage Testing Laboratory (soiltesting.tamu.edu).

Soil compaction led to poor root development and stunted growth in a central Texas corn field.
Organic grain, soybean study establishes early production recommendations

By: Kay Ledbetter

After one year of studying organic grain and soybean cropping systems, Texas A&M AgriLife scientists say they know more about what not to do moving forward.

The project leaders are Dr. Nithya Rajan, a Texas A&M AgriLife Research crop physiologist; Dr. Muthu Bagavathiannan, AgriLife Research weed scientist; and Dr. Ronnie Schnell, Texas A&M AgriLife Extension Service cropping systems specialist – all in the Texas A&M department of soil and crop sciences in College Station.

Year one, they said, was a learning year, as there is very little information about organic farming in Texas both for researchers and producers.

“Producers in Texas interested in organic farming have limited information on best management practices, especially for large-scale grain production,” Rajan said. “Our goal is to identify organic cropping systems and management techniques for successful production of organic grain crops in Texas.”

Rajan said they will first identify species of cover crops and planting regimens. Other goals with this study include a greater understanding of the influence of organic management practices on nutrient cycling, greenhouse gas emissions, weed population dynamics, water-yield relations and soil health.

“We knew there would be challenges meeting the nutritional needs of the crop due to restrictions on nutrient sources in organic systems,” Schnell said. “We had a plan to use legume cover crops as a nitrogen source, but we struggled to get good production from these, and that snowballed into more problems.”

He said the timing of cover crop plantings was not optimum, and some of the cover crop species selected were not adapted to the production systems in the region.

“Cereal rye is not ideal for our systems here in Texas,” Schnell said. “When it began to grow and put on biomass, it was too late to plant grain crops and the ability to mechanically terminate the crop was reduced.

“We typically plant corn near the first of March, and sorghum and soybeans in late March. The rye didn’t mature until April, which ended up being competitive with the grain crops and became more like a weed.”

Hairy vetch also didn’t produce a lot of biomass on a timely basis, he said.

“We are going to try a spring wheat instead of cereal rye,” he said. “We are fall planting it in hopes that it will be nearing maturity when we need it, late winter, so we can successfully terminate it.

“We need a dense, mature biomass from cover crops to plant into during the spring,” Schnell said. “The cover crop biomass should compete with early season weeds, but not be actively growing at that point so that it doesn’t compete with the corn, sorghum and soybeans.”

Rajan said the trio of scientists recently has also been awarded a USDA Sustainable Agriculture and Research Education grant on organic systems to specifically look at cover crops better adapted to Texas’ planting schedule.

“The other big learning experience of the first year of study is that since weed control is a problem, particularly in the no-till systems, it is important to consider some kind of minimal tillage as needed,” Bagavathiannan said.

Rajan said this study is designed to answer questions about organic practices and provide growers more information about what is normal and help them be more successful as they transition from traditional farming to organic systems.

She said there are organic feed mills that will provide good demand and a market for the crops once they are raised, so that is not the primary concern. Raising the crops successfully and understanding the best management practices are the limiting factors at this time.

“We hope with strategic management, we can bring yields up and make these crops profitable for them,” Schnell said.

He said the field research is currently ongoing on the research farm near College Station, but in the final year of the three-year project, they plan to conduct demonstrations with producers around the state.
Fumonisin update meetings set Dec. 19 in Dumas, Dimmitt

By: Kay Ledbetter

Texas Corn Producers and the Texas A&M AgriLife Extension Service will host two update meetings December 19 regarding fumonisin issues in corn this year and what to expect for 2018.

“These meetings will offer our farmers an opportunity to review the regulation and policies related to fumonisin and provide guidance on planning for the year ahead,” said David Gibson, Texas Corn Producers executive director, Lubbock. “We want to ensure farmers have the information and resources available to adequately mitigate fumonisin risk.”

The first meeting will be from 9 - 11:30 a.m. at the Moore County Community Center, 1600 S. Maddox St. in Dumas. The second will be from 5:30 - 8:00 p.m. in the Castro County Expo Center, 405 S.E. 4th St., in Dimmit.

High levels of fumonisin in corn harvested this year in the Texas Panhandle resulted in about 700 farmers, crop consultants, insurance agents and end-users attending two emergency meetings in September.

Fumonisin is a mycotoxin produced by two species of Fusarium fungi that can cause illnesses in livestock and humans, so there are regulatory limits to the amount corn may contain.

Dr. Jourdan Bell, AgriLife Extension agronomist in Amarillo, and Dr. Jason Woodward, AgriLife Extensions plant pathologist in Lubbock, will begin each meeting with a discussion on production.

“We know that fumonisin occurrence is very dependent on weather conditions from year to year, but there are some agronomic steps producers can take to help minimize their risk,” Bell said.

Each meeting will also include representatives of the U.S. Department of Agriculture’s Risk Management Agency providing a crop insurance update and reports from representatives of a Lending Task Group and Marketing Task Group.

Both meetings will conclude with a question and answer session.

Sympathy

Please keep these people in your thoughts and prayers.

Glenda Kurten, her husband, Lynn, and their family as they mourn the loss of her mother-in-law, Amy Rosier Kurten, who passed away November 19. The family is also dealing with Lynn’s battle with bone cancer.

The family of Dr. Ari Michelsen, who passed away September 28. Michelson was a former resident director of the Texas A&M AgriLife Research and Experiment Center in El Paso.

The family of Ulverd Alexander who passed away December 9. Alexander was an Extension agronomist in Vernon at the time of his retirement in 1992.

Concerns

Joyce Kohel, wife of retired soil and crop professor Dr. Russell Kohel, is in the rehab facility at St. Joseph Health Center following surgery to repair a broken hip incurred when she fell Dec. 7.
December

8 - High Plains Ag Conference - Lubbock  contact: rj-scott@tamu.edu
12 - Multi-County Brush and Forage Conference, Seguin
17 - Dr. Baltensperger’s Open House - 2:30 p.m.
23 - Jan 2. 2018 - University closed for Holidays

January

3-6 - Beltwide Cotton Conference - San Antonio, TX
8 - Soil and Crop Sciences Faculty Meeting
9 - Vice Chancellor's Awards in Excellence & AgriLife Extension Superior Service Awards
10 - Water, Energy, Food Nexus Initiative - San Antonio
11 - Soil and Crop Sciences Department Annual Meeting and Awards
17 - Water Quality Training - Mont Belvieu  contact: Michael Kuitu - mkuitu@tamu.edu
17-18 - Red River Crops Conference - Altus, OK  contact: Emi Kumura - emi.kimura@ag.tamu.edu
24 - Small Grains Advisory Committee
26 - Texas Watershed Stewards - Brenham  more info at: http://tws.tamu.edu

February 2018

14–17 - Phenome 2018, Tuscon Arizona
15-19 - American Association for the Advancement of Science Annual Meeting - Austin, TX
27 - Homeowner Septic System Maintenance class - Seguin  contact: Ward Ling - wling@tamu.edu

Save the Date

May 1-2 - 2018 McFadden Symposium - Brookings, SD