In This Month’s Agenda:
Comments from the Department Head
August Graduates
Remote Sensing
New Faculty
Alternative Crops
Wheat Harvest Research
More....
We reach the pinnacle of our productivity again this week with graduation ceremonies on August 12th. Congratulations to all and we wish you the very best as you move on to apply our vision to be the best at providing the world with sustainable food, feed, fiber, and fuel in a safe and aesthetically pleasing environment through discovery, education, and application. While some may be entering the workforce as consultants and practitioners, for others it may be working toward another degree.

Welcome aboard to all our new students, welcome back to all the returning students and best wishes on the new semester to everyone. It is truly an exciting time. A special thanks to Jonathan Stanush, the Texas Seed Trade Association scholarship recipient, for joining us at that meeting to represent A&M. He did an outstanding job.

Many have been busy dealing with the recent shortage of rainfall across the state. While mature crop harvest has progressed rapidly, irrigation demand for growing crops has really accelerated and many rain-fed crops are under stress. Many have committed a great deal to the development of grants this summer, from AFRI to corporate partnerships, to NSF and DOE. Best wishes on the completion, review and success of these proposals.

We have an opportunity to gather soil scientists from every aspect of the A&M system as this newsletter goes to press. This will be an exciting opportunity to explore big Ideas for our soils team, including big funding, national stature, international leadership and identification of the big issues.

We are excited about potential new cotton variety releases and pleased that so many participated from industry in our cotton variety field day in Weslaco. This month we had an opportunity to interface with several companies to explore future collaborations, including Slimini, Ceres, Advanta, Monsanto, Scotts and Bayer. We will greatly miss Steve Brown in these interactions and others. Our long term colleague, Ted Crosbie (Monsanto) also passed away in July. Please join us in celebrating their lives and contribution to Texas Agriculture.

I want to say a special thank you to those involved in our curriculum assessment discussions over the summer. This is a critical aspect in the continual improvement in our program and your efforts are greatly appreciated. We look forward to the plans developed by two newly appointed task forces: “improvement in the departmental climate,” and our “graduate curriculum review.”

Don’t forget to put the fall harvest festival on your calendar for Friday, October 7 at the equine center. The College tailgate will be on a separate weekend this year –Oct 29.

We again compliment our faculty for a considerable role, from development of programs to delivery of some great presentations on issues facing the ag industry. A special thanks to Amanha Stanush, the Texas Seed Trade Association scholarship recipient, for joining us at that meeting to represent A&M. He did an outstanding job.

Much has transpired since our last newsletter including significant interaction with our clientele through the Beaumont Field Day, Beef cattle Short course, Small grains workers, Texas Turfgrass Association, Unmanned Aerial Systems, Texas Cotton Producers; Texas State Support Committee and Texas Seed Trade Association, to name a few. I would like to bring our attention to the following activities:

2. Beef cattle Short course – A sell-out event with participants from throughout the state.
3. Small grains workers – A dynamic group working on research and education.
4. Texas Turfgrass Association – An active and growing organization.
5. Unmanned Aerial Systems – A growing field with potential applications in agriculture.
6. Texas Cotton Producers – An important organization representing cotton growers.
7. Texas State Support Committee – An important group supporting agriculture education.
8. Texas Seed Trade Association – An essential part of the industry.

This newsletter provides a snapshot of the various activities and interactions within the department. We are grateful for the support of our supporters and look forward to continuing collaborations in the future.
August 2016 Master’s and Doctoral Degree Candidates

Agronomy

Matthew Bean
Matthew received his Master of Science in Agronomy under the supervision of Dr. Cristine Morgan and Dr. Jamie Foster. A native of Dardanelles, Arkansas, Matthew earned his Bachelor of Science in Agriculture Business from Arkansas Tech University.

Food Science

Dorothy Herrman
Dorothy received her Master of Science in Food Science and Technology under the supervision of Dr. Joseph Awika. She grew up in College Station and also earned her Bachelor of Science in Food Science at TAMU. Dorothy has accepted a job as an associate food scientist in the plant science department of J.R. Simplot Co. She will be working with Innate potatoes.

Plant Breeding

Silvano Ocheya Assanga
Silvano received his Ph.D. in Plant Breeding under the supervision of Dr. Amir Ibrahim and Dr. Shuyu Liu. A native of Kenya, Silvano earned his Master of Science degree in Plant Breeding and Genetics from the University of Nairobi. Silvano has interviewed with Monsanto and CIMMYT and is expecting a job offer soon.

Drutdaman Bhangu
Drutdaman (Daman) received his Master of Science in Plant Breeding under the supervision of Drs. Wayne Smith and David Stelly. Daman came to A&M from St. Louis, Missouri, after earning his Bachelor of Science in Biology at the St. Louis University. He will remain at A&M to earn his Ph.D. under Dr. Smith.
Soil Science

Jason Ackerson

Jason earned his Master of Science in Soil Science under Dr. Kevin McGinnis.

A native of Grand Haven, Michigan, Jason earned his Bachelor of Science in Natural Resources and Environmental Science from the University of Illinois.

Water Management & Hydrological Science

Edward Laird

Ed earned his Master of Science in Water Management and Hydrological Science under Dr. Terry Gentry.

He came to A&M from Annapolis, Maryland, after receiving his Bachelor of Science in Chemical Engineering from Northeastern University.

Meredith Earwood

Meredith earned her Master of Science in Water Management and Hydrological Science under Dr. Diane Boellstorff and Dr. Ronald Kaiser of Recreation, Park & Tourism Science.

Meredith, who grew up in Sonora, Texas, received her Bachelor of Science degree in Agriculture Leadership and Development here at TAMU.

She will be returning to Sonora after graduation as the Assistant General Manager at the Sutton County Underground Water Conservation District.
Molecular and Environmental Plant Sciences

Bethany Andrews
Bethany earned her Master of Science in Molecular and Environmental Plant Sciences under the supervision of Dr. Bill Rooney.
A native of Olathe, Kansas, Bethany received a Bachelor of Science in Biology from Baylor University.
She has moved to Ft. Worth with her husband and is currently seeking employment.

Laura Masor
Laura earned her Ph.D. in Molecular and Environmental Plant Sciences under the supervision of Dr. Dirk Hays.
A native of Houston, she earned her Bachelor of Science from Sam Houston State and her Master of Science in Plant Breeding from TAMU.
In May, Laura began her career as a vegetative annual flower breeder and product manager for Ball Flora Plant near Arroyo Grande, California. She breeds Calibrachoa, Bidens, Angelonia, Coleus and Verbena

Guangyuan Xu
Guangyuan Xu earned his Ph.D. in Molecular and Environmental Plant Sciences under the supervision of Dr. Ping He.
Guangyuan is from Weifang City, China. He earned his undergraduate degree at Shandong Normal University and his Masters of Science at China Agricultural University.
After graduation he will be doing post-doctoral work at the University of California - Riverside.
Soil and Crop Sciences Class of 2016 - August Graduates

Spencer Callaway
Currently in the process of applying for positions.

Haley Kennedy
After graduation will begin working on her Master of Science here at TAMU under Dr. Steve Hague.

Dillon Peltier
Has accepted a position as a Sales Rep 3C at GoPro and is the owner operator of Paradise Pursuit and Peltier Farms Crawfish.

Plant and Environmental Soil Science
Soil and water emphasis

Plant and Environmental Soil Science
crops emphasis

SAVE THE DATE
Retirement Celebration for
Dr. Paul Baumann
Wellborn Community Center
September 10, 2016
6:30 p.m.
Department of Soil and Crop Sciences
More information to follow
COLLEGE STATION – Dr. Sakiko Okumoto has her eye, or specifically her microscope, trained on tiny protein-based fluorescent sensors that track amino acids in live plant cells. Okumoto is the newest faculty member in Texas A&M University’s soil and crop science department and will be working as a plant physiologist with Texas A&M AgriLife Research.

Okumoto has concentrated both her teaching and research interests in the development of biosensors for small biological molecules; nitrogen transport and sensing in plants; and improving nitrogen utilization efficiency of plants.

“The overall goal of my research is to understand how nitrogen, quantitatively the most important nutrient in crops, is managed in plants,” she said. “Specifically, my research aims to determine how amino acids, one of the main forms of organic nitrogen in a plant body, is transported.”

Okumoto explained that nitrogen is required in bulk to make proteins and nucleic acids, DNA and RNA, among other things. Amino acids serve as the “currency” of nitrogen in a plant body and circulate all the time between different organs.

“We try to understand how amino acids move from one organ to another and how much they move,” she said. “Then we use that knowledge to improve crop plants, for example, increasing the quality and quantity of nitrogen in the plant parts we eat, such as seeds and tubers.”

Her work is initially being done on the model plant, Arabidopsis, which is a member of the mustard family. “However the principle we discover will be applicable to other crops, because the mechanisms to transport amino acids seem to be mostly shared among different species of plants, including crops and weeds.”

Okumoto said protein-based, fluorescent sensors are powerful tools to study such mechanisms. The sensors provide a method to trace the movement of amino acids or other molecules in specific compartments within live cells, which is near impossible otherwise.

“Also we can purify the sensor protein from bacteria and use it as a cheap and efficient method to detect amino acids in a complex sample. “We utilize these sensors to discover novel molecular mechanisms that are involved in the regulation of amino acids,” she said. “We are currently interrogating the processes in which amino acid exporters are involved using various genetic resources such as T-DNA insertion mutants and gene editing tools. We are also interested in developing novel sensors for other biologically important molecules.”

Okumoto said they have discovered multiple transporters that export amino acids from plant cells. “It has long been known that certain plant cells are capable of exporting amino acids – seed coats and the cells at the surface of the root, for example. But we had no idea what kind of transporters were involved. The work we have conducted so far assigns specific proteins for those functions.”

As she settles into her research and teaching, Okumoto said she also is interested in looking at the interface between the plant root and soil.

“We discovered that some plant transporters are responsible for ‘losing’ amino acids into the soil – why? My hypothesis is that plants utilize amino acid for communicating with the soil bacteria.”

She said this is an exciting time in research because of the growing capacity to alter the genomes of plants using sequence specific nucleases.

“We aim to use that tool to understand more key players in nitrogen transport in model plants and beyond.”

Dr. Sakiko Okumoto is the newest faculty member in Texas A&M University’s soil and crop science department and will be working as a plant physiologist with Texas A&M AgriLife Research.
Something can be learned from every wheat harvest, but Texas A&M AgriLife Research wheat breeder Dr. Jackie Rudd said it is just “fun” to see the success of this year’s bounty.

Developing a new wheat variety is a 10-15 year process, so after the four drought years of 2011-2014 and last year’s heavy stripe rust, “varieties that made it through are showing the best drought tolerance I can honestly say that we have ever had.

“This year we were able to see the high yields on top of the drought tolerance and on top of the disease resistance,” Rudd said.

He said several experimental lines looked promising. TAM 111 and TAM 112 are generally used as the germplasm base for these experimental lines.

“Those two varieties did quite well this year, but we had experimental lines that have better drought tolerance than TAM 112 and are higher-yielding than both TAM 111 and TAM 112.”

Additionally, TAM 113 and TAM 114 are some of the Texas A&M wheat breeding program’s newer varieties for the High Plains, and they did extremely well also, he said.

“It’s been very rewarding to see the things we have developed in the past five years perform so well. It’s the wide variety of environments that we are able to test under that really contributes to our success.”

Rudd said the varieties are not only adapted to the Texas Panhandle and High Plains, but are grown all the way from the southern plains of Texas to Nebraska.

The reason they are so adaptable, he said, is they are tested in research plots across Texas.

“We are not necessarily trying to breed a single variety for the entire state of Texas, but it is important to know how they survive the severe disease pressure found in South Texas, the extreme temperatures of the Rolling Plains, the heavy rains of North Texas and the persistent droughts of the High Plains.

“We know it is our environments throughout Texas that help us develop the best disease resistance that can be found in any wheat program,” Rudd said.

After four years of drought, a battle with stripe rust and a hailed-out crop last year, reaping 65-70 bushel-per-acre dryland wheat and 90-100 bushel-per-acre irrigated wheat this year in the AgriLife Research plots was a nice change, Rudd said.

“It was a lot of fun,” he said. “It was outstanding this year because of the high yields. As a breeding program, what we do is develop new varieties for this area, and the research is all dependent on the environments we get.”

Rudd explained that research plots are similar to those of the producer, subject to losses from disease, pests, hail, drought and flooding.

“So much of the rest of the state was either planted late or not at all because of too much water this year,” he said.

“And a lot of what was planted was hit by stripe rust or sprouting or harvested late because of continuing rains during harvest time.”

This year things came together for the High Plains wheat harvest, Rudd said. Test weights were high, yields were high and even though the protein was a little low, it is a very marketable crop.

He explained the protein was a little low because no one was really expecting such a good crop, so additional fertilizer to compensate for the higher yields was not applied. Good April rains and slightly cooler May temperatures were an unexpected bonus for the wheat crop.
Sensor technology could possibly solve many challenges of crop production, and Texas A&M AgriLife Research faculty are aggressively attempting to find new solutions.

Dr. Alex Thomasson, an AgriLife Research biological and agricultural engineer, and Dr. Seth Murray, AgriLife Research corn breeder, both in College Station, and others are working jointly on several projects. One project, an unmanned ground phenotyping system, provides data that can be used to aid decisions in breeding and production agriculture through techniques like conceptual modeling and spatial prediction, according to the scientists.

“An unmanned ground phenotyping vehicle is being tested to collect real-time crop data.”

“One project, an unmanned ground phenotyping system, provides data that can be used to aid decisions in breeding and production agriculture through techniques like conceptual modeling and spatial prediction, according to the scientists.”

“We can also look at other characteristics like the drought tolerance of the plant. The data these machines collect will ultimately enable the breeder to make selections from the best varieties and to do so much quicker.”

Thomasson and other AgriLife and U.S. Department of Agriculture scientists are developing the ability to use remote sensing to detect and treat cotton root rot. Cotton Incorporated has been a strong supporter of this research, some of which is occurring at the Stiles Farm at Thrall.

“The cotton root rot project involves a lot of remote-sensing work to detect the locations of infection within individual fields,” he said. “It’s expensive for cotton farmers, not only the yield losses from the disease but the treatment to prevent it. It’s costing them about $50 an acre to treat the fields, but this research can save them a lot of money by enabling them to treat only the infected areas of a field. Some are trying to use satellite data to identify infected areas, but the image resolution is low. We’ve begun using UAVs (unmanned aerial vehicles), which give us images with extremely high resolution. We have the potential to see where each infected plant is so we can know exactly where to place fungicide in subsequent seasons.”

The remote-sensing research is related to a broader scope of research projects implemented by AgriLife Research. The Texas A&M Coordinated Agricultural Unmanned Aerial Systems project and Ground Vehicle Validation is a collaboration of more than 40 faculty members within the Texas A&M University System.

“An unmanned ground phenotyping vehicle is being tested to collect real-time crop data.”

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Led by AgriLife Research, the project also involves the Texas A&M Engineering Experiment Station, the Center for Autonomous Vehicles and Sensor Systems, and the Center for Geospatial Applications and Technologies, as well as businesses and farmers. The research centers on 1,400 acres of AgriLife Research fields near College Station where corn, cotton, sorghum and wheat, as well as peaches and perennial grasses are grown.
Alternative crops will not supplant top commodities such as corn and cotton, but producers choose them as drought-tolerant rotation options that can pay off when the price is right, said a Texas A&M AgriLife Extension Service agronomist in Lubbock.

Dr. Calvin Trostle said alternative crops such as sunflowers, sesame and guar also give producers, especially in the Rolling Plains and High Plains regions, viable options when it comes to replanting on a failed field. They can also be used for rotations for soil health, or enduring heat and drought conditions, as well as provide access to other markets when prices and industry demand.

In Central Texas, some sunflower fields are being harvested now, Trostle said. Good yields are being reported. One producer in Ellis County said sunflowers performed better than any other crop he planted this year, Trostle added.

Prices on sunflowers and other oilseeds have been better in the recent past, Trostle said. But sunflowers have a wide planting window, are drought tolerant and make good rotation crops for commodity crops like cotton.

“Producers seem to like them, but it comes down to how many contracts are there to be filled,” he said. “The price goes up and down based on the number of acres the industry needs.”

Trostle said guar, or cluster bean, a drought-tolerant legume, has become an option in West Texas cotton crop rotations. Guar is used to produce food emulsifiers and lubricants for oil and gas drilling and fracking.

Trostle said producers in West Texas and a few other areas are facing moderate drought and high temperatures, as well as a lack of precipitation that have been stressing dryland plants. Those conditions make sesame, sunflowers and other crops that can take heat and lack of moisture more appealing to producers.

The number of alternative crop acres planted goes up and down like most other crops from year to year, Trostle said. Under the right conditions it can be a good financial decision.

Dr. Clark Neely, AgriLife Extension statewide small grains and oilseed specialist in College Station, said canola performed well for producers despite heavy spring rains. Canola is a cool-season oilseed crop harvested before summer, similar to wheat.

Neely said more producers are becoming aware of the crop as an option to wheat, which has experienced dipping prices, Neely said. Canola follows the soybean market and prices were strong, around $6.50 per bushel currently, but peaked at over $8 per bushel at harvest time, compared to wheat, which stayed at or below $4 per bushel.

Canola prices generally peak at harvest time for the Southern Great Plains as the majority of North American canola is spring canola, which is harvested in late summer in North Dakota and Canada, Neely said. This gives winter canola grown in Texas a price advantage.

Neely and Trostle said interest in alternative crops fluctuates with prices on typical commodities such as cotton, corn and wheat.

“Anytime you see dips in the commodity prices, you’ll typically see more alternative crop acres planted,” Neely said.

For more information contact:
Dr. Clark Neely: cbneely@tamu.edu or
Dr. Calvin Trostle: c-trostle@tamu.edu
Big Country Wheat Conference Aug. 18 in Abilene

Biennial event meant to ready producers for the fast approaching season

By: Steve Byrns

Alternative crop options and the latest in new technology will headline this year’s Big Country Wheat Conference in Abilene, organizers said.

The biennial event conducted by the Texas A&M AgriLife Extension Service will be held Aug. 18 in the Big Country Hall located on the Taylor County Exposition Center grounds, 1982 Lytle Way.

On-site registration will start at 8:30 a.m. and continue until 2 p.m. There will be a $10 fee, and those planning to attend are asked to RSVP by Aug. 5 to Voyles at 806-373-0713.

Three Texas Department of Agriculture continuing education units – two general and one integrated pest management – will be offered.

Lunch will be provided by the Texas Wheat Producers Board and Association. The guest speaker will be Steelee Fischbacher, director of policy and marketing, who will provide a wheat industry update.

Speakers and topics will include:

- Dr. Mark Welch, AgriLife Extension economist in College Station, Market Outlook Update.
- Dr. Clark Neely, AgriLife Extension state agronomist in College Station, Uniform Variety Trial Update.
- Tiffany Dowell Lashmet, AgriLife Extension agricultural law specialist in Amarillo, Land Leasing Option.
- Rachael Myers, Myers Crop Insurance Agency, Insurance Decision.
- Dr. Ron French, AgriLife Extension plant pathologist in Amarillo, Wheat Disease Strategies.
- Dr. Steve Amosson, AgriLife Extension economist in Amarillo, Grazing Versus Grain Economics.

For more information, contact Voyles at Austin.voyles@ag.tamu.edu.

Pre-Plant Wheat Meeting Aug. 12 in Amarillo

By: Kay Ledbetter

The Texas A&M AgriLife Extension Service office in Potter County will host a Pre-Plant Wheat Meeting Aug. 12 at the Texas A&M AgriLife Research and Extension Center, 6500 Amarillo Blvd. West in Amarillo.

“This meeting will offer timely, research-based information to aid producers with informed decisions and profitability,” said Austin Voyles, AgriLife Extension agriculture and natural resources agent in Potter County.

The meeting will begin with registration at 8:30 a.m. and continue until 2 p.m. There will be a $10 fee, and those planning to attend are asked to RSVP by Aug. 5 to Voyles at 806-373-0713.

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- Dr. Steve Amosson, AgriLife Extension economist in Amarillo, Grazing Versus Grain Economics.

For more information, contact Voyles at Austin.voyles@ag.tamu.edu.
Texas A&M weed judging teams performed well in both the graduate and undergraduate contests at the Southern Weed Science Society’s weed judging contest held August 2-3 in Scott, Mississippi.

In undergraduate competition, Zach Schafer was the second hi-point individual.

“We did not get a position in the graduate competition, however one member of the grad team, Prabhu Govindasamy, correctly identified 48 out of 50 weed species which is a commendable job,” said Dr. Vijay Singh, one of the teams’ coaches.

“We did very well in some sections of the contest, like weed identification, herbicide symptomology and mathematics, but we struggled a little bit with the farmer problem,” Singh continued. “I believe that is primarily because this is the first year for most of our team members. I think they will get even better.”

All of the team’s coaches are expecting to see an improvement in the team’s performance at the next contest.
Several interns worked with professors in the Soil and Crop Sciences Department this summer. In addition to students from the Yucatan, Dr. Muthu Bagavathiannan also worked with a student from New York.

Cynthia Sias, who is originally from El Paso, is currently attending Cornell University in Ithaca, New York. An internship is a requirement for her Bachelor of Science degree in Agriculture Science and Plant Science. When she requested an internship closer to home, her advisor turned to Texas A&M.

“My advisor, Dr. Antonio DiTommaso, knew Dr. Muthu as a weed science colleague, and he arranged for me to be here,” Sias explained.

Throughout July and August, Sias has worked with Dr. Bagavathiannan and his graduate students in the fields and the laboratory.

“My primary duty was to help the grad students with their daily tasks,” Sias stated. “I worked with Johnsongrass in sorghum and barnyard grass in rice, doing whatever the graduate students needed me to do.”

While in high school Sias began working at a nursery near El Paso. That job introduced her to agriculture and to the outdoor lifestyle. She began to think that it might be the type of career she would enjoy.

“In college, the more courses I took and the more I learned, the more I was convinced that this is what I wanted to do with my life,” Sias said.

Being on the A&M campus has also convinced Cynthia that she might like to be an Aggie.

“I have really enjoyed being here. Everyone has been so nice,” she said with a smile. “I would love to come back to A&M for graduate school.”

This Friday, as some Aggies are graduating, Sias will say her goodbyes and head back to New York.

Perhaps in two years we will see her again, that time wearing maroon.

Matthew Wilhelm is spending the summer of 2016 at the USDA ARS Soil and Water Management Research Unit in St. Paul, Minnesota, as a Wallace-Carver Fellowship intern.

Wilhelm, who will graduate in May 2017, is a double major in Plant and Environmental Soil Science - crops emphasis and Agriculture Economics.

Thirty-seven students from twenty-three colleges and universities nationwide were selected as Fellows for 2016. They are stationed at a variety of USDA offices and research centers across the United States.

The Wallace-Carver Fellowship offers collaboration opportunities to outstanding college students. The Fellowship was created through a partnership between the United States Department of Agriculture and the World Food Prize Foundation founded by Dr. Norman E. Borlaug.

Aggie Senior Earns Wallace Carver Fellowship
VERNON – Texas A&M AgriLife Research lost a tremendous asset July 27 when Steve Brown, Texas Foundation Seed Service program director in Vernon, was killed in a car accident.

Funeral arrangements were handled by Sullivan Funeral Home, 1801 Houston St. in Vernon. Visitation was held from 6-7 p.m. July 29 in the chapel of the funeral home. The funeral service was at 10 a.m. July 30 in First Baptist Church at 2003 Fannin St. Burial will be in Eastview Cemetery.

“There are no words to express the sorrow I feel in the sudden tragic death of my friend and colleague Steve Brown,” said Dr. Bill McCutchen, executive associate director of AgriLife Research in College Station. “Steve was the consummate professional and a leader of innovative strategies that helped lead to the rejuvenation of the small grains and cropping systems programs across the agency. He had a way of working with people to develop personal relationships. His impacts on Texas A&M are reverberating across the nation and now the world. He worked tirelessly with faculty, unit heads, stakeholders and industry leaders to advance improved plant varieties, and he was loved and respected by everyone he met and touched.”

Brown became program director of Texas Foundation Seed Service in the fall of 2001 after spending 27 years in private sector agribusiness. During his time in the private sector, he managed a diversified company involved with seed production and distribution, commercial grain operations and livestock feed manufacturing.

At Texas Foundation Seed Service, he worked closely with the various plant breeding programs within Texas A&M AgriLife Research and private sector companies interested in licensing AgriLife Research plant material improvements.

He also worked with the Texas A&M University System’s Office of Technology Commercialization and Texas A&M AgriLife’s Corporate Relations Office to help develop distribution plans to make AgriLife’s plant developments available to producers in Texas and beyond.

“Under Steve’s service as director of the Texas Foundation Seed Service, the royalties from commercial sales of small grains varieties increased 15-fold from when he took over,” said Dr. John Sweeten, AgriLife Research resident director at the Texas A&M AgriLife Research and Extension Centers in Amarillo and Vernon.

Additionally, Brown was instrumental in the collection of royalties from other plant varieties, including various grasses, sorghums, peanuts, forages and corn. These were not collected prior to his involvement, and by 2015 they amounted to more than $1.5 million.

Brown oversaw the foundation seed increase of various Texas A&M AgriLife-developed crops, including wheat, oats, triticale, canola, cool-season grasses, peanuts and hibiscus flowers.

Foundation seed is the first step in the commercial process. All TAM small grains varieties are licensed to and marketed by private industry, as AgriLife Research and Texas A&M are in the business of developing new varieties, a process that can take many years, but are not a commercial seed company.

Brown once explained that the Texas Foundation Seed Service’s role was to take a new variety from the research program and increase the seed to a large enough quantity to make it available to a commercial seed company that licenses the new variety.

The foundation seed step is designed to assure seed purity and variety integrity during the commercial life of the variety, Brown added. He was passionate about protecting that integrity even after the seed was commercialized.

“Infringers (on the Plant Variety Protection Act) are getting a free ride at the wheat developer’s expense and are reducing opportunities for new varieties to be developed that ultimately benefit wheat producers throughout Texas and beyond,” Brown said recently.

Those throughout the Texas A&M University System and industry who worked closely with Brown said his absence will be felt for many years.
“I have no words to express my sorrow,” said Dr. Jackie Rudd, AgriLife Research wheat breeder in Amarillo who worked closely with Brown on many TAM wheat releases. “He was a friend and an irreplaceable member of our wheat team.”

Rodney Mosier, executive vice president of Texas Wheat Producers Board in Amarillo, said, “Steve was an innovative leader in the Texas seed industry. His input and support of the board’s statewide research program was highly valued and he will be greatly missed. Texas wheat producers will continue to benefit from his efforts for many years.”

“Steve was dedicated, animated and a great contributor to Texas agriculture,” said Dr. Sandy Pierson, Texas A&M University plant pathology and microbiology department head in College Station. “His absence will be deeply felt by all of us.”

“Not only as a giant in his field and an integral member of Texas A&M, but also as a great person and friend of many of us, Steve will be greatly missed,” said Dr. Amir Ibrahim, AgriLife Research small grains breeder/geneticist in College Station.

Brown was active on both internal and external committees involving the seed industry and intellectual property. His internal committee service included seats on AgriLife’s Intellectual Property Management and Commercialization Team and the Plant Release Committee, the Small Grains Advisory Committee and the Texas Vegetable Industry Advisory Committee.

Externally, he served as chair of the Small Grains and Grass Committee for Texas Seed Trade Association and on the association’s board of directors. Also, he was a past chairman of the Cotton, Peanut and Sunflower Committee for the Association of Official Seed Certification Agencies and worked closely with seed certification agencies in many states across the U.S.

“Steve was a great person and an important member of the Texas A&M University System,” said Dr. Lloyd “Ted” Wilson, Texas A&M AgriLife Research Center director at Beaumont. “I will miss him dearly as a colleague and friend.”

Sweeten, who also serves as the Small Grains Advisory Committee chair, said Brown mentored many faculty members working with plant genetics and breeding, and was a valuable member of the statewide committee.

“Steve possessed a ‘street credibility’ from his years in the private seed industry that brought realism to the scientific processes of creating and developing new plant varieties and bringing them into the marketplace,” Sweeten said.

“Sometimes his best advice was, ‘No.’ But also words of encouragement from Steve Brown sparked vision and motivation in many a scientist. He was unafraid to wear the black hat when the situation called for it, such as vigorously pursuing and protecting plant varieties that met his threshold criteria for a significant advancement in the marketplace.

Lone Star Healthy Stream Workshops in Centerville and Gainsville

Texas A&M AgriLife Extension program specialist Matt Brown will be conducting Lone Star Healthy Streams workshops in Centerville Aug. 24, and in Gainsville Aug. 25.

In Centerville the workshop will be held from 10 a.m. to 3 p.m. at the Leon County AgriLife Extension Office, 113 W. Main Street.

The Gainsville workshop will also be from 10 a.m. to 3 p.m., and will be held at the Landmark Bank Center, 1112 E. California Street.

According to Brown, the presentations will focus on basic watershed function, water quality and specific best management practices that can be implemented to help minimize bacterial contamination originating from beef cattle, horses and feral hogs.

In Centerville a watershed protection plan is being created for the Navasota River. The presentations will help encourage landowners to integrate practices which will improve the local water quality while maximizing livestock production.

Three general continuing education credits will be available for certified pesticide applicators at each workshop.

There are currently about 265 bodies of water in Texas that do not comply with the state water quality standards for E. Coli bacteria. The Lone Star Healthy Streams program is designed to help educate landowners about conservation practices that will help improve and protect that water.

Each workshop will include a catered lunch. There is no cost, but participants are asked to RSVP by Aug. 20 by calling the Leon County Extension Office at 903-536-2531; the Cook County Extension Office at 940-668-5413 or by visiting the Lone Star Healthy Streams website - http://lshs.tamu.edu/workshops

For more information, contact either Extension office or Matt Brown - 979-862-8072  matthew.brown@tamu.edu
Agriculture has lost a distinguished scientist and innovator

Faculty from Texas A&M Soil and Crop Sciences Department said goodbye to a long-time friend and colleague July 23.

Theodore (Ted) Crosbie, Iowa Chief Technology Officer and Monsanto executive, passed away less than a month after a sudden illness assaulted first his lungs and then other organs.

According to his son, Jon Crosbie, Ted became ill July 1 while on vacation. He was transferred to the University of Kansas Medical Center in Kansas City, Kansas on July 4, and his condition deteriorated very quickly. As doctors scrambled to combat one issue, another would arise.

Ted grew up on a farm in northeast Iowa. According to an article written by his daughter-in-law, Kelsey Kunz Crosbie, Ted learned the responsibility of growing food for the world and carried that lesson throughout his life.

Ted received his Bachelor of Science degree in Agriculture Education from Iowa State University, and went on to receive his Master of Science and PhD, both in Plant Breeding and Cytogenetics.

He served on the faculty at Iowa State before entering the private sector with a job at Pfizer, then Garst Seed Company – where he was the Director of Research. Ted later served as the CEO for ICI Seeds, and then joined Monsanto in 1996. He served as Monsanto’s Vice President of Global Plant Breeding for 16 years and later as the Integrated Farming Systems Lead until his retirement in 2014.

Ted was named an Iowa State Distinguished Alumni, and was recognized as a Monsanto Distinguished Fellow of Science in recognition of his “broad strategic impact in Monsanto through scientific leadership.”

He co-founded the Biosciences Alliance of Iowa and chaired that organization from 2004 – 2010.

He served on the Iowa Innovation Council and was recognized by Iowa Governor Terry Branstad with a lifetime achievement award from Iowa Innovation Corporation for his efforts to support innovation and job creation. Crosbie also played a lead role in establishing the Monsanto Beachell-Borlaug International Scholars Program which has supported 89 scholars from thirty countries in the past eight years.

“All the MBBI Scholars have enjoyed a meal at the Crosbie farm, or in Clive the times we could not go to their farm,” said Dr. Ed Runge, Program Director and Judging Panel Chair for the scholars program. “They also know his wife, Ro, from the leadership course they attended.”

Ted was a distinguished scientist and innovator, but first and foremost he was a farmer.

“He had a lot of hobbies, but he was best at growing things,” said his son Jon. “What he really wanted most was to get food to people who didn't have it. He wanted to feed as many people as possible.”
Anyone interested in private water well management is invited to attend one of two upcoming Texas Well Owner Network trainings to be conducted by Drew Gholson, Texas A&M AgriLife Extension Service program specialist and network coordinator in College Station.

These trainings will be held in Crowley on August 18, and in Henderson on September 8.

In Crowley the training will be from 1-5 p.m. at the Crowley Recreation Center, 405 S. Oak St.

The Henderson training will be held from 1-5 p.m. at the meeting room for the Texas A&M AgriLife Extension Service office in Rusk County, 115 E. Fordall.

Each session is free and open to the public.

Those who wish to have their well water tested may pick up sample containers from their local AgriLife Extension office, from the Crowley Recreation Center, or from the Rusk County Groundwater Conservation District.

Bringing water samples to the training is not required, Gholson said, but those wanting to have water samples analyzed must attend.

Space is limited at each training, so Gholson recommends that those who plan to participate preregister online at http://twon.tamu.edu/training or by calling 979-845-1461 as soon as possible.

There will be a total of 30 trainings held statewide this year.

“The core content of these programs is the same as TWON trainings in other locations, but the information is tailored to local water quality issues and aquifers,” Gholson stated.

There are more than 1 million private water wells in Texas which provide water to households in rural areas and on small acreages. Gholson stresses that there is no governmental oversight on those wells.

“Private well owners are independently responsible for monitoring the quality of their wells,” he said. “They are responsible for ensuring their drinking water is safe. This means they are responsible for all aspects of the water system – testing, inspecting, maintaining – and this training will help private well owners to understand and care for their wells.”

Funding for the Texas Well Owner Network is through a Clean Water Act nonpoint source grant provided by the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency. The project is managed by the Texas Water Resources Institute, part of Texas A&M AgriLife Research, the AgriLife Extension and the College of Agriculture and Life Sciences at Texas A&M University.

For more information contact Drew Gholson by calling 979-845-1461 or email: dgholson@tamu.edu or go to the Texas Well Owners Network website http://twon.tamu.edu
Fifty-one Soil and Crop Sciences faculty, staff and students gathered in College Station August 3 - 4 for the Small Grain Workers Meeting. “This meeting provides an opportunity for researchers from around the state to get together and exchange ideas, coordinate research efforts and update one another on research efforts statewide,” stated Dr. Clark Neely, who organized the meeting.

“These types of meetings allow us to maximize our efforts and efficiency without duplicating research,” Neely continued. “Receiving feedback from peers can help improve crop trials.”

Those gathered included extension agents, extension specialists, geneticists, plant breeders, crop physiologists, fertility specialists, entomologists and more.

Dr. Jourdan Bell gave a crop update from the high plains region during the Small Grains Workers Meeting August 4.

Dr. Clark Neely organized the event and gave a crop update during the meeting.

Dr. Baltensperger, Soil and Crop Sciences Department Head, spoke to the gathered scientists about new frontiers in wheat research.

Dr. Amir Ibrahim spoke about the challenges and benefits of hybrid wheat.

Participants at the 2016 Small Grain Workers Meeting
Progress on the New ScottsMiracle-Gro Lawn and Garden Research Facility

All the drywall is up in the Administration building and the rockwork on the exterior is moving forward quickly. The interior of the shop building has been completely framed out. According to Dr. Richard White, the building should be completed in early December. An open house/grand opening and field tour will be held in April 2017.

Planting the Maze Maize

The corn has been planted for Corn Maze 2016. Once the corn starts to grow, members of the Texas A&M Agronomy Society, armed with mowers and a GPS unit, will cut the paths for the maze. The Corn Maze will be open each weekend in October, beginning October 1. This will be the second annual Maze and the students are working to make it bigger and better than last year. There will be a cotton patch in which parents can take photos of their children and other fun activities for the entire family.
August

2-3 - Southern Weed Science Society Weed Contest - Scott, MS
3 - Wheat Workers Meeting - College Station, TX
12 - College of Agriculture summer graduation
4 - Small Grain Workers Meeting - College Station, TX
15-18 - National Association of Plant Breeders Annual Meeting - Raleigh, NC

September

6 - Promotion and Tenure Meeting
10 - Retirement Celebration for Dr. Paul Baumann - Wellborn Community Center
19-21 - Sorghum Improvement Conference (SICNA) 2016 - Manhattan, KS

October

1 - Agronomy Society Corn Maze Opens - open every weekend in October
7 - Harvest Festival - TAMU Equine Center
29 - College of Agriculture and Life Sciences Tailgate - College Station

Save the Date

November 30 - Dec. 1 - Texas State Support Committee Project Review Meeting - Lubbock
December 6-7 - Texas Plant Protection Conference - Bryan-College Station
January 31-Feb 2 - Texas/Oklahoma Cotton Physiology Meeting