

Nueces Agriculture

"IMPROVING FOOD & FIBER PRODUCTION"

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What has value to your calf buyer?

Mark Z. Johnson, Oklahoma State University; April 7, 2023

Producers should first begin by asking, if I were buying calves, what would I want?

- **Uniformity.** Calves of similar weight (less than 100 lbs.). Similar age (less than 90 days). Same sex. Similar condition (not too fat, not too thin). Uniformity in quantity adds even more value. Uniform semi-load lots of 50,000 lbs. is best.
- **Management.** Buyers want calves that are polled or dehorned. Steers that are castrated and heifers that are open. When these conditions are not met, calves will be discounted. Furthermore, calves weaned for 45 days, vaccinated (twice), bunk broke and pre-conditioned have more appeal to buyers and accordingly potentially sell at a premium.
- **Genetics.** Calves sired by bulls of similar genetics that appear to be from the same cow herd adds to uniformity. Documentation of genetic potential in the form records of past calf crops health, growth and cost of gain, dressing percentage, carcass weight, carcass quality and cutability add potential value.



FARM WORKER PROTECTION SAFETY TRAINING

When Friday, May 3, 2024

Time 8:30 AM

Where.... A&M AgriLife Ext. Office

For Information Call (361) 767-5220

710 East Main, Ste. 1, Robstown, TX

Pesticide handlers and workers must be trained every year unless they are certified applicators. All participants in this training will be issued cards verifying they have successfully completed the required training and given a copy of the sign-in roster for their employer's files.

PRIVATE APPLICATOR TRAINING

When Tuesday, September 10, 2024

Time 8:30 AM

Where.... A&M AgriLife Ext. Office

Call to Pre-Register (361) 767-5220

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.

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AgriLife Extension updates producers on utilizing dicamba products

Education and training will continue on best practices in light of new deadlines

KAY LEDBETTER, AGRILIFE TODAY; FEBRUARY 15, 2024

Growers need to be aware of new deadlines on the purchase and use of over-the-top dicamba products in light of a U.S. Environmental Protection Agency Existing Stocks Order issued Feb. 14. The Texas A&M AgriLife Extension Service will continue the producer trainings offered around the state and support producers through outreach and education about recommended best practices.

This Existing Stock Order is a result of the recent U.S. District Court of Arizona's ruling to vacate the 2020 registrations for over-the-top use of dicamba herbicides — Xtendimax, Engenia and Tavium — specifically for use on dicamba-tolerant cotton and soybean.

The EPA issued the order in recognition that significant amounts of Xtendimax, Engenia and Tavium herbicides were already in circulation prior to the Arizona court's decision.

What producers need to know

Scott Nolte, AgriLife Extension statewide weed specialist in the Texas A&M Department of Soil and Crop Sciences, Bryan-College Station, said this is a chance for producers who have already purchased their herbicides or have plans to use those remaining stocks in 2024, but there are clear deadlines.

For Texas growers, the EPA-established purchase deadline for these herbicides is May 31 for dicamba-tolerant soybeans and June 30 for dicamba-tolerant cotton. The final dates to apply dicamba products are June 30 for soybeans and July 30 for cotton, after which any unused products will be considered illegal to use, Nolte said.

The ruling states the use of products already in the possession of growers or within trade channels, must comply with previously approved 2020 labeling to minimize environmental harm, which includes completing the annual auxin training requirement. Producers should contact their local AgriLife Extension agent for in-person meeting information or they can take the training online.

These dicamba herbicides have undergone several regulatory updates, and the AgriLife Extension-offered trainings are meant to keep producers advised of those changes and best practices.

“The order on Feb. 14 assists growers who planned to or have already invested in dicamba-tolerant seeds for the season,” Nolte said. “It also means that growers must abide by stringent guidelines for use of the existing stocks of dicamba as well as the deadlines for their purchase and use.”



Producers using dicamba herbicides have one final year to use up their existing stocks, but the Environmental Protection Agency has set deadlines for purchase and applications in 2024.

(Texas A&M AgriLife photo by Sam Craft)

Late Legislation: Texas A&M expert says we may not get a Farm Bill until 2025

Texas A&M's Ag & Food Policy Chief, Dr. Joe Outlaw, predicts lawmakers may not draft a new Farm Bill until 2025, missing the first deadline by nearly two years.

By: Amber Weaver, RFD-TV; February 13, 2024



According to Texas A&M University ag policy expert, Dr. Joe Outlaw, there is a high likelihood lawmakers will not produce new Farm Bill legislation until well into next year, in 2025. Dr. Outlaw says, lawmakers still have months of work ahead to write, pass, and enact a Farm Bill.

“There’s a little bit of rumblings that they want to get it done in 2024. I don’t expect it to be done in 2024 unless something wild happens after the election — and even then, if the House or Senate flips, it’s going to be enough change that I don’t think it will happen early in 2025, either.” - Dr. Joe Outlaw, Texas A&M’s Ag & Food Policy Chief

Outlaw, an Agricultural Economics professor & Co-Director of the Texas A&M Agricultural and Food Policy Center (AFPC) advises both parties on the House and Senate Ag Committees. The shortest legislative process Outlaw has witnessed took nine months. Now, two months into this year, Washington is already consumed with political dysfunction and the presidential election.

Crafting this all-encompassing and expensive piece of ag legislation has already been a contentious and lengthy process. Lawmakers missed their original deadline back in September 2023, mired in debate over funding concerns, and then tabled the bill to focus on other measures needed to fund the government before the holidays. He predicts the looming presidential election in November will serve as the newest distraction for lawmakers, and extend the timeline of the Farm Bill even further.

Stakeholders across the industry are urging Congress to pass a new Farm Bill, including the American Farm Bureau Federation (AFBF). Ryan Yates, managing director of government affairs for the AFBF, says that it is difficult, especially with crop insurance.

“We don’t see a ‘one or the other’ type of an approach. I think that would be a mistake to have to give up one risk management program for another. I think that would be a problem.” - Ryan Yates, AFBF Managing Director of Government Affairs

Sparks are still flying across party lines in terms of funding. Many Republicans still want to see SNAP cuts on the table while Democrats are standing their ground when it comes to essential entitlements as well as thoughts of culling climate funding for farm programs.

Census shows decline of women's representation in ag

By Markie Hageman Jones, AG DAILY; February 14, 2024

Women in agriculture overall saw a slight decline in representation within the farming and ranching industries, according to the 2022 Census of Agriculture published this week by the U.S. Department of Agriculture's National Agricultural Statistics Service. In 2017, the number of female producers totaled 1,227,461 (38 percent of the industry); for the 2022 data, there were 1,224,726 (36 percent). In comparison, there were 2,149,318 male producers as of 2022.

The majority of female producers, roughly 800,000, reported having "other" primary occupations outside of production agriculture. This is down from the 2017 numbers, and the amount of women who are in production agriculture full time have grown. The report reveals that about 490,000 women spent no days working off the farm, while there were 470,000 who spent 200 days or more working off the farm.

Beef cattle ranching, and crop farming make up the top two spots, respectively, for commodities farmed. The interesting fact is that beef cattle ranching has dropped by about 38,000 since 2017. In fact, many industries were lower in the 2022 census versus 2017. The crop farming, poultry and egg production, and greenhouse, floriculture and nursery categories had the most growth over the past five years.

Overall, farms that females own has dropped, but not substantially. Women who owned 1- to 9-acre farms dropped more drastically between 2017 and 2022 than every other farm size, most of which stayed almost the same, albeit a slight drop. About 800,000 women have operated their farms for 11 years or more.

The largest age group of female producers is 55 to 64 years, followed closely by 65 to 74. It seems that the 45 to 54 years age group has dropped off sharply since 2017, from 233,000 down to 192,400 in 2022. Only 19,500 are younger than 25. The average age was 57.8; it was 57.1 in 2017.

Every category of on-farm involvement in decision-making dropped from 2017, but a majority of women play a role in day-to-day decisions, with 960,000 reporting being decision-makers in 2022. Second to that is the record-keeping and/or financial management category, with 870,000 women. Thirdly, 717,000 women got to make land use and/or crop decisions in 2022.

Still, female producers were most involved in day-to-day record-keeping and financial management decisions when compared to male producers, who had higher rates of involvement in land use and/or crop, live-stock and marketing decisions than female producers.

The state with the most female producers, by far, was Texas, with over 143,000 total, but even that was down from over 156,000 five years ago. The next state, coming in at 53,000, was Missouri. Iowa, Oklahoma, and Ohio round out the top five.

With a decline in farmland and farmers across the census, it's no surprise that the number of females involved has decreased slightly. Still, female farmers remain an intricate piece to the success of the farming industry and a demographic integral to keeping farming progressing. As record-keepers and financial decision-makers, females may very well become deeply involved in securing some of the additional revenue streams that Secretary of Agriculture Tom Vilsack pointed to during a news conference on Tuesday.

"This survey, in addition to all of the amazing work and data it contains, is a wake-up call," said Vilsack. "This survey is essentially telling us, asking the critical question of whether as a country, are we okay with losing that many farms? Are we okay with losing that much farmland? Or, is there a better way?"

Texas A&M ag economist: American cattle herd smallest since 1951

AgriLife Today, Texas Crop and Weather Report; February 6, 2024

The Texas beef cattle herd could be on its way to a rebuild after hitting its lowest numbers in a decade, according to Texas A&M AgriLife Extension Service experts.

David Anderson, Ph.D., AgriLife Extension economist in the Department of Agricultural Economics, and Jason Cleere, Ph.D., AgriLife Extension statewide beef cattle specialist in the Department of Animal Science, both in the Texas A&M College of Agriculture and Life Sciences, Bryan-College Station, said Mother Nature will determine whether Texas' beef cattle herd continues to shrink or rebounds. They agreed that rebuilding herd numbers will rely heavily on rain and soil moisture supporting forage production for grazing through 2024 and winter feeding into spring 2025.



According to the U.S. Department of Agriculture National Agricultural Statistics Service cattle inventory report released Jan. 31, the nation's beef cow herd fell 2% since last year to 28.2 million head. Anderson said the report estimate is the lowest number of U.S. beef cows since 1951.

The beef cattle herd in Texas is the smallest – 4.1 million head – since 2014. The Texas herd started to recover from the 2011-2012 drought after that low point.

From 2010 to 2014, the Texas herd shrunk from 5.14 million to 3.9 million, a 24% decline, Anderson said. There were 4.65 million beef cows in 2019, but those numbers have fallen 12% since due to the drought's impact on forage production in back-to-back years.

Declining beef cattle numbers across the state ripple into national markets because Texas carries 14.6% of the U.S. herd.

Like a big ship reversing course, Anderson said rebuilding cattle herds takes time.

“Higher sale prices are an incentive for producers to expand the herd, but a lot of producers have been feeding hay since mid-July, and that has led to deeper culling of herds,” Anderson said. “The stage is set to expand, but the key is rainfall and conditions allowing producers to hold back replacement heifers that are the future of our herds.”

Calf prices riding producer optimism

Cleere said recent rainfall has greatly improved soil moisture indexes and stock tank water levels around the state.

That soil moisture has fueled optimism among producers, and he suspects it has impacted recent spikes in calf prices at local cattle markets.

“I think producers are eager to keep replacement heifers, but they've also been struggling to hold on to cows,” Cleere said. “The rainfall has provided more optimism. Calf prices have been crazy good the last couple of weeks.”

For example, Anderson said the combined calf price data from Texas auctions showed prices for 500-600-pound calves increased from \$273 to \$299 per hundredweight in the last two weeks.

Cleere said the price jump in calf prices could be related to producers buying calves because they have good available grazing on cool-season forages like wheat and ryegrass. Recent rains should significantly improve spring forage production in cool-season forage pastures.

Good spring grazing conditions should help producers as calving begins, Cleere said.

The USDA-NASS report estimated the U.S. calf crop at 33.6 million head, down 2% from 2022. Cleere said Texas producers could see a lighter spring calving season due to factors like heat-related stress during the summer based on several palpitation reports around the state.

Cleere also shared concerns about seeing below-average body condition scores in bred cows. Low body condition scores could impact this calf crop but also could impact recovery times for breeding and cows' ability to carry a calf to term.

While optimism is high among cattle producers now, Cleere said last year was an example of how quickly conditions can turn. There was optimism that the 2022 drought was breaking in parts of the state following winter and spring rain, but by May, the dry, hot conditions set in and did not let up.

He encouraged producers to find ways to optimize good conditions now but to stick to plans that protect their operation's long-term ability to hold cattle. Both Cleere and Anderson agree that all market indicators point to even higher calf prices as the state and national herds rebuild.

"The big thing is, as we start spring calving, we need to make sure those cattle remain in good body condition so they can be bred," he said. "I've seen quite a few thin cows out there, and I know producers are stretching hay supplies, but we need to be thinking about the next calf crop right now."

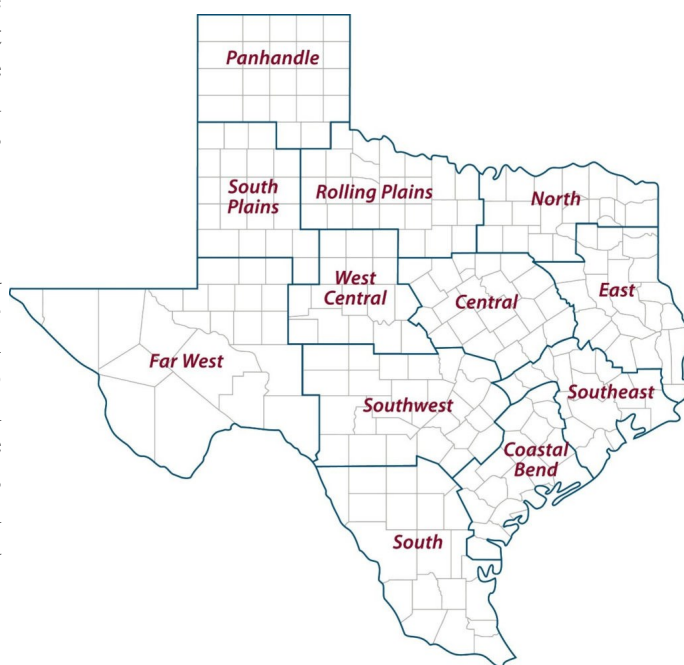
AgriLife Extension district reporters compiled the following summaries:

COASTAL BEND

Field activities were limited to lighter soil types, with grain producers preparing corn seeds for planting. Winter pastures were performing well, providing relief from hay feeding, while volunteer winter annuals greened up, offering high-quality forage for cattle. Recent rains replenished surface water supplies, but row crop activity was halted due to wet conditions. Additional rain over the weekend was expected to delay corn planting. Despite wet conditions, subsoil moisture was excellent, and pasture conditions were improving with increasing daylight and warming temperatures. Cattle remained in fair condition as producers continued feeding hay and protein.

SOUTH

From 1-9 inches of rain fell across the district. Topsoil and subsoil conditions remained adequate. Warmer temperatures allowed rangelands and pastures to grow, but cool nights slowed the growth. Farmers halted fieldwork due to the heavy rains. Crop conditions remained good. Certain counties were watching for fire weather since winds were gusting 35-40 mph last week. Livestock and deer producers continued to provide hay and supplementation to maintain body conditions. Cattle prices remain strong in the weaned calf and stocker beef categories.



Treated seeds vs. untreated seeds: What's the difference?

By: Michelle Miller, Farm Babe, AGDAILY; February 13, 2023

When farmers get ready to plant, they're faced with many decisions on what to do. One of those decisions is whether to plant treated seeds or untreated seeds. But this isn't just a decision that faces production-scale farmers — gardeners also have the option to purchase treated versions of pumpkin seeds, pepper seeds, peas, squash seeds, corn, and more.

So what exactly are treated seeds and what is the difference between treated seeds and untreated seeds?

Treated seeds are seeds that have been lightly coated with various fungicides, insecticides, nematocides, and other biological products.



Small amounts of these products are professionally applied to the seeds by seed companies or certified applicators. Treated seeds have a polymer coating to be sure the treatment adheres to the seed. After the treatment is applied, the seeds are a bright color to distinguish them from untreated seed.

The products that are applied help to protect plants from a variety of diseases and pests that attack the seed and seedlings after planting. These crop protection products help the seed when the benefits are most significant.

Non-treated seeds are what you normally think of when you think of seed. These seeds are not coated with fungicides, insecticides, nematocides, or any other biological products.

This seed is clean and has certain labeling requirements at both the federal and state levels.

Each fungicide, nematocide, insecticide, or other biological product used as a seed treatment is each unique and targets a specific disease or pest. Different products are used as seed treatments based on where a farm is located, problems a farmer has faced in the past, weather, and even a farm's budget.

One example of how treated seeds could help with weather can be found in the southern United States. In places where temperatures aren't cold enough in winter to kill diseases or insects, seed treated for these diseases and insects can be extremely beneficial.

Treated seeds are used widely in the United States. A study from Pennsylvania State University and the U.S. Department of Agriculture found that from 2012 to 2014, 90 percent of corn acres and 76 percent of soybean acres were grown with treated seeds.

All treated seeds are thoroughly regulated and regularly reviewed by federal and state authorities. Treatments need to be approved by the Environmental Protection Agency before they can be added to the seeds. After these treatments are approved and added to seed, all treated seed has to follow strict labeling laws. The USDA requires that all treated seed be labeled with the name of the treatment and whether the seed cannot be used for food, feed, or oil purposes (or any of these individually).

The handling of treated seed is also regulated to minimize risk of pesticide exposure to people and the environment. If treated seed is spilled, it should be cleaned up to minimize the risk the treatment might have on wildlife, birds, fish, and even people. People handling treated seed should also follow the labeling guidelines on what personal protective equipment (PPE) to wear. If the seed has a label saying that it shouldn't be used for food, feed, or oil purposes, you can trust that it won't be. There is zero tolerance for treated seed being on the export market. Even a single treated seed could result in the rejection of an entire load of seeds.

Seed treatments offer an economical and sustainable way to boost food security. Treatments help to maximize yield potential, improve crop health and vigor, reduce the need for additional pesticide applications, and support sustainable agriculture. Without seed treatments, farmers sometimes have to use more intensive and costly farming practices to achieve the same results. This would require more tillage, fewer cover crops and more sprays of fungicides, insecticides, nematicides and other biological products.

Since treatments are applied directly to the seed, the amount of treatment used is minimal. This means there is a reduced possibility of runoff and reduced water quality when compared to traditional pesticide treatments.



Overall, treated seeds have been hugely innovative and have helped farmers to feed more people. They are a helpful tool that is used to feed a growing population by increasing yields, increasing profitability for farms, and even increasing sustainability of agriculture.

The great thing about farming today is that farmers have a choice. Farmers don't have to use treated seed if they don't want to. If they choose to use treated seed, they also have to choose what treatment will work best for their operation.

So, no matter whether you're a farmer or a gardener, the next time you're buying seeds (small scale or large scale), take a look at the huge variety of treated seeds available and take some time to decide what works best for you.

U.S., Texas cotton farmers intend to plant fewer acres

By: Emmy Powell, Texas Farm Bureau; February 22, 2024

Farmers in Texas and the U.S. are expected to plant fewer cotton acres this year.

According to the National Cotton Council of America's (NCC) 43rd Annual Early Season Planting Intentions Survey, Texas farmers plan to plant nearly 5.3 million acres of upland cotton, which is down 5.1% from last year.

U.S. cotton farmers intend to plant 9.8 million cotton acres this spring, down 3.7% from 2023.

"Planted acreage is just one of the factors that will determine supplies of cotton and cottonseed. Ultimately, weather and agronomic conditions are among the factors that play a significant role in determining crop size," Dr. Jody Campiche, NCC vice president of Economics and Policy Analysis, said.

Of the intended U.S. cotton acreage, extra-long staple (ELS) intentions of 202,000 acres represent a 37.7% increase. Texas growers expect to plant 35,000 acres of ELS cotton, 22.0% more than last year.

Upland cotton acres in the U.S. are expected to account for 9.6 million acres, down 4.3% from last year.

The decrease in cotton acres in the Southwest, including Texas, is due to an expected increase in corn, soybean and peanut acres.

Uncertainty remains around the current economy for many, including cotton farmers. And the slow economic growth isn't helping the cotton market.

"For many months now, the demand for cotton has appeared weak, as measured by buyer inquiries and export sales. This has happened along with, or perhaps because of, lingering fears about slow economic growth," Dr. John Robinson, AgriLife Extension cotton economist, said.

The general outlook on the economy, Robinson said, is likely to limit the cotton market.

There are many factors that will contribute to the market this season. However, Robinson said there are bullish possibilities for the year.

"Combined with short cotton supplies in the U.S., eventual cuts in interest rates, and assumed economic growth, this scenario paints a picture of surging demand to make up the gap," Robinson said. "There are lots of ifs to play out under this bullish scenario, but if they did, it would show upward spikes in weekly export sales, as well as strength in ICE cotton futures."

NCC expectations are a snapshot of intentions based on market conditions at survey time with actual plantings influenced by changing market conditions and weather. Farmers will continue to monitor changes in commodity prices and input costs before finalizing their 2024 acreage decisions.

"History has shown that U.S. farmers respond to relative prices when making planting decisions. As compared to average futures prices during the first quarter of 2023, all commodity prices were lower during the survey period, but cotton had the smallest decline," Campiche said. "As a result, the price ratios of cotton to corn and soybeans were higher than in 2023. Based on historical price relationships, this would generally suggest an increase in cotton acreage. However, the 2024 crop year could go against that relationship due to high production costs relative to current prices."

Texas only sugar mill to close permanently

By: Julie Tomascik, Texas Farm Bureau; February 22, 2024



Texas' only sugar mill is closing after 51 years of growing and processing sugarcane into raw sugar in the Rio Grande Valley.

The harvest and milling season, which was recently completed, will be the last.

The Rio Grande Valley Sugar Growers, Inc. made the decision to close the facility due to the ongoing water issues with Mexico under the 1944 Water Treaty.

“Agriculture in the Rio Grande Valley depends on adequate and reliable irrigation water deliveries,” the mill said in a press release. “For over 30 years, farmers in South Texas have been battling with Mexico’s failure to comply with the provisions of the 1944 Water Treaty between the U.S. and Mexico that governs wa-

ter sharing between the two nations on the Colorado River and the Lower Rio Grande.”

Mexico is obligated to deliver an average of 350,000 acre-feet annually over the defined five-year cycles outlined in the treaty.

Currently, Mexico owes over 736,000 acre-feet of water. Of the 1,113,288 acre-feet of water owed to the U.S. this cycle, Mexico has only delivered 376,915 acre-feet.

Many water districts in the Lower Rio Grande Valley have no irrigation water allocated for farmers in the area, and the situation is made worse by the ongoing drought conditions.

“For over 25 years, the U.S. State Department’s unwillingness to prioritize the citizens and agricultural producers of South Texas has led to numerous water shortages for our area,” the mill said.

Growing and harvesting sugarcane, and processing the crop into raw sugar, has generated substantial economic value for local, state and national economies.

The region is home to over 100 local growers and about 40,000 acres of sugarcane. The mill employs more than 500 full-time and seasonal workers annually.

This decision will have major impacts on the region.

“Despite our growers’ deep desire to continue this legacy for future generations, without reliable supplies of irrigation water and the necessary crop insurance provisions and administrative guidelines to maintain acres, RGVSG, Inc. has no choice but to close its doors. We regret the impact our closure will have on communities across the Valley, especially those closest to the mill—La Villa, Santa Rosa and Edcouch.”

Enforcing the 1944 Water Treaty is a priority issue for Texas Farm Bureau.



“Texas Farm Bureau (TFB) is extremely disappointed to learn lack of action by the U.S. State Department to enforce the 1994 Water Treaty has resulted in the closure of Rio Grande Valley Sugar Growers, Inc. The closure of this historic mill highlights the real-world impacts of decades long inaction and lack of enforcement of the treaty that clearly states Mexico is obligated to deliver water annually to the U.S.,” TFB President Russell Boening said. “Unless substantive actions are taken to force Mexico to comply with the treaty, this problem will continue to further impact agriculture, municipalities and other sectors of the region. TFB stands ready to continue working with state and federal officials to

combat this issue and preserve the future of Rio Grande Valley agriculture.”

Late last year, the U.S. House of Representatives passed a resolution, HR 683, introduced by U.S. Rep. Monica De La Cruz of Texas.

The resolution recognizes that South Texas farmers are experiencing water shortages and supports diplomacy to encourage Mexico to fulfill the commitments in a consistent and timely manner. It also supports negotiations that will guarantee more predictable and reliable water deliveries to the U.S.

“Make no mistake—this closure directly results from Mexico’s failure to abide by the 1944 Water Treaty with the United States,” De La Cruz said in a statement. “Mexico’s lack of timely water deliveries puts all Texas agriculture at risk. U.S. Secretary of State Antony Blinken and Secretary of Agriculture Tom Vilsack must step up and hold Mexico’s feet to the fire, enforcing the terms of the water treaty to prevent further job losses and economic impacts from the water shortage plaguing South Texas.”

Diversify income with grazing

By: Clay Purina Animal Nutrition, AGRIVIEW; December 29, 2023



Sheep. Goats. Cattle. Multispecies grazing can provide many advantages to producers looking to mitigate risk, diversify their income and get more from their pastures, even when forage availability is limited.

Raising different species together is fairly common, and the practice has grown in recent years. Multispecies grazing gives farmers and ranchers another avenue for income. Whether currently raising sheep, goats or cattle, adding another species to an operation could provide many benefits.

Consider several factors when deciding if multispecies grazing is the right choice.

Sustainable pasture management. Sheep, goats and cattle are the perfect complementary species to graze together because they aren't always competing for the same forages. Grazing any combination of those species can help producers get more from pastureland by turning "waste" plants into meat, wool or milk.

Goats are browsers, favoring tree limbs and leaves over the high-quality tender grass sheep and cattle prefer. Goats are also a great option for grazing land impacted by drought because they can forage on relatively little vegetation, giving producers an additional income source without taking away the limited resources available for cattle or sheep.

Sheep can graze grass closer to the ground than cattle, so they can utilize forage cattle can't. One watch-out with sheep is to avoid overgrazing, which could impact the long-term productivity of pastures. Create a pasture rotation plan and use water or supplemental nutrition sources to spread out grazing activity to help reduce the risk of overgrazing.

Efficient forage use isn't the only way multispecies grazing supports sustainable pasture management. Sheep and goats can help keep brush and invasive plants at bay, allowing for more grass growth for cattle and, in some cases, eliminating plants that could be toxic to cattle.

Copper supplementation. One reason producers hesitate to implement multispecies grazing is goats and cattle have a significantly higher copper requirement than sheep, which are copper-sensitive. That's the major difference between those three species – their copper tolerance.

One option to address the differing copper needs is to feed all species a sheep mineral that's low in copper, and supplement cows and goats with a bolus product once or twice per year to meet their copper needs. Soil testing can help determine how often cattle and goats need copper supplementation.

Another option is sequential grazing, or rotating species through pastures separately, rather than co-grazing. That allows producers to provide each species with a mineral tailored to its unique nutritional needs and avoid the added labor of administering a bolus product.

Diversify income opportunities. Multispecies grazing allows producers to mitigate risk by opening up additional market opportunities and gaining more income per acre of pasture. A cow can only maintain herself and raise one calf every year. Producers could add four to five ewes and their babies on that same acre of ground, giving them another revenue source.

The number of animals producers can raise per acre depends on many factors, including pasture quality, sequential or co-grazing management, water access and market availability and goals.

Keep in mind reproduction rates differ by species. Sheep and goats reproduce more frequently and have more offspring than cattle. Consider how quickly sheep or goat herds will grow, and plan stocking density accordingly.

Input cost and management considerations. While there are many benefits to raising multiple species together, other expenses and management changes must be considered. Balance input costs and projected return on investment to determine if multispecies grazing is the right choice for producers. For example fencing upgrades to keep smaller species in and help deter predators is one of the larger up-front considerations in terms of labor and cost.

Another consideration is veterinary care. Ensure local veterinarians are comfortable caring for whichever species producers intend to raise. Evaluate handling facilities to ensure they can accommodate large and small animals and that veterinary care and other management activities can be done safely and efficiently.

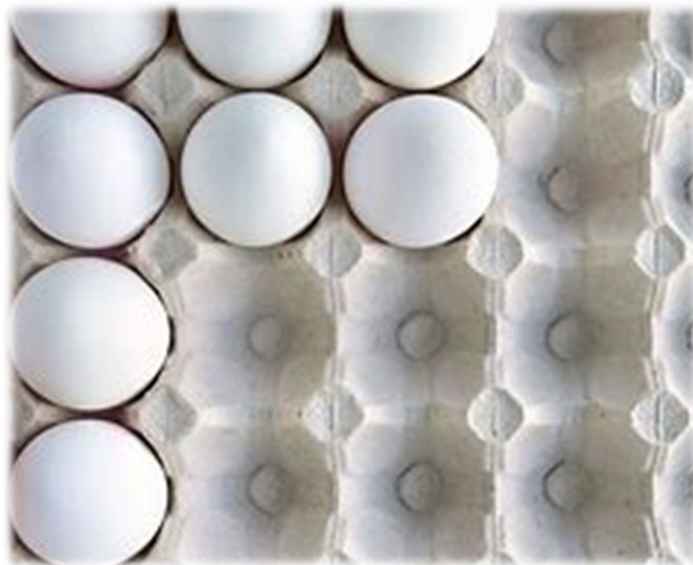
Partnership opportunities. When it comes to multispecies grazing, producers don't have to go it alone. Some cattle, sheep and goat producers have found success working together. There have been successful operations where a cattle producer brings in sheep or goats from a different ranch for summer grazing. The cattle rancher benefits from weed control and pasture management while the sheep or goat producer benefits from access to high-quality pasture for their animals. It's a win-win.

With some thoughtful considerations, multispecies grazing can be a great option to help mitigate risk, diversify income and get more from pastureland, whether currently raising sheep, goats or cattle.



Scientists develop technology to reduce pathogens in eggs

By: AGDAILY reporters; February 26, 2024



The Centers for Disease Control and Prevention estimates *Salmonella* bacteria causes about 1.35 million infections, 26,500 hospitalizations, and 420 deaths in the United States every year.

Despite their appearance in everyday meals and snacks, raw eggs and egg products can carry *Salmonella* and cause foodborne illness, outbreaks, and even death in some circumstances. However, researchers at the U.S. Department of Agriculture recently found a way to combat this through Radio Frequency technology.

A simple solution to foodborne pathogens in eggs would be to pasteurize all raw eggs before they are consumed, but less than 3 percent of commercial eggs are pasteurized in the United States. Conventional thermal pasteurization of intact eggs is usually a long

process that involves submerging eggs in hot water for more than 57 minutes to inactivate *Salmonella* cells. Researchers at the Agricultural Research Service's Eastern Regional Research Center in Wyndmoor, Pennsylvania, used a novel thermal technology that pasteurizes eggs and inactivates *Salmonella* cells with a short processing time.

During the study, the water molecules inside the egg rotate and align with the RF instrument's electric field. This molecular friction causes the liquid inside the egg to heat up quickly and subsequently reduce *Salmonella* by 99.999 percent within 24 minutes. The R.F.-processed eggs were transferred to the refrigerator and kept at 7°C for seven days to simulate the commercial cold chain temperature.

"After treatment with the system, no intact *Salmonella* or sub-lethal *Salmonella* cell remnants were recovered, and no cell recovery was found in the R.F. – treated eggs when stored at retail refrigerated temperature," said USDA-ARS Research Food Technologist Daniela Bermudez-Aguirre. "The egg quality, such as the color and other parameters, were also preserved through the processing."

This technology has shown several advantages when used in food, all without a negative effect on food quality. Statistics also show that Americans consumed a total amount of 93.1 billion eggs in 2023. So, this is a promising advancement for small farmers or egg processors and can ensure food-safe eggs while minimizing *Salmonella*. Consumers will also benefit from this technology since it preserves the quality of the eggs that can be used for special markets such as nursing homes, hospitals, or schools.

Evaluating heifers before breeding

K-State veterinarians say weight and reproductive maturity are two factors to assess

By Lisa Moser, K-State Research and Extension news service; Feb 27, 2024

Walk through the halls of a high school and it is easy to see that not all kids develop at the same pace – some look like mature adults while others appear younger than their age.

Similarly, individual animals in a cattle herd also reach maturity at different times, say the experts at Kansas State University's Beef Cattle Institute.

Speaking on a recent **Cattle Chat** podcast, the experts addressed factors that influence the pace at which heifers reach their maturity.

"Most heifers reach puberty at 12-13 months of age; there are some Brahman-influenced breeds that are a little older when they begin cycling," said K-State veterinarian Bob Larson.

To help producers identify the heifers that are most likely to get bred early in the breeding season, Larson advises that producers complete a pre-breeding evaluation of the heifers.

"The two things that drive maturity are their age and their body weight," Larson said.

When Larson conducts the pre-breeding evaluation, he assesses their reproductive tract.

"As they get closer to puberty, their reproductive tract starts to feel more like an adult tract with a thicker, larger uterus and some follicle structures on the ovaries," Larson said.

He said there are two main times these evaluations are done.

"Six weeks before the breeding season, I can get an idea of the likelihood they'll be cycling at breeding, and I still have time to help that along with nutrition. The other time is when we are getting ready for a synchronization protocol and I can separate the ones that are not likely to get bred," Larson said.

Another factor affecting development is the amount of body fat heifers are carrying, which can be controlled by the heifer's diet. The experts agree that the easiest way to measure that is through weighing the heifers.

"As heifers grow, they start to deposit more fat in each pound of gain and less muscle. So when they get to about 60-65% of their mature weight, the hormones will signal to the body that it is time to ovulate," said K-State beef cattle nutritionist Philip Lancaster.

If these are retained heifers, Larson said, often producers will know a target weight that their females in the herd start to cycle. While it varies among herds, for many he said that is about 850 pounds.

Six weeks before breeding, Lancaster said producers can evaluate the heifer's body condition and adjust accordingly.

"We can safely increase their nutrition to get more energy in their diet to push them to gain 2-2.5 pounds per day. As long as we start 70-90 days before the breeding season, many of those heifers will reach puberty on time," Lancaster said.

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