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And suddenly it is fall.

It’s time to wrap up summer harvest in Texas and a new school year has begun. The days are noticeably shorter, and the temperatures are dropping. The students are back in College Station, and we welcomed them with donuts, juice and coffee. September brings new titles to several of our faculty members as promotions become effective. Congratulations to Drs. Seth Murray, Ambika Chandra and Girisha Ganjegunte on promotion to full professor and Drs. Muthu Bagavathiannan and Xuejun Dong on promotion to associate professor.

This month our faculty has been involved with the Bushland forage sorghum silage trial plot tour, the soils critique, Texas Wheat Producers Board and small grains workers meeting, watershed stewards and homeowner septic system workshops, and more.

The department is wrapping up a large renovation (see story and photos inside). This was a joint effort between AgriLife, the department and the provost's office. Upgrades to the teaching labs and classrooms and restrooms make the rooms more functional and expand capacity. Since the last newsletter came out, we have said our final goodbyes to Dr. Murray Milford, a renowned soil scientist and outstanding professor. His legacy will live on in the many students he taught (see page 3).

We are also saying goodbye to Debbie Sutherland, who has been part of our Extension program for nearly 20 years. She has accepted a position with different program within AgriLife Extension and will be starting there at the end of the month. We wish her the best and thank her for her years of service. With her new role, we expect her to greatly facilitate our interaction with Extension Administration (more on page 5).

Dr. Aart Verhoef has joined the department as an assistant professor of biophotonics. His wife, Alma Fernandez Gonzalez, will also be joining us soon. We welcome them to the department (story on page 5).

Congratulations to Dr. Bill Rooney as we are seeing a new cereal made with a sorghum variety he bred hit store shelves. Grain Berry Mills produces several types of Grain Berry cereal, all of which contain Rooney’s ONYX sorghum (see story page 6).

We are looking forward to the second annual Gene Editing Symposium. We appreciate the efforts of our graduate students in creating and conducting this event.

We are also looking forward to two turfgrass events, the Turfgrass Field Day which will be held October 9 in College Station, and the Tale of Two Playing Surfaces which will be in Dallas October 16.

Plan on joining us for our Harvest Festival October 11! A special thanks to our organizing team for making this happen and our entire Social Committee for providing great opportunities for interaction. See you there!

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/
Murray Milford, Ph.D., professor and former associate head for academic programs with the Department of Soil and Crop Sciences at Texas A&M University, died Aug. 20.

Milford retired in 2001 after more than 32 years of service at Texas A&M, but remained in the department as Professor Emeritus. While teaching, he touched the lives of more than 17,000 students in Agronomy 301 and 1,100 graduate students who passed through the department with Milford serving as their graduate adviser.

Julie Howe, Ph.D., former student ‘95 and now Texas A&M AgriLife Research soil chemistry and fertility associate professor at Texas A&M, said she owes her career to Milford through his ability to show how soil science was at the intersection of many different disciplines.

“I’m a soil scientist because of him, as I would have never considered a career in soil science before his class,” Howe said. “Also, when I tell former Aggies what I do, invariably they respond with ‘I took this soil science class with this guy. He was amazing. Do you know him?’”

Something she and others recall is that he never forgot his students – he remembered everyone’s name long after they left the university.

“It was sometimes a little spooky how he’d call you out by name in a class of over 100 students only a few weeks into the semester,” Howe said. Cristine Morgan, Ph.D., former Texas A&M soil scientist and now chief scientific officer for the Soil Health Institute, agreed that Milford touched the lives of many of the department’s alumni and also piqued her interest in soil as a profession.

“He changed my stereotypes of soil science,” Morgan said. “My reverence for what he did for soil science at TAMU is overwhelming to me right now. We have so many loyal alumni because of him. I witnessed that any time I called a farmer and needed to grab a soil sample or dig a pit. They knew Dr. Milford and would always ask about him.”

Milford and his wife, Marsha, established the Marsha and Murray Milford Graduate Endowment in Soil and Crop Sciences to benefit students pursuing graduate degrees in soil science at Texas A&M in 2002. So far seven students have benefited from this endowment, with several students receiving it more than one year.

“Receiving the Milford endowment was a great honor for me, and I am grateful to their contribution as it was a tremendous help to my Ph.D. program,” said doctoral student Aditi Pandey, a graduate research assistant and the most recent endowment recipient. “Meeting both Dr. and Mrs. Milford was a joy. They both were warm and welcoming, and even invited me to their family’s Thanksgiving dinner. I feel blessed to have been part of their endowment and am deeply sorry for Mrs. Milford’s loss.”

Milford so endeared himself to his students that they named for him a Texas A&M University Fish Camp, which introduces incoming freshmen to Aggieland in a summer-camp setting. Also Room 101 in the Heep Center was named The Murray H. Milford Teaching Auditorium by the Texas A&M to honor his service.

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“Dr. Milford is one of the most recognized soil science instructors in the world, known not only for outstanding teaching, but also for his recognition of students and their hometown by the third class each year, and then recognizing family members who attended his class a generation or more later,” said David Baltensperger, Ph.D., Soil and Crop Sciences Department head.

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Soil and Crop Sciences as an associate professor of soil science in 1968, earning promotion to professor in 1974.

In addition to teaching, Milford served the department as the associate head for academic programs and was the interim department head from Sept. 1, 1999 through Jan. 31, 2001.

Milford was a member of several professional societies in which he held a variety of offices. He earned the designation of Fellow in the American Society of Agronomy, the Soil Science Society of America and the American Association for the Advancement of Science.

He also received numerous honors and awards, including being the first individual to receive three university level Distinguished Achievement Awards from the Texas A&M University Association of Former Students – two for teaching, 1972 and 1994, and one for student relationships, 1988. He also received the Agronomic Resident Education Award, the Soil Science Education Award and the Southern Region Teaching Award.

For those wishing to honor Milford, the family requests memorials “In honor of Dr. Murray Milford ‘55” be made to the Texas A&M Foundation, 401 George Bush Drive, College Station, Texas 77840. Please include the account information in the memo line of the check as: account #04-57499 or account name, Marsha and Murray Milford ‘55 Graduate Endowment in Soil and Crop Sciences, or go online to https://give.am/MilfordGradEndSoilCrops.

The Murray H. Milford Teaching Auditorium in the HEEP Building was dedicated to Milford after his retirement. (Texas A&M photo by Beth Luedeker)

Soil and crop student interning in Washington D.C.

Ashley Carter, a senior in the Texas A&M University Department of Soil and Crop Sciences, is one of 11 Aggie students spending the fall semester in Washington D.C. as part of the Agricultural & Natural Resources Policy (ANRP) Internship Program.

Carter is pursuing her Bachelor of Science in Plant and Environmental Soil Science - Crops Emphasis, with a minor in Agricultural Economics. She expects to graduate in May 2020, after which she plans to pursue a career in international trade analysis and policy making.

She is spending the semester in the office of Congressman Filemón Vela, who has represented Texas’ 34th congressional district since 2013. That district stretches from the southernmost tip of Texas in Cameron County to Gonzales County, and includes Brownsville and the King Ranch.

Carter came to Texas A&M from Brasilia, Brazil, following in her father’s footsteps.

She grew up in an rural community in Brazil, and found her passion for agriculture when her family began farming, and also when she began barrel racing, according to her ANRP profile.

At Texas A&M, Carter is a member of the Agronomy Society and serves as the group’s treasurer.

In her ANRP profile she expresses a desire to help aid in the beneficial relationship between large companies and the government to help them work together to further agriculture.
Verhoef joins the Department of Soil and Crop Sciences

By: Beth Ann Luedeker

There is a new face in the Department of Soil and Crop Sciences! Aart Verhoef, Ph.D., has joined us as an assistant professor of biophotonics, based in College Station.

While his degrees were in physics, Verhoef also did considerable work on laser development. When he looked for real world applications for lasers, he found biophotonics.

“Biophotonics is basically the study of biology with controlled light,” Verhoef explained. “Lasers are controlled light.”

For the past four years Verhoef has worked as an Invited Researcher at the Vienna University of Technology (TU Vienna) Photonics Institute, where he worked on nonlinear optical imaging development (lasers) for use in neuroscience.

Here at Texas A&M, Verhoef will be using those lasers to help advance agriculture.

“I plan to use laser techniques such as Raman spectroscopy to detect plant diseases and to study plant characteristics involved with carbon sequestration in the roots,” Verhoef said.

He explained that part of his research will include studying the plants in vivo at the molecular level to determine if there are ways to manipulate the plants into storing carbon for longer periods of time after the plant dies, rather than releasing it as carbon dioxide.

Verhoef also hopes to continue his neuroscience research on fruit flies.

“I helped develop a method by which we can do laser experiments under the microscope with the lights on,” he said. “This makes it much more relevant when studying the flies, since they are diurnal creatures.”

Verhoef’s wife, Alma Fernandez Gonzalez, will also be joining the department in the near future, working both with biophotonics and in Marlan Scully’s lab in the Institute for Quantum Science and Engineering.

A native of Holland, Verhoef earned his Master of Science in Physics from Vrije Universiteit Amsterdam and his Ph.D. in Physics from Ludwig Maximilians Universität (LMU) Munich.

Sutherland leaving Soil and Crop Sciences

Debbie Sutherland, Senior Administrative Coordinator for Extension, is leaving the Department of Soil and Crop Sciences after nearly 20 years of service.

Sutherland has accepted a position in the AgriLife Extension Health, Families, and Youth Program, working with Dr. Courtney Dodd.

“I wasn’t looking for a new job, but when I became aware of this position it appealed to me, so I chose to apply. I am looking forward to this new challenge,” Sutherland said.

For the past thirteen years, she has been Dr. Larry Redmon’s administrative assistant and a regular presence at Extension functions.

Prior to working for Redmon, Sutherland served several Extension specialists and those in their programs.

She will now be officed in the Agriculture and Life Sciences building, not far from the Heep Center.
Texas A&M-bred sorghum now on the cereal aisle

By: Kay Ledbetter

Texas A&M AgriLife sorghum research may be known for its development of sorghum for animal feed and energy sectors, but cereal eaters across the nation are learning about its contributions to healthier human foods.

“We were targeting the health-food market when we developed the black grain sorghum hybrid Onyx in 2012,” said Bill Rooney, Ph.D., AgriLife Research sorghum breeder and Borlaug-Monsanto Chair for Plant Breeding and International Crop Improvement in the Texas A&M University Department of Soil and Crop Sciences, College Station.

The Onyx hybrid was licensed to Silver Pallet Inc., which spent several years in seed increase and commercial production on the Texas High Plains before featuring the product in their Grain Berry cereals.

“Texas A&M AgriLife is working to improve the quantity and quality of food production to benefit human health and ultimately lower health care costs,” said Patrick J. Stover, Ph.D., director of Texas A&M AgriLife Research and vice chancellor and dean for the College of Agriculture and Life Sciences. “Dr. Rooney’s research is a great example of how we can enhance the nutritional quality of the food supply to help manage chronic diseases by targeting quality endpoints with human nutrition in mind.”

Increased public interest in antioxidants

Rooney is known for his conceptualization and development of bioenergy sorghum hybrids – sorghum is considered to be the leading feedstocks for the bioenergy industry.

But as the general public becomes more health conscious, growing attention is being directed at his new and novel sorghum types for specific and unique markets.

Based on research conducted by the Texas A&M AgriLife Cereal Quality Lab, Rooney knew sorghums with dark colors and tannins have higher concentrations of antioxidants. As such, in developing the Onyx sorghum hybrid, he selected for those types to meet the growing public interest in finding foods with high antioxidant capacity.

Onyx2

“This was the first material we licensed with that characteristic,” he said. “We licensed a new hybrid to Silver Pallet last year, Onyx2, and increased seed production this year. It will be grown commercially next year.”

Onyx2 has the same components but provides better yields for production purposes, Rooney said. He said an issue with the original Onyx was its yield potential was lower than commercial grain sorghum hybrids.

“We were able to increase the yields about 25% from the first hybrid to the second,” he said.

Human nutrition market

Rooney said his program will continue to reach the human nutrition market with new hybrids.

“We are working with some specialty grain types, looking at new combinations of characteristics such as grain color, tannin concentration and endosperm characteristics,” he said.

The higher tannins are reaching the same market as the Onyx, Rooney said, because they have increased antioxidant values. Specific grain colors are for the specialty food market and are valued for the inclusion of specific compounds associated with natural preservatives.

“The grain source of these natural preservatives, however, is unique because most of the time these natural preservatives are sourced from fruits and vegetables that require processing to extract the compounds,” he said. “The sorghum requires less processing to access and stabilize the useful attributes.”

The other area of research, waxy endosperm sorghums, has the most marketing potential and interest for producers, Rooney said.

“Inclusion of these hybrid characteristics can affect industrial, food and livestock feed applications, because the starch is modified and is easier to process or digest,” he said. “Ethanol can be made faster; livestock can digest the grain faster; and it is easier for human food processors to use.”
Texas peanut fields looking good as harvest approaches

By: Adam Russell

Peanuts are nearing harvest, and so far 2019 looks to be a good year, according to a Texas A&M AgriLife Extension Service expert.

Texas peanut producers planted up to 185,000 acres compared to 155,000 acres last year, according to a U.S. Department of Agriculture report. Last year, Texas peanuts produced 3,100 pounds per acre on average.

Emi Kimura, Ph.D., AgriLife Extension statewide peanut specialist, Vernon, said peanut producers faced two weather-related problems last year – dry weather during the summer and wet weather at harvest.

But this year, Kimura expects average to above-average yields if conditions cooperate.

Peanut planting was delayed a week to 10 days due to wet weather in April and May. But good heat units throughout the summer have caught those fields’ maturity levels up.

Dry weather set in and drained topsoil moisture levels quickly. Kimura said planting conditions were very dry for most of Texas’ peanut-producing regions, but nearly all peanut acres are irrigated.

“Fields looked good overall, but conditions are extremely dry,” she said.

Kimura said 80-85% of topsoil moisture in peanut producing areas, including South and West Texas and the Rolling Plains was very short.

Pests and diseases

Pests and diseases have had little impact on the crop overall, she said.

Kimura said disease pressure was average to below average, but producers with a history of problems were aggressive with treatments.

“Producers with a history of diseases treated their fields four, five, six times,” she said. “Even producers who had very few disease issues sprayed, which is a good practice because diseases can get out of control quickly.”

Kimura said entomologists reported pests have been light this year as well.

Maturing

Harvest is about a few weeks away depending on the location, Kimura said. Most fields in South Texas have received enough heat units, but producers are waiting for peanuts to mature enough to dig.

Peanuts in the Rolling Plains and West Texas are usually planted in April or May, with fields in South Texas being planted in June, Kimura said. The earlier planting in the Rolling Plains helps producers avoid early freeze.

Producers will continue to check fields for maturity until the plants show 80-90% mature peanuts to reduce yield losses. They typically dig peanuts up in certain spots in a field and check the mesocarp layer, which is the middle layer under the fleshy outer part of the pods for color indicating harvest maturity.

“Overall, the crop looks good,” she said. “We’re hoping for good yields and should see them, barring any significant problems. Hopefully we will avoid the late rains that hurt harvest last year and any early freeze. An early freeze can significantly influence peanut yields and quality.”
The Department of Soil and Crop Sciences is wrapping up a $2.2 million renovation that has been ongoing for the past several years. Two teaching labs, the 1st and 4th floor baking labs, the distance teaching classroom and two bathrooms were upgraded as part of this project.

“We really appreciate the Provost’s involvement with this project,” said Dr. David Baltensperger, department head. “We could not have done as much for our students without that assistance.”

The teaching labs, rooms 113, 114, 531 and 532, were all gutted and received upgraded equipment, new countertops and benches in the labs, new lighting and flooring, dropped ceilings in the classrooms and other upgrades.

“The renovations not only upgraded and modernized our soil microbiology teaching laboratory facilities, but they also nearly doubled the number of students we could accommodate in each lab section,” said Terry Gentry, Ph.D., a professor in the soil science program.

In room 114 alone, which accommodates SCSC-205, 309, 402 and 432, the upgrades increased student capacity from 16 to 41. In 113, used by SCSC-301 and 446, and sections of 205, capacity was increased by a third - growing from 24 to 32.

The food labs, 117 and 424, are part of the Cereal Quality lab lead by Dr. Joseph Awika. Updates include analytical and food processing equipment, and additional power/internet accessibility. The new tables are easily moved to allow flexibility in classroom setups.

“The upgrades support the Provost’s commitment to provide up-to-date facilities for students across the campus,” said Audrey Girard, Ph.D., Associate Research Scientist in the Cereal Quality Lab.

Renovations made to Heep Center

In 224, the dropped ceiling improved lighting and acoustics for the students in the distance program as well as those in the classroom.

Right and below: As with most of the rooms, 532 was gutted and redone from top to bottom. Capacity was increased from 16 to 36 students. One of the first projects completed, these rooms have been back in use for almost 2 years.

Updated analytical equipment, an updated tortilla oven, a deck oven for pizza and flatbreads and a revolving oven with higher capacity are just some of the renovations to the food labs.
When you mention “harvest” most people envision large machinery rolling through a field gobbling up whatever lies before them, dumping the “good stuff” in the hopper and blowing the “unwanteds” out the back.

For crop breeders, harvest often includes stop and go machinery collecting only a few rows at a time or a crew walking through the fields, carefully bagging a few select specimens.

The labor-intensive harvest provides researchers with the best opportunity to improve their crops and possibly find the “next great thing” for agriculture.

Mitchell Kent, a Master’s student in the Department of Soil and Crop Sciences, collects data for each plot in the biomass sorghum field (above). Sensors on the harvester collect fresh weight and moisture percentage while a near infra-red spectroscopy (NIR) machine provides data on traits such as lignin, protein, cellulose and more.

Each pile of greenchop (below) indicates where a reading was taken. This harvester, with its technology, saves hundreds of labor hours and greatly increases the team’s ability to evaluate the biomass sorghum.

Dr. William Rooney and his crew select plants from the breeding nursery to be advanced for further evaluation and testing in the sorghum breeding program.

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Left: Graduate students in Dr. William Rooney’s program with selected panicles. From left to right are: David Horne, Jales Fonseca, Daniel Crozier and Ammani Kyanam.

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Above left: Dr. Seth Murray and students in his program harvest corn from a breeding trial. In this field Murray made controlled crosses of two inbred lines to produce experimental hybrids for yield trials.

Above: Graduate student, Nathalia Penna-Cruzato aids in the harvest. The different colored paper bags help the researchers keep track of the number of each specific cross was made.

Left: Visiting scientist Dr. Sofija Bozinovic, a corn breeder from Serbia, braved the Texas heat to help with the harvest.

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Students in Dr. Steve Hague’s cotton breeding program harvest cotton two rows at a time from a field at the Texas A&M University Farm in the Brazos Bottom. Yields were adversely affected by the dry weather this year, which is one of the risks faced by crop researchers.

Above left: Braden Tondre, Caitlyn Lakey, Connor Destefano and Blake Smith bag and tag the cotton to identify the plants from which the bolls were harvested.

Above right: Braden Tondre and Connor Destefano clean the header between research plots.

Left: The bags of cotton are taken to Dr. Hague’s gin for processing.

Dr. Hongbin Zhang, Dr. Meiping Zhang and Gali Bai, a graduate student in Hongbin’s breeding program, harvest crosses made in their gene-based breeding (GBB) program.

GBB is an extremely powerful and efficient plant breeding method which utilizes a plant’s number of favorable alleles (NFA), single nucleotide polymorphisms (SNP) and other DNA variations, and expression profiles to allow a breeder to select the most desirable breeding parents for a specific breeding objective.

Hongbin Zhang and his team have been using GBB since 2014 and have been working to decipher the molecular basis of heterosis for more than 15 years.

Colby Ratcliff examines corn harvested from Simplot’s fields at the Texas A&M University Farm in the Brazos Bottom. The company has leased fields to conduct yield research for corn varieties.

Ratcliff is working for Simplot while completing his Master’s in Agronomy under the supervision of Seth Murray, Ph.D.
A turfgrass project aimed at finding a water-smart alternative to Bermuda and fescue grasses for the High Plains has been installed in front of the 1938-vintage “white house” at Bushland. The original headquarters of the Conservation and Production Research Laboratory, this facility is now jointly operated by the U.S. Department of Agriculture-Agricultural Research Service and Texas A&M AgriLife Research.

The project, titled Zoysia Turfgrasses for Residential and Commercial Landscapes in the Texas Panhandle, will be conducted by Dr. Brent Auvermann, AgriLife Research center director, Amarillo; Dr. Ambika Chandra, AgriLife Research turfgrass breeder, Dallas; and Dr. Gary Marek, USDA-ARS research agricultural engineer, Bushland.

This demonstration will have a state-of-the-art irrigation system and two varieties, “Chisholm” and “Innovation,” recently released by Chandra and Dr. Jack Fry, Kansas State University turfgrass science professor, Manhattan, Kansas.

Zoysia, compared to other warm-season turfgrasses, generally produces higher quality turf requiring fewer inputs like mowing, nutrients and chemicals due to its natural tolerance to disease, insects, shade and salinity stress, Chandra said.

She has been breeding freeze-tolerant zoysia grass varieties as part of an ongoing project since 2003 with Kansas State.

“While zoysia’s low input requirements, strong shade tolerance and salinity tolerance make it an attractive option for use across the U.S., most species are still found in the southern U.S. due to low tolerance for freezing temperatures,” Chandra said.

The Dallas Center’s turf breeding program produced 640 zoysia hybrids in 2004 and sent them to Kansas to be evaluated for cold tolerance. The breeding lines that survived the cold were evaluated for aesthetic quality and a range of other characteristics, Chandra said.

Chisholm, licensed to Carolina Fresh Farm, is a medium-texture zoysia that is cold hardy into the northern region of the U.S. transition zone. It features rapid establishment and recovery rates as well as superior turf quality compared to Meyer zoysia. Chisholm underwent testing in the National Turfgrass Evaluation Program’s 2002 Zoysiagrass Test as DALZ 0102.

Innovation, originally KSUZ 0802 and licensed to Sod Solutions, features finer leaf texture and superior density to Meyer. It is a good option for landscapers and end users in the transition zone and beyond who are looking for a cold hardy hybrid for golf courses, yards, parks and commercial establishments.

“I expect both of these varieties to not only survive the Texas Panhandle climate, but to produce good turfgrass quality with limited resource input,” Chandra said.

Auvermann said half the sod in the Bushland side-by-side variety comparisons was laid on existing soil; the other side on existing soil amended with composted cattle manure to test what role fertility and organic matter have in its survivability.

“We think the zoysia grass will provide an alternative for landscape contractors for both residential and commercial markets,” he said. “Zoysia grasses act a little bit like Bermuda grass in that they creep and repair themselves. They also use less water than the fescues typically used for the landscaping projects in the Texas Panhandle.”

Traditionally, Marek said, there are three grass varieties available to homeowners for turfgrass – fescue, Bermuda and buffalo grass, with fescue using the most water. Fescue greens up earlier and stays green longer than other varieties, so aesthetically, it is generally more pleasing.

“However, fescue can use up to a half-inch of water per day on hot, windy days typical of the Panhandle summers,” he said.

“One of the benefits we hope to evaluate in this trial is to see if these zoysia varieties can compare to fescue grass in aesthetics while using less water,” Marek said.

In addition to the water use, the other aspect of the project is to determine how well the zoysia grass overwinters in the colder climate of the Panhandle, Marek said.

“If these two varieties prove adapted to our climate, as we expect, they ought to use significantly less water than our typical tall fescues, heal themselves, withstand the winters and maintain a luxurious, fine-bladed turf,” Auvermann said.

This project is funded in part by the federal Ogallala Aquifer Project.
Texas wheat acres are being prepared and planted, and despite fewer acres, projections are for a high-yield 2020. U.S. Department of Agriculture planting projections suggest producers will plant 1% less wheat than last year nationally. Last year, around 4.5 million acres of wheat were planted in Texas.

But the USDA expects acres to produce significantly higher yields compared to 2019. Hard red winter wheat, which is the class most Texas acres are planted with, is expected to produce almost 27% more wheat than last year in the U.S.

**Wheat performance**

Calvin Trostle, Texas A&M AgriLife Extension Service agronomist, Lubbock, said wheat research and breeding programs have produced varieties that perform significantly better when it comes to yields and drought, disease and pest tolerance.

“Wheat varieties are better than ever,” he said. “Wheat breeders have been very successful. Nothing planted 20 years ago would be picked to plant today.”

Variety performance is one thing Trostle attributes to the high U.S. stocks of grain wheat. Early stocks were at 462 million bushels, which is double historic averages.

“More wheat on hand tells us why wheat prices are suppressed,” he said. “U.S. and international supplies are up. We’re growing more grain on fewer acres, and other countries are producing more wheat than in the past as they utilize better techniques and technology.”

Low grain prices resulted in a growing number of producers choosing to graze out wheat fields this year, Trostle said.

“Usually producers will stop grazing around March 15 in the Texas High Plains to go to grain,” he said. “That date gets earlier and earlier the further south and east you go. But with grain prices what they have been, we’ve seen more producers decide the value of having calves grazing on wheat four to six weeks longer is higher.”

**Just add rain**

Weather will continue to be a major question mark for wheat producers when it comes to planting, acres and ultimately yields, Trostle said.

Producers prefer to plant in soil with some moisture, he said. But most of the wheat-producing regions of Texas are dealing with short levels of moisture.

September is typically the second wettest month for Texas’ wheat belt – High Plains and Rolling Plains – but the season has been scattered and delivered less than usual, Trostle said.

Trostle said producers in the High Plains typically plant wheat Sept. 1-Sept. 15 in the hopes of providing winter forage for cattle as early as possible. Irrigated wheat is on schedule, and some dryland producers have put seed in dry soil and are waiting for rain.

“They can wait for rain. The seed will be fine if it sits for a while,” he said. “It may just be a little later for grazing than producers prefer.”
Welcome Back, students!

As the new semester began, Soil and Crop Sciences faculty and staff welcomed students back with donuts, juice and coffee. Some took time to stop and chat, while others carried them off to enjoy during class. Instruction office staff, LeAnn Hague and Taylor Atkinson, provided 18 dozen donuts which rapidly disappeared.

Texas Wheat Producers Board and small grain workers meeting

Members of the Texas Wheat Producers Board and small grain growers from across the state recently gathered in the Scott’s Miracle-gro Turf facility in College Station for their annual meeting.

In addition to a recap of the 2019 wheat crop, the group heard about recent research in wheat breeding, milling and baking quality performance, and more from Soil and Crop Science faculty, staff and graduate students.

Above: Members of the Texas Wheat Producers Board
Left: Brian Simoneaux demonstrates how seeds are packaged planting in the variety trials during the Board’s tour.
Bottom: Jorge Valenzuela presented his research on mapping wheat traits during the meeting.

Above: Dr. David Baltensperger, Dept. Head - Soil and Crop Sciences, welcomes the small grains producers to the annual meeting.

Left: During the Texas Wheat Board’s tour of our facilities, Geraldine Opena demonstrated how wheat heads selected from F4 generation plots are threshed in the single head thresher. These seeds will be planted in McGregor for further screening for disease resistance and other traits.
2019 Soils Critique

Soils researchers and students from Texas A&M University gathered in College Station recently for the 2019 Soils Critique. This event gives them an opportunity to share research and information about a variety of soil related topics.
Management Strategies for Sustainable Cattle Production in Southern Pastures

Four faculty members in the Department of Soil and Crop Sciences are authors or co-authors in this book, which was edited by Monte Rouquette, Professor of Forage Physiology at the Texas A&M AgriLife Research and Extension Center in Overton, and former student Glen Aiken, Director, University of Florida Research and Education Center - Quincy.

Drs. Larry Redmon, Vanessa Corriher-Olsen, Gerald Smith and Rouquette all contributed to this reference which provides strategies to optimize cattle welfare and to help improve the sustainability of pastures.

The book is now available at https://www.elsevier.com. Use promo code FOOD319 for a special discount and free shipping!

It’s a GIRL!

Olivia Gene Goncalves was born August 12.
She is the first child of Oneida Ibarra and her husband, Jimmy Goncalves.
Her mom works as a Research Assistant in the Genome Editing Lab under Dr. Michael Thomson.

Congratulations to the new family!

Sympathies and Concerns

Nancy Harris and her family as they celebrate the life of her sister, Nettie Mae Clay. Nancy is a business associate in the main office in College Station.

Dr. Mike Foster as he recovers from surgery to repair a broken hip incurred when he fell in early August.

The family of Dr. Murray Milford who passed away in August.

Please keep these members of our Soil & Crop Sciences family in your thoughts and prayers.
Calendar

October
Sept. 30 - Oct. 1 - Bennett Trust Women’s Conference, Fredericksburg
3-4 - Genome Editing Symposium, College Station
3-4 - Surface Mine Reclamation Workshop, Best Western, Bryan
8 - Texas Watershed Stewards, Corpus Christi, TX  Contact: Michael Kuitu - mkuitu@tamu.edu
9 - TAMU Turfgrass Field Day, College Station  Registration: https://agriliferegister.tamu.edu/turf
11 - SCSC Harvest Festival
15 - World Food Prize
15 - Lone Star Healthy Streams, Refugio, TX  Contact: Matt Brown - matthew.brown@tamu.edu
16 - The Tale of Two Playing Surfaces, Frisco, TX  Contact: Chrissie Segars - chrissie.segars@ag.tamu.edu
   Registration is open: https://agriliferegister.tamu.edu/productListingDetails/2899
21-25 - Ranch Management University, College Station
   Register at: https://agriliferegister.tamu.edu/productListingDetails/2805
25 - SCSC 4th annual SECC Chili Cook-off  Contact: Barbara Childress: bchildress@tamu.edu
28-31 - Council for Agriculture Science and Technology board meeting
28-30 - Texas State Soil and Water Conservation Board Annual Meeting, San Antonio
   preregistration open now: https://www.tsswcb.texas.gov/annual-meeting-swcd-directors
29-30 - Texas Weed Information Group (TWIG) meeting, Scotts Miracle-gro facility

November
9-15 - ASA, CSSA, SSSA meeting, San Antonio
12 - Soil and Crop Sciences Mixer at ASA - Hard Rock Cafe, San Antonio 5:30-7:30
15 - Lone Star Healthy Streams, Matagorda, TX  Contact: Matt Brown - matthew.brown@tamu.edu

December
9-12 - American Seed Trade Association CSS (Corn,Sorghum, Soybean and Wheat), Chicago, IL
https://www.betterseed.org/events/asta-css-seed-expo/
10-11 - Texas Plant Protection Association annual conference, Bryan, TX  www.texasplantprotection.com
16-17 - Faculty Retreat - College Station
23-January 1, 2020 - Closed for the holidays

Save the Date
January 8-10 - 2020 AgriLife Conference, College Station, TX
February 20, 2020 - Plant Breeding Symposium
March 2-4, 2020 - Biannual Plant Resistance to Insect Symposium at CIMMYT, Texcoco