

Nueces Agriculture

"IMPROVING FOOD & FIBER PRODUCTION"

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Cotton: Fun Facts

cotton.tamu.edu

One Bale of Cotton Can Make:



215 Jeans
249 Bed Sheets
409 Men's Sport Shirts
690 Terry Bath Towels
765 Men's Dress Shirts
1,217 Men's T-Shirts
1,256 Pillowcases
2,104 Boxer Shorts
2,419 Men's Briefs
3,085 Diapers
4,321 Mid-Calf Socks
6,436 Women's Knit Briefs
21,960 Women's Handkerchiefs
313,600 \$100 Bills



"Texas Is Like A Whole Other Country"

Texas leads the U.S. in cotton production, and it is our leading cash crop, ranking only behind the beef and nursery industries in total cash receipts. Texas annually produces about 25% of the entire U.S. crop and plants over 6 million acres! That's over 9,000 square miles of cotton fields.

PRIVATE APPLICATOR TRAINING

When December 5, 2023

Time 8:30 AM

Where. A&M AgriLife Ext. Office,

Call to Pre-Register (361) 767-5223

710 East Main, Ste. 1, Robstown, TX

Fee: \$50.00 (Includes study manuals)

A Private Applicator is defined by law as a person who uses or supervises the use of a restricted-use or state-limited use pesticide for the purpose of producing an agricultural commodity.

Fall CEU Conference

(See flyer on page 2 for more info)

Texas A&M Agrilife Research and Extension Center
10345 Hwy 44, Corpus Christi, TX
Wednesday, October 4, 2023
8:00am - 3:30pm

Participation fee of \$35 for online participation or \$50 for in person with lunch. Seating is limited. Tickets can be purchased on Eventbrite.

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EXTENSION



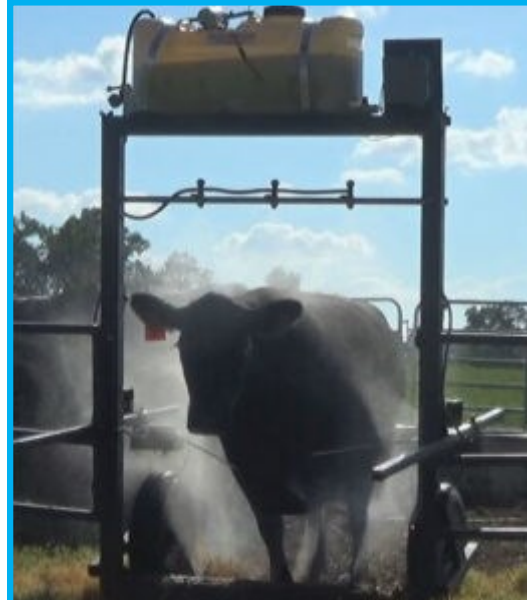
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2023 FALL CEU CONFERENCE

TEXAS A&M
AGRI LIFE
EXTENSION

Texas A&M Agrilife Research and Extension Center

10345 Hwy 44

Corpus Christi, TX

Wednesday, October 4, 2023 8:00 – 3:30pm

This years conference will include sessions of interest to those involved in Range Management , Row Crop Production and Livestock Production.

5 CEU's will be offered.

5 CCA's have been requested

Participation fee of \$35 for online participation or \$50 for in person with lunch. Seating limited.

Highlighted Topics include:

- Weed and Brush Management
- Pesticide Laws and Regulations
- Row Crop and Pasture Pest Management
- Internal and External Pest Management
- Global and Domestic Market Outlook

Please register at:

<https://www.eventbrite.com/e/2023-fall-ceu-conference-tickets-696645484397?aff=oddtcreator>

or by calling Josie at 361.767.5223 on or before October 2nd



The members of Texas A&M AgriLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity and will strive to achieve full and equal employment opportunity throughout Texas A&M AgriLife

USDA awards \$2M grant to Texas A&M Kingsville to prepare the next generation of agricultural leaders

By: Javelina News June 23, 2023; last updated July 31, 2023

KINGSVILLE — Texas A&M University-Kingsville has been awarded a \$20 million grant by the United States Department of Agriculture to establish a collaborative, 5-year program that will help Hispanic students learn the skills needed to enter the workforce in an agricultural-related career. It is the largest single grant the university has received in its near 100-year history.

The grant award comes as part of a \$262.5 million dollar investment in higher education institutions as part of President Joe Biden's Inflation Reduction Act. The National Institute of Food and Agriculture's (NIFA) "From Learning to Leading: Cultivating the Next Generation of Diverse Food and Agriculture Professionals Program" will oversee the 33 project partners granted through this effort which are comprised of 1890 Land-grant Universities, 1994 Tribal Colleges and Universities, Hispanic-serving Institutions (HSI), Alaska Native-serving and Native Hawaiian-serving Institutions.

Texas A&M University-Kingsville's grant, titled Leading Hispanics to Federal Agency Employment (LEADING: Leading and Enhancing Agricultural Development in the Next Generation), will fund a program at the university and its partnering institutions to create a pathway for students from high school, through to undergraduate and graduate programs and into food, agricultural, natural resources, and human sciences (FANH) careers. The programs will offer students mentorship, professional and personal development opportunities and the chance to develop bilingual skills.

"This is an incredible and historic achievement for Texas A&M-Kingsville and the students who will benefit from the program this grant funds," said Texas A&M University-Kingsville President Dr. Robert Vela. "It reflects the tremendous outreach work led by our faculty, who are dedicated to ensuring their students' success through enhancing scientific and technical skills and creating networks of opportunity for students. This program will not only improve retention and graduation rates but also increase USDA career placement of Hispanic students and prepare students to work in this vital sector of our economy."

The grant will also allow each institution to take turns hosting a symposium and career fair on their campuses with USDA agencies attending to interact with students and the community.

"We are honored by the confidence and trust the USDA places in our faculty at TAMUK and partnering Hispanic Serving Institutions as they have demonstrated how to prepare, train and lead an increasing number of students towards employment in the U.S. Department of Agriculture and other Agriculture-related careers," said Dr. Shad Nelson, dean of the Dick and Mary Lewis Kleberg College of Agriculture and Natural Resources.

"This grant is a game changer for South Texas in advancing the Next Generation of students towards graduate degrees that will result in making future great and positive differences in the workforce of higher education and federal agencies."

Dr. Natasha Mast, associate professor of animal science and ruminant nutrition, is the project director for the grant and the university will partner with fellow Hispanic-Serving Institutions (HSIs) Texas State, New Mexico State University and University of Puerto Rico-Mayagüez. Project co-directors at each partnering institution are Dr. Merritt Drewery at Texas State University, Dr. Clint Löest at New Mexico State University and Dr. Esbal Jimenez at University of Puerto Rico-Mayaguez.

"Through a collaboration of four institutions, my team (Jimenez, Löest and Drewery) and I have strategically designed the LEADING Hispanics program to develop and sustain the next generation of the Hispanic food, agriculture, natural resources, and human sciences workforce and build awareness of the processes and pathways leading to training opportunities and employment in the federal sector," Mast said. "We are beyond excited for the opportunities we will be able to provide to our students as a result of this funding. LEADING Hispanics will change the lives of our students in extraordinary ways and we can't wait to see the impact it has on their lives and their future successes."

Right to farm and ranch set as Prop 1 on November ballot

Texas Farm Bureau; Texas Agricultural Minute August 4, 2023

(WACO, Texas)—The right to farm and ranch in Texas is set as Proposition 1 on the Nov. 7 General Election ballot.

The proposition is supported by Texas Farm Bureau (TFB).

“It’s great to have a proposition number for the right to farm and ranch constitutional amendment. There are 14 propositions on the ballot, so it is very helpful to remind voters which proposition is the right to farm and ranch constitutional amendment,” TFB President Russell Boening said. “The proposition number will be an important part of messaging going forward as we promote this monumental opportunity to protect the future of Texas family farms and ranches.”

On the ballot, Prop 1 will read:

“The constitutional amendment protecting the right to engage in farming, ranching, timber production, horticulture, and wildlife management.”

The constitutional amendment is a once-in-a-generation opportunity to protect farming and ranching and the future of food security in the state.

“Prop 1 isn’t about protecting the past. It’s about ensuring Texans’ access to safe and affordable food in the future,” Boening said.

In Texas, about 97% of farms and ranches are owned and operated by families, and one in seven Texans has a job related to agriculture. That shows how vital farming and ranching are to a healthy Texas.

“The amendment protects all farmers and ranchers—large and small. Only responsible, normal day-to-day agricultural practices are protected, not practices employed by bad actors,” Boening said.

But the state loses over 240,000 acres of agricultural land each year to development, according to a recent study, making Prop 1 even more important. It ensures the land, natural resources, livestock, and wildlife are protected, too.

The proposition needs a majority vote to pass.



One out of seven jobs in Texas is related to the food and fiber system. Proposition 1 ensures the economic benefits of agriculture for our state continue, especially for rural communities and small family farms and ranches.

Texas has lost more than 2 million acres of farm and ranch land in the last quarter-century. Proposition 1 maintains the legacy of agriculture in our state by protecting the right to farm and ranch.

Farm Bill talks struggle for traction as expiration deadline looms

By: Markie Hageman Jones, AgDaily August 25, 2023

The Sept. 30 deadline to reauthorize a new farm bill before the current one expires is looming. Congress predicted from the beginning that it may spill over into October or November of this year before any negotiations were resolved, however, a few were hopeful that talks would speed up. Nutrition program SNAP is a major point of contention between political parties every time a farm bill is set to renew, and this time around, differences between party lines could hinder any timely forward movement.

This is the first farm bill projected to cost in the trillions: \$1.5 trillion to be exact. As of the date this article is published, here is where the farm bill reauthorization stands:

Congress has been in recess all of August. While this recess takes place, lawmakers from both the House and Senate vowed to work on their versions of the draft. But, busy schedules with other legislation needing to be negotiated, and hurdles surrounding Congressional Budget Office (CBO) scores are delaying things. The CBO determines financial estimates on farm bill programs.

House chairman Glenn Thompson shared at the recent Penn State Ag Progress Days, “I think there’s going to have to be an extension only because there’s a lot of moving parts.” While Thompson expressed hope that it would be a short term extension, he also said, “Nothing is absolute. Floor time, Senate action, and the politics of the day are all considerations of whether an extension will ultimately be necessary.”

The first step into getting a new bill approved is for both the Senate and House to present each their own versions of the bill, with the laws written the way they prefer. This hasn’t happened yet, and whenever it does, it isn’t likely to be agreed upon immediately. This isn’t to say the drafts aren’t already completed — there are talks that lawmakers are saying the House draft is ready, according to Politico. All of Congress has to agree on what parts of each individual bill to include into the final draft.

Furthermore, the looming federal shutdown on Oct. 1 impacts any talks following the deadline as well.

Senate Ag Committee aides are hopeful about October, but Chairwoman Debbie Stabenow (D-Mich.) believes it could be pushed toward December.

“The committee is continuing to work toward a bipartisan bill that can be signed into law by the end of the calendar year,” she said. “It is not uncommon for Congress to pass the September 30 deadline without passing an extension of the Farm Bill. This is what happened in 2018, when Congress did not pass an extension, and the Farm Bill was signed into law in December.”

Conflict over the EATS Act — which would prevent states with strict requirements from also enforcing their laws on outside states — is substantial, with 171 bipartisan members authoring a letter sharing their concerns over including this legislation in the farm bill, “We write today expressing our strong opposition to including H.R. 4417, the Ending Agricultural Trade Suppression (EATS) Act, or any similar legislation in the 2023 Farm Bill. Modeled after former Representative Steve King’s amendment, which was intensely controversial and ultimately excluded from the final 2014 and 2018 Farm Bills, the EATS Act could harm America’s small farmers, threaten numerous state laws, and infringe on the fundamental rights of states to establish laws and regulations within their borders.”

The letter continues, “This is not a case of California imposing its standards on other states. Producers in any state can choose not to supply another state’s consumers or to segregate animals for different markets. Pork industry economists noted this in an amicus brief, writing, ‘Only those producers for which compliance with Proposition 12 is economically beneficial will choose to do so, while all others will continue to supply the vast majority of the North American pork market beyond California’s border and face little or no economic impact.’”

If a new bill isn’t agreed upon before the end of the year, commodities will start to be affected, beginning with the dairy industry, on January 1. This means policies would revert back to price supports and production controls adopted in the 1940s.

Zero weevils remains goal for Texas boll weevil eradication

Boll weevil battle continues along the Rio Grande Valley.

By: Ron Smith; Farm Progress August 18, 2023

A mere 135,000 acres in the Lower Rio Grande Valley represents the last holdout for the boll weevil, a pest that laid waste to millions of acres and accounted for millions of dollars in lost income to U.S. cotton farmers for most of the 20th Century.

The persistent pest is not going away without a fight.

“We struggled a little bit this year,” says Patrick Burson, chief administrative officer, Texas Boll Weevil Eradication Foundation and a veteran of 27 years in the battle to rid Texas of the boll weevil.

“Go back to this time last year,” Burson says. “Things really looked awesome. Up to July 30, the program captured a total of 112 weevils. But in late August a field south of MacAllen, for no apparent reason, blew up on us. In a three-week span we got weevil reproduction that went undetected. Some 3,500 weevils were captured in that one field. That set us back a little but remediation steps got numbers under control.”

Always surprises

He says dealing with Mother Nature always comes with surprises.

Burson also notes that working with cotton producers in Tamaulipas, Mexico, had begun to help bring numbers down. “We have worked closely with Tamaulipas since 2016. Texas BWEP provides technical expertise. The point is to work with them, to have them do the same things we’re doing in the U.S., follow the same protocols.”

He adds that the Mexican cotton industry struggles with funding. “We were able to locate some funds through the North American Plant Protection Organization. Funding for Mexican cotton growers is good for the U.S. cotton industry.”

That late-season blow-up, Burson says, carried over into 2023. “In December 2022, we started capturing weevils in places where we had not captured any in a year or two. A lot of the LRGV acreage is clean. We still have a battle along the Rio Grande.

He says part of the problem stems from missed treatments in Mexico last year. “Failure to treat fields with hostable plants allowed weevil populations to build.”

Migration

He says a large number of weevils migrated into the Valley south of McAllen in the first four months of 2023. “At the beginning of the ‘23 season we started capturing weevils scattered all over.”

He says reproductive situations typically are limited to a small area. “We were catching single weevils across the region.”

From January 1 through April 1, the program caught 1,126 weevils “before we had cotton in the ground. We were dealing with migration issues and trying to get Mexico up to speed and following protocols, including timely treatments.”

Burson applauds LRGV cotton farmers for their efforts. “They do a good job. They trap all year long because weevils we trap in the winter we don’t have to worry about in the field.”

Making progress

Burson says the program is making progress. “Things are going okay but could be better. Weather events or other issues set us back. We dealt with that this year.”

Burson sees the last bastion of weevil infestation as a different challenge than was the case across the Cotton Belt, where the pest is no longer a threat.

“The LRGV is a different beast. It is the one place in the state, and in most of the country, that normally has no killing freeze. It’s a big battle but producers do a good job.

Stalk destruction

“Stalk destruction is a key. Our rainy season runs from August 15 to September 1. Wet conditions in September and October extend the period with hostable plants. The longer the host-free period we have, the better.”

Stalk destruction deadline is September 1.

“As long as growers get stalks cleaned out and starve the weevils, we’re in good shape. If we go past that deadline, rainy spells allow cotton vegetation to hang on for two or three weeks. That’s devastating for reproduction potential. When it’s raining, it’s hard to conduct program operations.”

Burson says producers adhere to the stalk destruction protocols and deadlines “for the most part. Sometimes a handful don’t want to follow the rules. A few producers might leave stalks too long or plant too late. Some need to do better; most do a great job.

“To be advantageous to all growers, the rules are necessary. We’re not making decisions for individual growers but for all growers.”

Weather factors

Burson said Hurricane Hannah shredded a lot of two- and three-bale cotton in 2021. “The year’s long host-free period helped move the program forward.”

Looking ahead, he says the program will continue to battle the same things, including weather.

No Malathion resistance

Burson also notes that ongoing trials indicate boll weevils have not developed resistance to Malathion, the insecticide used to treat them. Tests show “boll weevil does not become resistant to Malathion.”

Burson also praises BWEP staff. “Staff in the Valley fight battles every day. They are doing what they need to do.”

He contends that the eradication program has kept cotton production viable in Texas and across the Cotton Belt.

“The program is a blessing. I’m not sure we would have cotton in Texas without it,” he says.

Challenges remain. “Weather can set us back.” He says working with Mexico will be an important factor, as well.

“We keep fighting, and we have a lot of good producers in Texas. The goal is zero weevils. We will get there as fast as we can.”

Long road to eradicate weevils

Below is a short history of the boll weevil eradication program excerpted from the Texas Boll Weevil Eradication Foundation, Inc. website (TBWEF - Home (txbollweevil.org)).

Based on [research] a special study committee of the National Cotton Council of America concluded it was technically and operationally feasible to eradicate the boll weevil. The subsequent success of the three-year boll weevil eradication trial, initiated in 1978 on 32,500 acres in North Carolina and Virginia, led to the creation of the southwestern and southeastern boll weevil eradication programs.

The Southwest Boll Weevil Eradication Program was implemented in 1985 to eradicate the boll weevil from about 233,000 acres in western Arizona, southern California and northwest Mexico. In 1988, the program expanded to include 320,000 acres of cotton in central Arizona. Eradication in southern California and western Arizona was completed in 1987, and in 1991 in central Arizona. The Southeast Boll Weevil Eradication Program was designed to eradicate the boll weevil from about 500,000 acres of cotton in the remaining part of North Carolina and in northern South Carolina. This was followed in 1987 with a program in the remainder of South Carolina and in Florida, Georgia and southern Alabama.

The Southeast program also maintained previously eradicated areas in Virginia and the Carolinas as part of a post-eradication plan. A buffer zone on the western edge of the eradication area was also maintained to prevent boll weevil populations from returning to eradicated areas. The Southeast program has since expanded to eastern Mississippi, middle Tennessee and the remainder of Alabama.

The Texas Boll Weevil Eradication Foundation Inc. was established by the Texas Legislature in 1993. The cotton-producer-run, nonprofit foundation governs and oversees the implementation of the boll weevil eradication program in Texas.

The Southern Rolling Plains zone was the first area to start the program on 220,000 acres in the fall of 1994, and was declared functionally eradicated, the first zone to achieve eradication, in September 2000. The Rolling Plains Central zone was declared functionally eradicated in February 2002.



War, weather and higher cost keeping grocery bills high

By: Austin Denean; The National Desk August 15, 2023



WASHINGTON (TND) — Cooling inflation overall has brought little relief to people checking out at the grocery store as food prices have remained high and could stay that way as extreme weather, war in Ukraine and higher costs for producers add up at the cash register.

Food prices are always volatile, but the combination of disruptions playing out around the world are adding up and risk delaying inflation returning to normal levels.

Grocery prices rose by .3% in July after declining an average of .1% from March to June. The jump in prices is much slower

than last year when the cost for groceries grew an average of 1% a month through September but remains uncomfortably high for consumers to spend on something that can't be cut out of budgets.

Taken along with a 30-cent increase in the cost of a gallon of gas in recent weeks, higher prices at the grocery store are putting a strain on wallets and risk keeping inflation high. Food and energy prices are excluded from so-called “core” inflation due to their volatility but are still factored into the consumer price index that gives an overall view of inflation and are the most obvious signs to the typical consumer.

Also putting upward pressure on prices is higher labor costs for workers. The labor shortage after the pandemic-induced recession sent wages higher as workers tried to keep pace with inflation and had leverage with employers to demand higher pay.

Demand for labor and the cost of it has slowed this year as overall inflation has come down, but it is still more expensive for businesses to attract and maintain workers than it was prior to the pandemic.

“That's part of explaining why we have high prices and why we have prices that aren't dropping back to what they were, say five or six years ago,” said David Anderson, professor and AgriLife Extension economist at Texas A&M. “We have demand for those products, costs are higher, so prices are higher.”

Increased labor and production costs are mostly factored into food prices at this point but make it likely that pre-pandemic costs for most food items will not be returning.

“It's kind of hard to go back like that when the fundamental production costs are higher for stuff. It's hard to go back to prices that reflect a lower cost structure,” Anderson said.

Extreme heat, wildfires and drought have also hampered the yield of crops in the U.S. and other parts of the world, meaning there is less food to bring to the market, another factor that helps drive up prices.

Beef is particularly impacted by drought as ranchers have had to reduce their herd sizes to adjust to less grass to feed their cattle. Smaller herds results in less beef, making prices go up as demand from consumers remains constant.

Some crops are also being affected by a lack of rain or extreme heat that can result in lower yields.

“The hot weather, drought, some of these things are likely cutting into the yield potential of some of our crops,” Anderson said.

Russia’s invasion of Ukraine could also contribute to higher prices after the Kremlin pulled out of a deal allowing Ukrainian grain to be exported. The International Monetary Fund estimates the withdrawal from the deal could push grain prices up by 10% to 15%.

The effects of the invasion are not expected to be as severe as during the first year of the war that also came during record-high inflation in many parts of the world, though it will likely make it harder for central banks to bring inflation back to 2%.

For countries outside the U.S., food inflation has remained much higher and harder to get rid of. In the U.K., food prices were 17.4% higher than the year before in June and 8.9% higher in Japan, compared to 4.6% in the U.S.

“It likely has less effects on us as (U.S.) consumers as it as it does in some food-insecure countries in places where they spend a much larger proportion of their money on food to survive,” Anderson said. “We are more insulated.”



Eating tendencies of Brahman steers can affect meat tenderness

Journal report indicates economic and biological efficiencies affected by feed intake
AgriLife Today July 20, 2023

The dependence of residual feed intake on growth and tenderness of Brahman cattle, a common breed chosen for crossbreeding cattle along the southern U.S., including Texas, was the focus of a cattle feeding study published in *Applied Animal Science* journal.

The study, “Relationships of residual feed intake and residual average daily gain with carcass traits and growth of Brahman steers,” illustrates the impact residual feed has on physiological traits of Brahman steers in the Gulf Coast states, according to researchers.

Residual feed intake is the difference of actual feed intake from expected feed intake of an animal for its size and is used to determine what amount of feed is necessary to maintain body weight and/or weight gain.

Monte Rouquette, Ph.D., Texas A&M AgriLife Research forage physiologist, was lead author and conducted the study at the Texas AgriLife Research and Extension Center in Overton. Other collaborating researchers included Joe Paschal, Ph.D., retired Texas A&M AgriLife Extension Service livestock specialist and currently executive vice president for the American Brahman Breeders Association, College Station; Tanner Machado, Ph.D. animal scientist in the Department of Animal Science and Veterinary Technology at Texas A&M University-Kingsville; Charles Long, Ph.D., resident director, Overton, and David Riley, Ph.D., College of Agriculture and Life Sciences Department of Animal Science, College Station.



“This was truly a team effort of research scientists,” Rouquette said.

Results showed a linear relationship between the tenderness of meat to a steer’s residual average daily gain. The most efficient steers grow rapidly, provide satisfactory maturation for harvest and typically produce a tender carcass, Rouquette said.

Results showed a linear relationship between the tenderness of meat to a steer’s residual average daily gain. The most efficient steers grow rapidly, provide satisfactory maturation for harvest and typically produce a tender carcass, Rouquette said.

Feed intake, performance outcomes

“The objectives of this study were to measure feed efficiency data for yearling Brahman bulls and to determine the relationship of these efficiency groupings to growth, feedlot performance, carcass traits, and tenderness of Brahman steers,” Rouquette said.



Rouquette said it was Randel's concept to evaluate Brahman bulls for feed efficiency.

"We asked the question, 'are these bull calves potential sires or steers?' At certain ages, scrotum circumference was measured, semen quality was evaluated as well as temperament," he said.

There was also further intrigue from the results of the study since Brahman cattle are crossbred throughout the southern Gulf Coast.

"The Brahman crossbred cow has proven attributes of reproductive efficiency, longevity, and for adaptation to the vegetation and climatic conditions of the Southwest and Gulf Coast States," Rouquette said.

Results showed there is a linear relationship between the tenderness of meat to a steer's residual average daily gain, he said. The most efficient steers grow rapidly, provide satisfactory maturation for harvest and typically produce a tender carcass.

The results collected from the Warner-Bratzler Shear Force measurement method indicated, "all steaks of Brahman steers were considered 'tender' and not 'tough' by these measurements," Rouquette said.

Results from this study introduced efficient ways to conduct and maintain Brahman cattle from birth to steak.

"From breeder, producer to consumer, implement management strategies for the most efficient production on pastures prior to cattle entering the feedlot," he said. "This study reinvents the accord of economic, environmental, and production growth for Brahman steers."

Genetics can improve livestock grazing in South Texas

Improving beef cattle systems is priority at Texas A&M AgriLife Research Center at Beeville
Agrilife Today May 26, 2023

Using new fitness traits like heat tolerance and grazing behavior, Milt Thomas, Ph.D., Texas A&M AgriLife Research and the Department of Animal Science professor in the Texas A&M College of Agriculture and Life Sciences, is determined to help improve beef cattle systems in South Texas.

Thomas, who has made a name for himself in beef cattle circles around the world, returned to his alma mater this past year to take on the beef cattle systems research program at Beeville, a part of the Texas A&M AgriLife Research and Extension Center at Corpus Christi.

He earned his bachelor's degree in animal science and his master's in dairy science-reproductive physiology, both from the University of Missouri, Columbia, before coming to Texas A&M University to earn a doctorate in reproductive physiology.

Thomas completed his doctoral research at the Texas A&M AgriLife Research Center at Beeville, studying beef cattle reproduction – “and that was the beginning of the age of molecular biology and DNA studies,” he said, which really propelled his interests.

“The livestock breeding world wanted to incorporate DNA technologies, and I started down that path,” Thomas said. “My interest in genomics took my wife and me around the world.”

Thomas spent 15 years in the Department of Animal and Range Sciences at New Mexico State University, NMSU, serving as the Gerald Thomas Chair in Food Production and Natural Resources. While there, he was involved in breeding Angus, Brangus and Brahman cattle for the Chihuahuan Desert.

This, he said, was a great experience to prepare for breeding Angus cattle for tolerance to high altitudes in Colorado and Wyoming when he went to Colorado State University, CSU, as a professor and the John E. Rouse Chair of Beef Cattle Breeding and Genetics in the Department of Animal Sciences.

His research collaborations at NMSU and CSU took him to Australia, New Zealand, Spain, Brazil and France before Thomas returned to his Texas roots and moved to his family's ranch in Goliad County, near the community of Weesatche.

Building on tradition, but turning the corner

Now Thomas is using that experience to help the Texas A&M AgriLife beef cattle research program at Beeville turn a corner that will complement the more than 100 years of important intensive animal science research and 50 years of reproductive research.

“It's time to make some changes,” Thomas said, about taking over the program. “We have changed these cattle a lot over the years, and they are very good at some things like growth and carcass size. We've been highly successful.”

“But our amount of knowledge and data about how one cow grazes differently than another is very minimal.”

Cattle in subtropical climates such as the Gulf Coast of Texas are challenged by high temperatures and humidity, so most are Bos indicus- or Brahman-influenced. Thomas's latest research project will characterize the genetic variation of grazing traits in a subtropical environment and investigate how these traits are influenced by ambient temperature and humidity.



This research will be a collaboration with the U.S. Department of Agriculture, which will include moving a portion of the Germplasm Evaluation, GPE, project conducted by the U.S. Meat Animal Research Center in Nebraska to the Beeville station.

The project will evaluate Brahman-crosses, Beefmaster, Brangus and Santa Gertrudis cattle in a subtropical environment. The project will also study the genetics of grazing traits, which meshes with the long-running forage agronomy program at the AgriLife Research station in Beeville.

“Down in Beeville, it’s hot and humid, so we need heat-tolerant animals. Deciding on the animals to use for studies led us to the U.S. Meat Animal Research Center in Nebraska, one of the world’s largest animal ag research facilities. They cover every phase of animal science.”

The GPE includes 3,700 cows from the 18 most popular breeds in the U.S. Within it are the four heat-tolerant breeds – Brahman, Beefmaster, Brangus and Santa Gertrudis, which all make their home in Texas – but they were being evaluated in Nebraska.

“Now, we are collaborating, and the new home of a portion of the heat-tolerant cattle in the GPE is the AgriLife Research station at Beeville. We have already moved 120 females and seven bulls to Beeville. And, we’ll have about 60 calves born this spring. We will now do the study of the heat tolerance for this project. We will grow the calves and collect weaning weights, etc.”

Some of the heat-tolerant cattle will remain in Nebraska, so we can better understand how much the subtropical environment of the Texas Gulf Coast influences these cattle. This type of research is called the study of gene-by-environment interaction, known as a G x E project.

Hilltoppers or bottom dwellers: It’s all in the genes

Thomas said over the years, the genetic selection of beef cattle has helped livestock performance improve. The primary tool of genetic selection of beef cattle is expected progeny difference, EPD, which merges progeny records, pedigree and genomic information to estimate breeding values. For EPD, the environmental effects are adjusted out by contemporary grouping, which compares the genetics of cattle raised at the same location, age and sex, etc.

“However, there’s still a great need to better understand the effects of the environment on cattle, how these environmental effects are accounted for in the breeding value estimation processes, and most importantly, develop new traits to foster sustainability of beef cattle production systems.”

Specific examples he gave of fitness traits that have received investment in the past five to 10 years are feed efficiency and greenhouse gas emissions, hair-shedding, susceptibility to bovine respiratory disease, pulmonary arterial pressure for high mountain disease and feedlot heart disease, cow longevity and grazing distribution.

The one thing Thomas said they will bring new to the GPE is grazing traits, or sustainability traits. That meshes well with the forage and agronomy grassland scientific team led by Jamie Foster, Ph.D., AgriLife Research forage agronomist in Beeville.

When does a fence become the legal boundary line for farmland

The Doctrine of Title by Acquiescence determines the legal boundary line between two properties and overrules the boundary listed in the deeds.

By: John Schwarz; Successful Farming May 30, 2023

Rarely does a farmer or landlord agree or consent to lose part of their land. However, that is exactly what can happen in cases where a fence between neighbors turns out to not be on the legal boundary line.

The expectation is that a fence between neighbors is erected on the legal boundary line between the two adjacent properties. However, sometimes landowners have a mistaken belief that the fence marks the legal boundary line between two properties when it actually does not. Other times the adjacent landowners agree to treat an existing fence not on the legally boundary line as the legal boundary line. No matter the various circumstances, a fence that is believed to mark the legal boundary line, and turns out to not be the case, usually leads to a dispute at some point.

How does the law generally treat these instances where a boundary fence is not on the legal boundary line? Enter the Doctrine of Title by Acquiescence, which determines the legal boundary line between two properties and overrules the boundary listed in the deeds.

If the law of acquiescence applies, one property owner loses title to some amount of land and the other property owner gains it. Being acquiescent means to accept, agree, or consent. So, the Doctrine applies to situations where parties accept or agree that a fence not on the legal boundary line serves as the legal boundary line. This is much different than the Doctrine of Adverse Possession, where land can be gained or lost without any agreement or consent.

There are many instances where fences are built where it is most convenient and not on the exact boundary line. For example, when there are trees, rocks, or other obstacles in the way.

With the advent of GPS, it is easy to determine the boundary line down to mere inches. Today, it is more common to see a modern survey determine that the old fence is several feet, sometimes several

yards, off of the surveyed boundary line. Now what?

The neighbor who has lost ground due to the fence not being on the boundary line wants their lost land back. In most cases, the neighbor who gained ground is not keen on losing ground, especially if they have been farming up to the fence. In some cases, the prior adjoining neighbors, decades or a century ago, actually agreed that the fence, which was not on the legal boundary line, was the legal boundary line.



Variation by state

In these instances, the Doctrine of Title by Acquiescence serves to settle ownership. The requirements of the Doctrine vary from state to state.

In Indiana, there generally needs to have been some agreement of the adjacent landowners during the history of ownership. The Indiana Court of Appeals, in *Freiburger v. Fry* (1982), stated that a fence line agreement is not only binding on those parties who originally agree, but also on future owners, so long as there was no fraud present in the making of the agreement. In 2007, the Doctrine was again revisited by the Indiana Court of Appeals and the criteria established that where there are two adjoining property owners that (1) share a good-faith belief concerning the location of the common boundary line that separates their properties and, (2) although the agreed-upon location is not in fact the actual boundary, (3) use their properties as if that boundary was the actual boundary (4) for a period of at least twenty years, such becomes the official boundary line.

Ohio has similar case law, with one case noting that the Doctrine "rests on the practical reality that often-times, the true boundary line location is uncertain, and neighbors may themselves establish boundaries." It is worth noting that in some states an "agreement" among adjoining owners has been found in instances where each side farmed up to or grazed up to the fence. Thus, treating the fence as the boundary lines arises to an agreement.

Although it has been said by the Indiana Court of Appeals that the Doctrine has "lain largely dormant in real estate litigation since the end of the nineteenth century," it may very well be back in style as more land changes hands and more non-farmers locate to rural areas. With the ever increasing price of land, a boundary line being a few feet in one direction can add up quickly.

Know your legal boundary line



The takeaway is that most states will have some form of the Doctrine of Title by Acquiescence. Although the requirements may differ, the general theme is the same: Not knowing the exact boundary line of your land could cause you to lose part of your land.

You and your neighbor may have gotten along fine for years, if not decades, treating the old fence as the boundary line, but not intending for it to establish the legal boundary line. All bets are off when the new neighbor moves in. A modern boundary line survey is good insurance against being caught on the short end of the

Doctrine. It's also a good idea to have a written agreement between neighbors, stating the use of the current fence as the boundary line is for convenience only and not necessarily intended to become the legal boundary line.

Top 10 reasons ag education and ag literacy are important

By: Michelle Miller, Farm Babe August 1, 2023

Almost everyone in agriculture understands just how important this industry is. But not everyone places such a high value on agriculture literacy and ag education. With a rising population estimated to reach nearly 10 billion by 2050, ag education efforts are becoming increasingly important.

Before we begin, let's define agricultural literacy. Agriculturally literate people are able to understand and possess basic knowledge of the agriculture, food, fiber, and natural resource systems. They are also able to communicate the value of agriculture and identify issues related to ag.

Here are 10 reasons that ag education and ag literacy are important:



1. People are unaware of career opportunities

When you ask people what they think of when they hear the word agriculture, farming tends to come to mind. Many people (especially students) don't always think of ag careers in business, science, engineering, food production, and so much more. We need ag education to show students new career opportunities. In fact, Purdue University estimates that there is an average of 59,400 openings annually in the agriculture, natural resources, and food sectors. We need people to fill these positions.

2. There are misconceptions about ag

We all know that there are misconceptions about GMOs being bad, farmers using too many chemicals, “factory” farms being inhumane, agriculture’s role in climate change, and more. Ag education programs teach students the truth behind these misconceptions and continued ag literacy efforts reach others to tell them current information about new technologies and misconceptions.

3. Agriculture is important to learn about

In general, agriculture is important to learn about simply because people should know where their food comes from. If you start talking to people, some of them will tell you that food comes from the grocery store. This might be where they obtained their food items, but they don't know the processes that it took to bring their food from the farm to the grocery store.

4. We need to protect food security

Without people who understand the food production system, our food system is in jeopardy. We need people to advocate for agriculture, enact policy, and be educated consumers. If people who are not agriculturally literate are making changes to the food system through policy and with their votes, food security is at risk.

5. It creates educated consumers

At the grocery store, consumers are faced with a multitude of choices. To buy organic or conventionally farmed? What does the “hormone free” label on my meat mean? People go to the grocery store and buy food, but they can’t explain why they are buying the products that they are beyond basic reasons like price point. Consumers should know the basics of food labeling and the impact that different food production methods have, and be able to make an educated decision on what is right for themselves and their families.

6. Economically important

Agriculture is vital to a strong economy. Today, ag is responsible for over \$8.6 trillion — or nearly 20 percent — of the United States’ economic activity, with agriculture directly supporting nearly 23 million jobs (which is 15 percent of U.S. employment). With agriculture playing such a big role in our economy today, people should have a basic understanding of the value that ag brings to the table.

7. Basic life skills

Farm kids and people who have grown up in ag are arguably well ahead of others their age when it comes to life skills (that’s just one reason that FFA and 4-H are so popular). Agriculture and ag education provide many life lessons like discipline, compassion and responsibility, as well as practical life skills like public speaking, how to prepare food, operating heavy machinery and so much more. The life lessons and skills to be gained from agriculture are almost infinite!

8. Aging ag sector

The ag industry is aging. The average age of a farmer is 57.5 years old and this number keeps increasing. As older farmers retire, we need to make sure that the next generation is prepared to take on the important role of providing food and other agricultural products to a growing population.

9. Ag has a big impact on quality of life

Without agriculture, we wouldn’t have tires, houses, clothing, books, cosmetics, footballs, medicines, and more. Agriculture provides our food, fiber, lumber, and many byproducts that are used to create items we use every day. Almost everything we eat, wear, and use comes from a plant or animal. Agriculture has a big impact on quality of life, and ag education is important to ensure people have a basic understanding of this.

10. People should be able to communicate the value of ag



There are many people who aren’t able to communicate why agriculture is important. At the end of the day, the goal of ag education is to create an agriculturally literate person who should be able to tell others why agriculture is valuable and how it impacts themselves and the world around them.

As you can see, there are a lot of reasons that we need ag education and ag literacy. To ensure a successful future for a growing population, we need increased efforts to make sure we are creating an agriculturally literate population.

EATS Act brings delay and risk to new \$1.5 Trillion Farm Bill

By: Dan Flynn; Food Safety News August 22, 2023

The soon-to-expire Farm Bill is now at risk from an agriculture civil war that has broken out over the Ending Agricultural Trade Suppression (EATS) Act. While Congress remains on its summer recess, the battle over the EATS Act seems to produce hourly developments.

The only thing that might keep the EATS Act from blowing up the Farm Bill is that the 2023 Farm Bill does not yet exist, even in draft form though the current 5-year Farm Bill expires Sept. 30.

Farm state congressional delegations do not expect the 2023 Farm Bill to be passed by that Sept. 30 deadline; instead, the best hopes are for the \$1.5 trillion bill to be passed and signed by the President by the end of 2023. The bill supports farmers and ranchers and provides nutritional assistance for low-income people.

In the meantime, a heated dispute about the EATS Act continues.

On Monday, 171 bipartisan members of Congress sent a letter to House Ag Committee Chairman Glenn Thompson, R-PA, and Ranking Member David Scott, D-GA., opposing the inclusion of the EATS Act in the upcoming Farm Bill. The letter was organized by Republican Rep. Brian Fitzpatrick from Pennsylvania and Oregon Democrat Rep. Earl Blumenauer.

“We write today expressing our strong opposition to including H.R. 4417, the Ending Agricultural Trade Suppression (EATS) Act, or any similar legislation in the 2023 Farm Bill. Modeled after former Representative Steve King’s amendment, which was intensely controversial and ultimately excluded from the final 2014 and 2018 Farm Bills, the EATS Act could harm America’s small farmers, threaten numerous state laws, and infringe on the fundamental rights of states to establish laws and regulations within their borders,” the Congressional letter says.

“This is not a case of California imposing its standards on other states. Producers in any state can choose not to supply another state’s consumers or to segregate animals for different markets. Pork industry economists noted this in an amicus brief, writing, ‘Only those producers for which compliance with Proposition 12 is economically beneficial will choose to do so, while all others will continue to supply the vast majority of the North American pork market beyond California’s border and face little or no economic impact,’” it continued.

Animal activists oppose the EATS Act because they don’t want to lose ground. They won in 2018 and since by voters and affirmed earlier this year by the U.S. Supreme Court. The EATS Act came in response to the conservative Court’s 5-to-4 ruling that California may restrict access to its market on non-discriminatory terms.

The EATS Act opposition is warning congressional leaders to keep it would the Farm Bill, less it becomes a “Poison Pill.”

Sen. Roger Marshall, R-KS, and Rep. Ashley Hinson, R-IA, are sponsors of the EATS Act. Marshall has said radical animal rights activists want California to tell Kansas or Iowa farmers how to raise pigs. Next, Marshall says they will be “telling us we can’t grown GMO corn.”

But those animal activists point to at least one study claiming that the EATS Act could “overturn” troves of state laws, creating an oversight regulatory vacuum

The EATS Act negates state laws that impact other states’ agriculture operations.

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