Western Livestock Journal®

"The Industry's Largest Weekly Circulation"

The National Livestock Weekly

February 19, 2024 • Vol. 102, No. 12

website: www.wlj.net • email: editorial@wlj.net • advertising@wlj.net • circulation@wlj.net

INSIDE WLJ

ASI FEATURE – Look no further for our annual American Sheep Industry Association feature with special focus on issues at the forefront of the sheep industry. **Page 18**

ASA SECTION – Our American Simmental Assocation special section is here! This week dive into all the breed has to offer. **Page 32**

A LOOK BACK IN HISTORY

"A Montgomery, AL, jury ruled last week that the country's largest beef processor participated in live cattle procurement practices that violated the Packers & Stockyards Act (P&SA), and the company owes over $1.28 billion in damages to the 30-35,000 producers included in the 'Class' of plaintiffs. However, the lawsuit appears to be far from over, as the nation's largest beef packer has already said it is appealing the ruling," read the Feb. 29, 2004, *WLJ* cover story.

INDEX

Oliver Contreras/White House

President Joe Biden delivers remarks and signs a proclamation establishing the Baaj Nwaavjo I'tah Kukveni–Ancestral Footprints of the Grand Canyon National Monument on Aug. 8.

AZ lawmakers sue Biden over monument designation

— Prevents development

Arizona lawmakers have filed a suit against President Joe Biden over his designation of a national monument near the Grand Canyon, calling it a "land grab" that prevents further use and development.

Arizona Senate President Warren Petersen (R), Arizona House Speaker Ben Toma (R-27), Mohave County and the cities of Colorado City and Fredonia said Biden did not have the power to create the Baaj Nwaavjo I'tah Kukveni–Ancestral Footprints of the Grand Canyon National Monument under the Antiquities Act as it does not meet the definition under the law.

"Congress passed the Antiquities Act to protect just that: antiquities," the lawsuit states.

The suit contends that any proclamation under the Antiquities Act must focus solely on historic landmarks, historic and prehistoric structures, and other objects of historical or scientific significance. Furthermore, it emphasizes that such designations should be restricted to the "smallest area compatible" with the preservation and management of the designated items.

The lawsuit contends that Baaj Nwaavjo I'tah Kukveni does not meet either requirement.

Biden issued a proclamation on Aug. 8, 2023, setting aside 917,618 acres in three areas surrounding the Grand Canyon to protect "the rich cultural, ecological, scientific, historic, and scenic value of the greater Grand Canyon landscape." The proclamation states it sets aside the sacred places for cultural and

See LAWSUIT on page 13

Traceability debate heats up

— NCBA moves interim policy forward

At the 2024 National Cattlemen's Beef Association (NCBA) annual convention, the Cattle Health and Well-Being Committee met to discuss traceability policy. The committee advanced an interim policy that was passed by the NCBA Policy Board of Directors, which will remain an interim policy until members vote on the policy later this year.

See NCBA on page 25

Sheep and lamb inventory heads 2% lower

— Prices could increase

USDA's National Agricultural Statistics Service (NASS) Sheep and Goats inventory report showed a stronger-than-average decline in numbers, with all sheep and lambs in the U.S. as of Jan. 1 down about 2% to 5.03 million head.

"The 1.9% decrease in sheep and lamb inventory to just over 5 million head was not unexpected, but it was slightly stronger than the historical average trend of less than 1% annual decline over the last decade," Tyler Cozzens, agricultural economist at the Livestock Marketing Information Center (LMIC), told *WLJ*.

The five top sheep and lamb states combined for a 95,000 head decrease, accounting for most of the 100,000 head decline in inventory for 2023. Cozzens said the declines were more extensive than expected, with California decreasing 30,000 head, Colorado down 15,000 head, Texas down 25,000 head, Utah down 10,000 head and Wyoming declining 15,000 head.

NASS reported increases in inventory in the Mid-Atlantic region and in Arizona, Nebraska and Oklahoma. Cozzens noted increases ranged from 5,000-10,000 head in some states, such as Ohio, Oklahoma and Pennsylvania, but were not enough to offset the decreases.

See SHEEP on page 19

Cash trade remains at all-time high for February

The cattle market traded higher Thursday afternoon following the release of USDA's Outlook Forum report that forecasts higher prices in 2024.

Live cattle futures traded mostly sideways over the week. The February contract lost 37 cents to close at $183.40, and the April contract lost 97 cents to close at $185.60.

"Falling futures helped encourage selling and volumes were sufficient to establish a $2 lower price for the week," the Cattle Report said on Thursday.

Cash trade picked up mid-week, with over 50,000 head sold through Thursday afternoon. Live steers sold from $178-183, and dressed steers sold from $282-289.

"Monday's trade might seem a little weak given that cash cattle prices rallied anywhere from $4 to $10 higher last week," ShayLe Stewart, DTN livestock analyst, wrote early in the week in her midday comments. "It's not that traders/cattlemen have already forgotten what the market accomplished last week but rather that they're wondering what's to come."

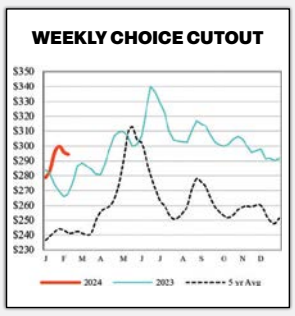
Cash trade for the week ending Feb. 11 totaled 83,088 head. Live steers averaged $181.04, and dressed steers averaged $287.15.

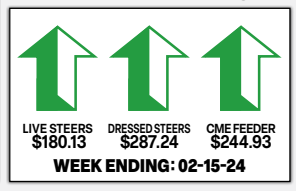
"Since the major December cash fed cattle low, cash has rallied $12.44/cwt, regaining 62% of the entire break from the June 2023 all-time high to the December low," wrote Cassie Fish, market analyst, in The Beef on Thursday. "And the market is about $20/cwt higher than it was a year ago and remains at an all-time cash fed cattle price high for any February in history."

The national weekly direct beef type price distribution for the week of Feb. 5-12 was the following on a live basis:

- Negotiated purchases: $180.99.
- Formula net purchases: $179.94.
- Forward contract net purchases: $184.75.

See MARKETS on page 49





PERIODICAL : Time Sensitive Priority Handling

COMMENTS

Long run

CROW

It's easy to be euphoric about the cattle business right now with record prices on all classes of cattle and the market watchers telling us that this market will continue for some time. After the 2014 drought, cattlemen were in a hurry to restock and bred heifer prices were sky high at that time. One thing I've learned over my years in this business is that a strong market never lives as long as the pundits say.

In the long run, say 20 years from now, what's the cattle/beef industry going to look like? We have spent the last 30 years developing beef demand and have dramatically increased production and quality. We'll probably do the same during this cycle.

I've always thought of the beef industry as a growth industry; we can sell beef at a much higher level than ever before. However, can we grow the nation's cow herd going forward and who is going to do it? We need to start worrying about the supply side of beef calves. The beef cow herd is the lowest it's been since 1951. We need more production to maintain demand and grow this industry. Right now, the industry is just making cattle bigger to maintain beef tonnage.

The beef cow herd was down 2.5% from last year and is expected to decline again in 2024. The estimated calf crop is expected to be 33.15 million head, 2.5% lower than 2022. The replacement heifer category was down 1.4% from last year, but last year's numbers were revised downward and were actually down to 4.9 million head, down 10% from 2022.

The recent Ag Census report revealed the industry is shrinking. "Farms from 5 to 5,000 cattle was down sharply from the previous count five years ago. In 2022, some 593k farms reported cattle sales, a decline of 119k farms or 17%. But that's because the number of farms selling just a handful of cattle declined. About 74% of the farms reporting cattle sales in 2022 sold fewer than 50 head of cattle. This is also the group that accounted for the bulk of the decline in the number of cattle selling farms, from 541k in 2017 to 443k in 2022," according to the Daily Livestock Report.

The Cattle Report reported recently, "The effort to tame inflation is not a complete action as the government CPI report released last week informed us. The rise of prices 3.1% over last year was higher than expected and sent the stock market and cattle futures lower. Breaking the strong hold of inflation on food prices is a top priority. Retailers have held tight on beef prices knowing the supplies are tight and margins destined to dwindle. The impact to cattle owners is a dimming view of interest rate cuts or at least a delay and only maybe two cuts this year instead of 5-7 cuts as some forecast.

"This inventory report will likely be the bottom of the cycle and 2024 will begin the rebuilding necessary to restore beef to its proper place in the diet. Heifers held back for breeding in 2023 were 2% under 2022, but current calf prices are destined to signal breeders to hold back heifers this year, weather permitting. Culling of cows also is likely to reverse a recent trend that has seen cull rates escalate during the past several years to 12-13% from a more normalized 10%."

They also said, "From a practical standpoint and to those operating commercially in the industry, capturing a margin in the beef business will be tough. Stocker and growers will fight sky high calf prices while feedlots fight an ever-declining pool of feeder cattle that will force some pens to go empty. In the immediate future supplies of cattle on winter grain fields is down 2% from prior year forcing curtailed placements this spring."

I'm concerned about our ability to grow this industry; Mother Nature is always a concern. However, there are other concerns: government is always pestering agriculture, upcoming tax legislation is a worry over death taxes and regulation is always a headwind for ag. Then there are interest rates—which don't look like they are coming down soon—the diminishing supply of land, and whether the young crowd is going to stay and run the family ranch. If we only have 2-3 years of profitability out of 10 years, it's not going to motivate young ranchers, unless they just love the business. Pray for spring rains. — **PETE CROW**

DITTMER'S TAKE

CRITICAL FUTURE FOCUS

The National Cattlemen's Beef Association (NCBA), Cattlemen's Beef Board and other cattle industry groups met in Orlando recently.

NCBA was definitely focused on the future, with traceability discussions, tax legislation preparations, the near-term focus on beef demand and cattle numbers, the duration of El Niño and the possibility of a better economy and political climate by next year.

NCBA is thoroughly preparing to argue tax policy with hard numbers and evidence of the effect on the cattle industry of losing the better tax treatment of the 2017 Tax Cuts and Jobs Act. That law expires at the end of 2025 unless Congress acts to keep or improve it, or lets it expire to raise more government revenue for the social engineering priorities.

The economic facts escape the political left. Even a recent study from the universities of Princeton, Harvard and Chicago, and the National Bureau of Economic Research, confirmed that the 2017 tax cuts, while cutting tax rates, stimulated business investment, increased wage rates and in a couple years, increased government revenue because of economic growth, more jobs and more business investment.

The death tax regulations are most critical for the cattle industry, along with closely related provisions for the step-up in basis and for special use valuation for land and equipment. There is also a qualified business income deduction rule that reduces pass-through taxable business income and Section 1031 like-kind exchanges.

NCBA's Kent Bacus, executive director of government affairs, pointed out that half of the members of Congress weren't around for the 2017 tax bill so education will be vital. The House bill to push for a flat-out death tax repeal has 166 co-sponsors so far.

To gather more background data, NCBA is asking members to take a tax survey, so they can present congressional members and staff with real-world data on the benefits of the present system and the damage losing it would incur. Use your phone or computer to access the survey: tinyurl.com/53tnx9jf.

The Cattle Contracts Library (CCL) Working Group's report on USDA's pilot program was discussed at the Live Cattle Marketing Committee. The pilot is funded for now and up for discussion going forward.

The 11-member working group's report recommended no changes to NCBA's existing supporting resolution, but the extensive report laid out pros and cons representing industry opinions so far, with detail in the background report. Interestingly, the working group was "evenly divided" as to whether the CCL was a "useful tool to producers."

For pros: it provides Livestock Mandatory Reporting (LMR) info in a more user-friendly format and can provide actionable information for cattlemen. The con opinion doesn't like that the data is sourced from only the Big Four packers and is concerned those packers will be able to analyze and use the data better than cattlemen.

Adjustments to the program could include expanding the data to all LMR packers, revisions to confidentiality rules and base price adjustment revisions.

The background report from Terrain is available here: tinyurl.com/3fm6extk.

Cattle industry vulnerability and USDA's animal disease traceability proposed rule were big topics in the Animal Health and Well-Being Committee. All the rhetoric and misinformation aside, the issue is simple to many: A foreign disease outbreak like foot-and-mouth disease could decimate our domestic and foreign markets overnight.

The bank of vaccines is one important tool. But vaccinating or eliminating animals cannot stop the spread of disease unless we know very quickly when, where and which animals, to limit damage.

The $10 billion in export sales would be at risk for an unknown period of time ($425/fed animal). That supply would flood the domestic market and drive down prices for everyone.

NCBA's resolution has a long list of recommendations but key points include keeping cattle ID information confidential; utilizing low-cost tagging devices and readers supplied by government funds where possible; operation at the speed of commerce; non-interference with state brand activities; and allowance for cattle movement between adjoining states on pasture-to-pasture permits, subject to state animal health officials' control.

The resolution also supports electronic devices on interstate movement of intact cattle older than 18 months, show and rodeo cattle, and dairy cattle. It also supports a private, industry-managed, non-governmental independent database collaborator to handle the data for animal ID number, time, date and location. The system must coordinate with the USDA's Animal Health Event Repository and follow a defined process for animal health officials to interact with the Independent Database Collaborator in the event of a disease event of national significance. — **Steve Dittmer, *WLJ* columnist**

(Steve Dittmer is the author of the Agribusiness Freedom Foundation newsletter. Views in the column do not necessarily represent the views or opinions of* WLJ *or its editorial staff.)

OBITUARY

Ann Weir Tracy; 1946-2024

Ann Marie Weir Tracy was born on Nov. 21, 1946, in Lakeview, OR, and passed away on Feb. 2, 2024, at St. Luke's Medical Center in Boise, ID, after bravely facing the many challenges associated with Alzheimer's disease. She was surrounded by her family.

Ann was raised by her parents, Robert L. Weir and Margaret "Peggy" Doughty Weir, in Lakeview. Ann and her sister, Cinda, were raised on the Weir Ranch in the Crooked Creek Valley where Ann ultimately lived most of her life.

After graduating from Lakeview High School in 1965, Ann attended Oregon State University (OSU) in Corvallis, OR, for one year until being admitted to what was formerly the University of Oregon Dental School in Portland, OR. She graduated from dental hygiene school in 1968. She then returned to OSU for her final year, graduating in 1969 with a bachelor's of science degree.

Ann married William "Bill" Tracy at St. Patrick Catholic Church in Lakeview on Aug. 24, 1968. Ann and Bill lived in Bend, OR, from 1968 to 1970, and then moved home to Ann's family's ranch in the Crooked Creek Valley. Ann commuted to Ashland, OR, in 1971 to obtain her teaching certification from Southern Oregon State College. She taught sixth grade for two years at A.D. Hay School in Lakeview. Ann later worked as a dental hygienist for 39 years.

Bill and Ann raised cattle on the ranch while growing the business over time together with their two daughters, Jayne and Jill. Bill and Ann enjoyed visits from their nephews who spent summers and school vacations working on the ranch. Over the years they ran cattle in the Crooked Creek Valley, Drews Valley where Bill was raised, and on the "desert" in North Lake County near Abert and Alkali lakes. Together, they embraced the usual challenges associated with ranching and agriculture. Ann was a skilled ranch hand; she was still gathering cattle on her late father's horse, Sundance, into her 60s in her Vic Cormie saddle.

Ann was an active member of many organizations. She was the chairwoman of the National Beef Cook-off in Portland in 1989. Bill and Ann enjoyed traveling to several states for these national events, leading up to the year Ann was the chair. She was active in the Oregon Cattlewomen, Lake County Cattlewomen and Soroptimist International of Lakeview. Ann was instrumental in the opening of the Lake County Round-Up Past Presidents' Ed Garrett Museum in 1993, helping with content and display. She served as a school board member for Lake County School District 7 from 1984 until 1992. She served as a trustee on the Bernard Daly Educational Fund Board of Trustees from 2000 to 2018. She took great pride in being a part of organizations that promoted the beef industry, improved the lives of women and girls, and facilitated scholarships so that high school graduates in Lake County could pursue higher education. Ann was a Lake County Round-Up Princess in 1963.

Ann loved sewing, crafting, flower arranging and spent many hours in her beautiful yard at the ranch. Her daughters always said she could get more done in a few hours than most people do in a day. She was a pro at preparing hot meals for the branding crew (neighbors and friends) on generator power, and there is no doubt Ann's branding food incentivized the crew to show up year after year. She spent many days gathering and working cattle, and also loved taking care of her dental hygiene patients. She and Bill never missed their daughters' many sporting events and activities and spent hours driving over the mountain passes to watch. Ann was very proud of her two daughters, Jayne and Jill, along with her four grandchildren, Flynn, Piper and Cash Davis, and Jack Machado. She enjoyed being "Grammy" to her grandchildren.

Ann is survived by her husband of 55 years, Bill; daughter Jayne (Jarrod) Davis and grandchildren Flynn, Piper and Cash, all of Boise; and daughter Jill Tracy and grandson, Jack, of Paso Robles, CA. She is also survived by her sister, Cinda Weir (Steve) Holderman of Ontario, OR, and many nieces and nephews. Ann was preceded in death by her parents, Robert and Margaret Weir.

WLJ

Letters to the editor: Letters for publication must be no longer than 675 words, must refer to an article that has appeared within the month, and must include the writer's name, address and phone number. Addresses and phone numbers will not be published. Letters may be shortened for space requirements. Send a letter to the editor by emailing editorial@wlj.net or mailing it to Western Livestock Journal, Attn: Editorial Dept., 6021 S Syracuse Way, Ste #103, Greenwood Village, CO 80111.

The national livestock weekly • Since 1922 • Western Livestock Journal LLC • 6021 S Syracuse Way, Ste #103, Greenwood Village, CO 80111
www.wlj.net • 303-722-7600 • Fax 303-722-0155

Member IPC

PRESIDENT
LOGAN IPSEN
New Plymouth, ID
916-947-2392
logan@wlj.net

EDITORIAL@WLJ.NET
ANNA MILLER
Managing Editor
720-372-2353 • anna@wlj.net
CHARLES WALLACE
Contributing Editor
805-814-2017 • charles@wlj.net

ADVERTISING@WLJ.NET
KIRBY BRINCEFIELD
Operations Manager
720-716-3363 • kirby@wlj.net
MIKE OLDCORN
Advertising Coordinator & Graphic Design
720-370-9095 • mike@wlj.net
TRISTAN MARTIN
Advertising Coordinator & Graphic Design
720-372-1763 • tristan@wlj.net
TOM WHITE
Real Estate Advertising Specialist
720-370-7977 • tom@wlj.net

FIELD REPS
LANETTE FRYE
Commercial Advertising Representative
Three Forks, MT
406-855-3172 • lanette@wlj.net
DEVIN MURNIN
Director of Field Services
Billings, MT
406-696-1502 • devin@wlj.net
JARED PATTERSON
Caldwell, ID • 208-312-2386 • jared@wlj.net
TY GROSHANS
Akron, CO • 970-818-6016 • ty@wlj.net

CIRCULATION@WLJ.NET
HANNAH JACKSON
Circulation Manager & Copy Editor
720-370-8275 • hannah@wlj.net

CLASSIFIED@WLJ.NET
TOM WHITE
Classifieds Manager
720-370-7977 • tom@wlj.net

PUBLISHER EMERITUS
PETE CROW
Publisher Emeritus • pete@wlj.net

WESTERN LIVESTOCK JOURNAL (ISSN 0094-6710, USPS 678660) is published weekly (52 issues annually, plus special features) by Western Livestock Journal LLC, 6021 S Syracuse Way, Ste #103, Greenwood Village, CO 80111. Website: www.wlj.net. Email: advertising@wlj.net or editorial@wlj.net. U.S. subscription rates: 1 year - $55, 2 years - $85, 3 years - $110. Single-copy price: $1.50. Periodicals postage paid at Denver, CO, and at additional mailing offices. POSTMASTER: Send address changes to Western Livestock Journal, P.O. Box 370930, Denver, CO 80237-0930.

Study: Apex predators not a quick fix for restoring ecosystems

A Colorado State University (CSU) experiment spanning more than two decades has found that removal of apex predators from an ecosystem can create lasting changes that are not reversed after they return—at least, not for a very long time.

The study, funded by the National Science Foundation and published in Ecological Monographs, challenges the commonly held belief that the reintroduction of wolves to Yellowstone National Park restored an ecosystem degraded by their absence.

Researchers in CSU's Warner College of Natural Resources examined the effects of three apex predators—carnivores at the top of the food chain not preyed on by other animals—in Yellowstone National Park. Depleted populations of cougars and grizzly bears naturally recovered about the same time wolves were reintroduced to the park in 1995. The absence of these predators for nearly a century transformed the food web and landscape.

Yellowstone's northern range shifted from willow and aspen stands along small streams with beaver activity to grasslands due to intensive browsing by elk. The widespread changes stabilized into an alternative ecological state that resisted returning to previous conditions once the carnivores were restored, according to authors of the study, Tom Hobbs and David Cooper.

This designed experiment conducted in Yellowstone is the longest of its kind and adds to evidence supporting the theory that degradation of ecosystems may not be reversed when harmful stressors are mitigated.

"When you disturb ecosystems by changing the makeup of a food web, it can lead to lasting changes that are not quickly fixed," said Hobbs, lead author and professor emeritus with the Department of Ecosystem Science and Sustainability and the Natural Resource Ecology Laboratory. "We can't rule out the possibility that the ecosystem will be restored over the next 40 years as a result of the return of apex predators. All we can be sure of is what's observable now—the ecosystem has not responded dramatically to the restored food web."

Though not a quick and easy solution, Hobbs said, restoration of apex predators produces healthier ecosystems in the long run.

"The conservation message is don't lose them in the first place," Hobbs said. "Keep the food web intact, because there's not a quick fix for losing top predators from ecosystems."

Can CO learn from Yellowstone?

Colorado Parks and Wildlife introduced 10 wolves to the state Dec. 18-22 with plans to bring in more in coming years. Wolves were eradicated in the state by the mid-1940s, but Colorado voters approved their restoration by a narrow margin in 2020.

This study may hold lessons about how restoring apex predators affects the ecosystem, but Hobbs said that the environmental degradation resulting from Yellowstone's policy not to cull elk was never replicated in Colorado.

"Unlike Yellowstone, Colorado's landscapes have not experienced widespread excessive grazing or browsing from elk," Hobbs said. "The state has done a good job of managing elk populations using hunting."

Hobbs and Cooper said there are many good reasons to restore wolves; just don't expect them to cause immediate ecosystem improvements.

"Our work supports the fact that wolves are important components of ecosystems," said Cooper, a research scientist emeritus in the Department of Forest and Rangeland Stewardship. "They will have some ecosystem benefits by reducing some large herbivore populations. Over the next hundred years, they'll have a greater role in regulating some of the ecological processes that we've been studying."

Wolves and cougars were wiped out in Yellowstone by the early 1920s. Without apex predators or human hunters to control their population, elk fed on the willows along small streams in Yellowstone's northern range, depleting beavers' food supply and building materials and causing them to abandon the streams in favor of more suitable areas.

Historically, beavers and willows relied on each other to thrive. Flooding caused by beaver dams created favorable soil moisture conditions for willows, and willows provided food and dam-building materials for beavers. Without beaver-engineered flooding, small streams in the northern range cut deeper into the landscape, disconnecting roots of willows from groundwater. Willows never recovered their former height and density.

Following the reintroduction of wolves to the park in 1995, as cougar and grizzly populations were rebounding on their own, the elk population dropped from both predation and hunting by humans along park borders.

However, overall browsing of woody food sources has not declined proportionally. As the number of elk has decreased, bison herds have increased. Yellowstone's carnivores typically don't prey on bison because their large size makes them dangerous.

Long-term experiment

In 2001, CSU ecologists began an experiment to gauge whether the Yellowstone ecosystem would recover due to the restoration of apex predators. They established four study areas in the park's northern range, fenced off eight plots to prevent browsing and constructed simulated beaver dams in some fenced and non-fenced plots to raise the water table. They also left control areas unaltered. In 2009, they added 21 more control plots to ensure the results of their experiment were representative of the landscape.

If predators regulated the elk population, preventing them from cutting down willows, the landscape would hypothetically return to its previous state. Instead, the willows remained short on control plots, while the fenced sites with simulated dams showed dramatic recovery.

Willows grew more than three times taller in the fenced, dammed areas than in the control plots, indicating the importance of groundwater access in addition to mitigation of browsing.

By manipulating one factor at a time—browsing and hydrology—at many sites for a long time, the researchers were able to show that carnivores were not causing landscape restoration.

"We learned from the science that it was way more complicated," Cooper said.

"Our result is well supported by ecological theory and empirical results from all over the world," Hobbs added. "Disturbing food webs can cause persistent changes in ecosystems."

Research in Yellowstone is common, but this study was rare in its manipulation of the landscape and its duration. Hobbs and Cooper worked closely with park management and biologists, including Yellowstone National Park Senior Wildlife Biologist Daniel Stahler, to answer questions relevant to the park's needs and share results to help guide park policy.

"This research contributes greatly to our understanding of Yellowstone by teasing out the degree to which complex links in a food web affect ecosystems under native species recovery," Stahler said. "Importantly, it is among few published studies to date on the Yellowstone ecosystem that highlight that not just wolves, but multiple predator species together have contributed to changes in elk abundance. This point has ramifications for how we evaluate how complex ecosystems respond to carnivore presence and absence."

He continued, "This long-term research conducted by the CSU team also highlights the value of national parks in helping us understand ecological processes to better protect ecosystems. We should not only cherish our national parks because they protect, preserve and allow people to enjoy nature, but because they provide a place where well-designed science can elevate our understanding of its complexity."— **Jayme DeLoss, CSU**

Reducing hay waste when supplies are low

After two years of droughts in Missouri, hay supplies are low, with many producers feeding hay during the summer months and lacking the pasture growth to get the tonnage comparable to previous year's hay crops. Many producers in southern Missouri reported 50-75% reductions in first-cutting hay crops in 2023.

With such a low availability of hay in the state and high input costs, the price of hay has increased, which adds insult to injury for livestock producers. Minimizing hay waste should be at the forefront of the minds of producers this winter.

Here are some tips to reduce hay waste:

Reduce waste from rot caused by outside storage.

Storing hay inside a barn is the gold standard for storage. If hay is not rained on, it will maintain its quality indefinitely apart from vitamins A and E, which can reduce slightly over time. When hay is stored outside and allowed to be rained and snowed on, spoilage occurs on the outer edge of the bale. Even a couple inches of external spoilage can account for major losses of valuable hay for livestock.

While reducing loss during storage is important, not all farms have adequate barn storage for all of their hay. In this case, producers should consider how they can minimize moisture exposure on the top of bales as well as from the ground.

Stacking bales in a pyramid shape and covering with tarps is a great way to reduce weathering from rain and snow. Also, storing bales on pallets, railroad ties or a raised gravel or concrete pad is an excellent way to reduce spoilage of the bale from ground moisture.

Further, if storing round bales in rows, farmers should leave a few feet in between the rows to allow for better airflow and to prevent rain pooling and seeping into the bales when the rounded edges of the bales are touching.

Consider hay feeders or unrolling.

Most farmers would agree that giving any type of livestock access to a bale of hay without a feeder leads to more waste. Research shows that feeding without some type of hay feeder can result in upwards of 45-57% wastage, depending on the class of livestock and the number of animals.

While there is a plethora of hay feeders available at varying price points, using any type of hay feeder will reduce hay waste compared to no feeder. Within the many round bale feeder options, choosing a ring that has an enclosed bottom or one that suspends the bale off the wet ground will help reduce waste.

Some producers prefer to unroll their hay in their pastures. This is an excellent option for more evenly distributing hay waste and manure across the pasture. Taking advantage of this fertilizer wrapped up in net wrap can make improvements to the soil over time.

However, when multiple days' worth of hay is unrolled at once, unrolling hay can have upwards of 40% waste. Producers should consider unrolling only one day's worth of hay at a time, reducing that waste to around 12%.

Feed less hay more often.

Another way to stretch an operation's hay supply and reduce waste is to feed smaller amounts of hay more often. Feeding one day's worth of hay will reduce the waste compared to feeding three days' worth.

Most livestock should consume 2-3.5% of their body weight in dry matter every day. Calculating daily intake depends on the stage of production of the animals and size of the animals. For example, heavy bred cows that average 1,300 pounds will eat about 2.5% of their bodyweight in dry matter per day. Assuming these cows are being fed hay that is 90% dry matter and 10% moisture, here's how to do the math:

- 1,300-lb. cow X 0.025 = 32.5 lbs. of dry matter/day.
- 32.5 lbs. of dry matter/0.9 = 36 lbs. as fed/cow/day.

Ultimately, waste happens during storage as well as feeding and can be utilized as fertilizer for pastures. However, if the goal is to reduce waste, producers should consider how they can minimize moisture infiltration of the bales during storage and feeding. Farmers should also aim to limit the amount of hay that animals can bed down in and defecate on by using a hay feeder and by feeding less hay more often. — **University of Missouri Extension**

Percent of dry matter of hay lost based on size of bale and depth of weathering on the bale

	Depth of the outer layer (inches)				
		2"	4"	6"	8"
Bale diameter (feet)	4 feet	16%	31%	44%	56%
	5 feet	13%	25%	36%	46%
	6 feet	11%	21%	31%	40%

Source: Missouri Hay School curriculum

YOUTH OPPORTUNITIES

(In an effort to serve the next generation of livestock producers, WLJ's Youth Opportunities calendar lists internship and scholarship information for agricultural- and livestock-focused students, listed by application deadline. If you have an internship or scholarship to announce, please email it to editorial@wlj.net.)

Feb. 23 – The National Cattlemen's Beef Association (NCBA) is providing multiple internship opportunities in NCBA's offices in Denver, CO, and Washington, D.C. Details: jobs.keldair.com/ncba.

Feb. 29 – The Raymond Ansotegui Family, in partnership with the Montana Stockgrowers Foundation, is accepting applications for the 2024 Dr. Raymond Ansotegui Overeducated Cowboy Scholarships. Details: www.mtbeeffoundation.org.

March 1 – The Livestock Marketing Association's Scholarship Program is now open for graduating high school seniors or students currently enrolled at a higher institution. Up to nine post-secondary applicants will receive a $2,500 one-time scholarship and one auction school applicant will receive a one-time scholarship of up to $2,500 in tuition to an auction school program. Details: lmaweb.com.

March 31 – Applications are open for the Montana Stockgrowers Association Marketing & Communications Summer Internship. Details: www.mtbeef.org/careers.

May 1 – Angus Foundation scholarship applications are now open. Applicants for undergraduate and graduate scholarships must have, at one time, been a member of the National Junior Angus Association and currently be an active junior, regular or life member of the American Angus Association. Details: AngusFoundation.org.

Lot 1 Spring Cove Essential 19L
REG 20653502
CED+13 BW-.1 WW+82 YW+138
Milk+29 CW+ +58 Marb+.84 Rib +.71 $M+85

Lot 87 Spring Cove Feat 202K
REG 20669600
CED+11 BW+1.2 WW+76 YW+121
Milk+28 CW+61 Marb+.66 RE+.97 $M+75

Lot 51 Spring Cove Feat 31L
REG 20653541
CED+9 BW+.2 WW+66 YW+114
Milk+17 CW+52 Marb+.65 RE+.71 $M+92

Lot 36 Spring Cove Enforcer L159
REG 20755080
CED+11 BW+1.0 WW+84 YW+148
Milk+33 CW+65 Marb+1.11 RE+.75 $M+68

Lot 85 Spring Cove Grant 200K
REG 20669598
CED+10 BW-.5 WW+79 YW+135
Milk+27 CW+59 Marb+1.02 RE+.70 $M+94

Lot 85

Lot 23 Spring Cove Inspire L30
REG 20683873
CED+9 BW+.6 WW+77 YW+129
Milk+25 CW+56 Marb+.52 RE+.71 $M+68

Lot 37 - Spring Cove Essential 37L
REG 20654341
CED+7 BW+1.9 WW+87 YW+140
Milk+20 CW+59 Marb+1.09 Rib+.25 $M+87

Lot 86 Spring Cove Sherman 201K
REG 20669599
CED+11 BW+.5 WW+80 YW+131
Milk+25 CW+46 Marb+.1.12 RE+.61 $M+92

Lot 59 Spring Cove Top Cut 3001
REG 20653060
CED+12 BW+.6 WW+76 YW+141
Milk+24 CW+48 Marb+.1.53 RE+.29 $M+75

Lot 135 Spring Cove Feat L73
REG 20683913
CED+9 BW-.1 WW+63 YW+102
Milk+23 CW+45 Marb+.75 RE+1.09 $M+82

Spring Cove Ranch Bull & Female Sale

Monday, March 11, 2024 in Bliss, Idaho at 1:00 pm MDT

Selling 230 Angus Bulls: 2 's, Falls and yearlings

& 20 yearling registered heifers and 20 comm heifers.

Western Video Market
IN PARTNERSHIP WITH
DVAuction

105 Years 1919 2024 Spring Cove Ranch

To receive a sale catalog in the mail call or text:

208-320-8803

View catalog online at:

www.springcoveranch.com

Find us on Facebook

Feeding for the future: Maternal protein intake

For 75% of the year, beef producers are generally feeding two animals: the cow and her unborn calf. Additionally, a cow may be growing a fetus while nursing a calf at her side.

Maternal nutrition is extremely important not only to the cow, but also to her unborn calf who relies solely on her for its nutrition. Maternal nutrition can affect offspring performance by altering fetal development. Muscle fibers and fat cells that are formed during gestation set the stage for a calf's future performance.

For example, Figure 1 indicates the months of gestation where muscle fibers and fat cells are forming. If developing calves experience a nutrient deficiency during this period, it may reduce muscle fiber number and subsequent muscle mass in offspring. This can lead to lower cutability of a carcass once the calf reaches market weight.

Steer calf performance

An animal's phenotype is determined by the genes inherited from its parents, but also environmental factors. These factors include nutrition, weather and various other variables that can impact that animal's performance potential.

A study conducted at the University of Wyoming studied the impact of maternal nutrition on future calf performance. They examined maternal protein nutrition during mid-gestation. One group grazed 6% crude protein native pastures while the other grazed 11% crude protein irrigated and fertilized pastures.

At the conclusion of the study, they reported that calves born to dams who grazed lower quality pastures produced offspring had lighter carcass weights and produced less tender steaks.

Heifer calf performance

Female offspring's performance in the breeding herd can also be impacted by maternal nutrition. Researchers at the University of Nebraska reported that dams grazing dormant range or corn residue during late gestation that were offered a supplemental protein source, produced heifers that attained puberty earlier and had higher pregnancy rates compared to offspring from non-supplemented dams.

In a similar study, researchers reported that heifer offspring from protein-supplemented dams were more likely to calve in the first 21 days of the calving season.

Bottom line

Feed costs for a pregnant female during the winter months can be extremely high, and feed can be difficult to source. Even though it may be tempting to cut corners where possible, it is important to not limit feed resources to gestating females. Limiting the dam on her nutritional needs has the potential to influence offspring performance far into the future.

As always, discuss nutritional plans and concerns with your Extension specialist or beef nutritionist to determine the best course of action for your herd. — **Madison Kovarna, SDSU Extension beef nutrition field specialist**

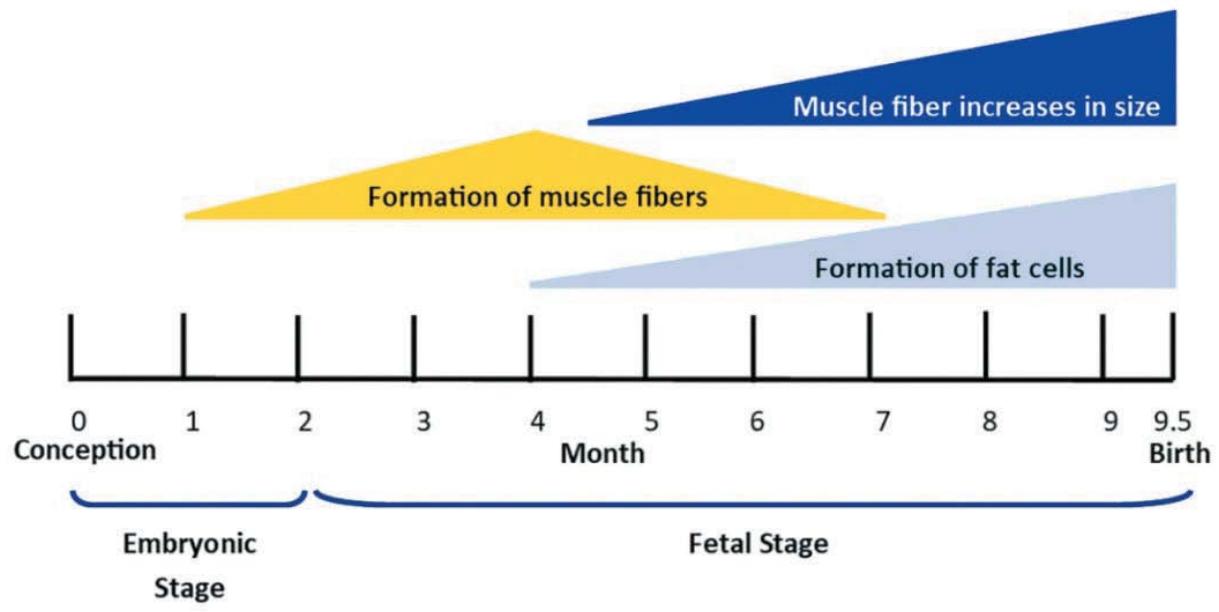


Figure 1. Fetal development timeline. Adapted from D. Llewellyn, S. Smith, M. Du (2012), Washington State University.

COMING EVENTS

(Send calendar of events information to editorial@wlj.net.)

March 24 – Join the California Cattlemen's Association at the 43rd Steak and Eggs Legislative and Regulatory Breakfast + Lobby Day. Details: tinyurl.com/2s76htyd.

LUFKIN CATTLE COMPANY

ANNUAL BULL SALE MARCH 20, 2024

At the Ranch | Salmon, Idaho

125 Yearling Bulls / All PAP Tested

LOT 1

CED	+7
BW	+0
WW	+81
YR	+144
Milk	+27

LCC Fair-N-Square 353
Sire: Myers Fair-N-Square M39
MGS: Sitz Logo 12964

LOT 2

CED	+4
BW	+3.2
WW	+75
YR	+133
Milk	+31

LCC Thedford 393
Sire: Hoffman Thedford
MGS: Leadore Statement B142

LOT 3

CED	+3
BW	+1.6
WW	+84
YR	+140
Milk	+28

LCC Incentive 3153
Sire: SITZ Incentive 704H
MGS: Sitz Logo 12964

LOT 5

CED	+8
BW	+1.7
WW	+73
YR	+133
Milk	+24

LCC Incentive 3114
Sire: SITZ Incentive 704H
MGS: Leadore Upward Z23

LOT 7

CED	+4
BW	+3.0
WW	+74
YR	+125
Milk	+26

LCC Resilient 3174
Sire: Sitz Resilient 10208
MGS: Leadore Upward B677

LOT 11

CED	+4
BW	+2.3
WW	+91
YR	+151
Milk	+24

LCC Tahoe 312
Sire: Tehama Tahoe B767
MGS: Sitz Resilient 10208

LOT 18

CED	-2
BW	+5.2
WW	+73
YR	+130
Milk	+22

LCC Accomplishment 3172
Sire: Sitz Accomplishment 720F
MGS: Sitz Final Statement 618X

LOT 28

CED	+15
BW	-2.0
WW	+70
YR	+121
Milk	+26

LCC Iconic L20
Sire: DB Iconic G95
MGS: KG Retail Value 8248

Featured Sires: Sitz Incentive 704H, Myers Fair-N-Square M39, Sitz Accomplishment 720F Square B True North 8052, Sitz Resilient 10208, DB Iconic G905

CARL & ROBIN LUFKIN

71 Price Creek Road | Salmon, Idaho
208.303.0438 | lufkincattle@gmail.com

Free delivery in Idaho and adjoining states | Semen tested | Ultrasound available | PAP Tested

RFM
RON FRYE MARKETING
406.600.7514

2022 Ag Census released; number of farms declined

The U.S. lost nearly 142,000 farms and 20.1 million ag acres from 2017 to 2022, which Agriculture Secretary Tom Vilsack said should be a "wake-up call" for policymakers.

USDA released its 2022 Ag Census on Feb. 13, a five-year survey that takes a snapshot of American farmers and their operations. The data is used by policymakers to help determine local funding for a range of USDA programs as well as highlight the needs of farmers and ranchers going forward.

The 2022 Ag Census came after the impact of the COVID-19 pandemic on agricultural operations. The survey's snapshot also came in a year that had both record net farm income, but also high inflation that affected farmers' input prices.

In an event rolling out the survey results, Vilsack called the loss of both farms and acreage "significant" and "a wake-up call" to USDA and Congress.

"Are we OK with losing that many farms?" Vilsack said. "Are we OK with losing that much farmland or is there a better way? That's the importance of this survey. It allows us to take a snapshot in time and compare what has occurred over the last five-year period and begin asking ourselves questions about the policy formation and the direction that we need to take to correct or deal with some of the challenges that the data presents."

Farms and acres

The 2022 Ag Census showed a decline in farm operations of every size category from the smallest to the largest.

The number of U.S. farms fell below 2 million for the first time, down to 1.9 million farms. The survey shows a loss of 141,733 farms.

The country lost 304,305 farms since the 2007 Ag Census—the last time the Ag Census reported an increase in farms nationally.

Looking at larger farms with 1,000 or more acres, the 2022 Ag Census reports 13,721 fewer farms than five years earlier.

With the smallest farms—those with less than 10 acres—the census showed a drop of 38,733 farms—even after the 2017 Ag Census had reported nearly 50,000 more smaller farm operations compared to 2012.

Acreage

Total farm acreage, including cropland and pasture, was 880.1 million acres in 2022, a loss of more than 20.1 million acres of farm production.

Still, with the decline in overall farm numbers, the average farm size was 463 acres in 2022, up 5% or about 22 acres on average from 2017.

The 20.1 million acres lost from 2017 to 2022 would have supported 43,448 "average size" farm operations.

From 2017 to 2022, crop farmers reported 382.36 million acres planted, more than 14 million acres less than in 2017. The number of crop acres is down nearly 63 million acres since the 1997 Ag Census.

Income, farm concentration

Less than 1% of farm operations, or 16,226 farms, in 2022 reported more than $5 million in sales. Those farms generated $229.6 billion in sales in 2022. Those farms averaged $14.15 million each in sales.

Out of 1.9 million farmers, there were 586,286 farms, or nearly 31% of farms, reporting sales of under $2,500. They combined to generate $406.2 million in sales or an average of $692.83 per farm.

Looking at market concentration, USDA shows just 26,214 farms, about 1.4% of all farms, account for 50% of all sales for all products. Broadening it out, 89,210 farm operations account for 75% of all sales, an average of $12.7 million in revenue for each farm, and those farms average about 2,703 acres in size.

All farm production expenses topped $424.14 billion in 2022, up $97.75 billion from five years earlier, or 23% higher. Livestock feed was valued at $88.37 billion, up $25.75 billion from five years earlier. Fertilizer expenses were $36.14 billion, up $12.6 billion or 34.8%. Hired labor cost $41.8 billion or $10.2 billion more than in 2017.

Demographics

While the country lost 142,000 farms from 2017 to 2022, the number of overall producers was 3.374 million, down about 25,790 producers from 2017.

According to the census, 2.149 million producers were men and 1.224 million were women in 2022. The number of men producers fell by 23,055 from 2017 and the number of women producers declined by 2,735.

Of those farmers, 1.4 million listed farming as their primary occupation while another 1.96 million farmers listed "other."

The majority of farmers—2.28 million—have been on their present farms for more than 10 years. The average number of years on the present farm is 21.2 years.

The average age of farmers in 2022 was 58.1 years old, up from 57.5 years in 2017.

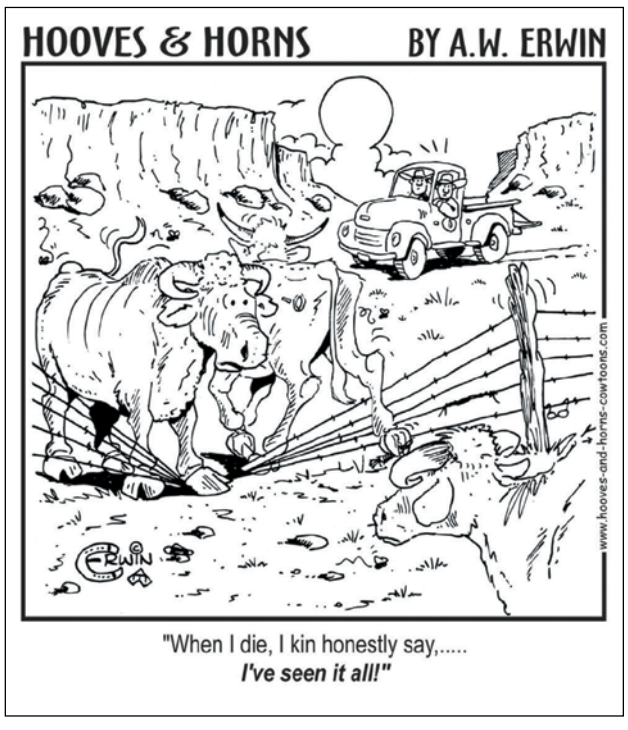
Vilsack pointed to the continued rise in the average age of farmers as a need to encourage more young people into the profession.

"We continue to see the aging nature of our farming community," Vilsack said. "We recognize the importance of making the case to bright young people about the career opportunities and the changes that you have to make a fundamental difference in agriculture and food."

Looking at race, 3.219 million farmers were listed as white and 112,379 farmers reported as Hispanic or Latino. American Indian or Alaskan Natives made up 56,203 farmers while 41,807 farmers were listed as Black or African American.

There were 112,379 farmers listed as "young producers," defined as 34 years of age or younger.

— Chris Clayton, DTN ag policy editor



"When I die, I kin honestly say,.....
I've seen it all!"

Quality in Quantity

Heterosis

Capitalize on the value of using our line bred Hereford bulls on your Angus based cow herd.

230 Hereford Bulls sell in 2 days

58th Annual Production Sales

HOLDEN HEREFORDS

3/11/24
at the ranch, **Valier, MT**

Selling
110 Yearling Bulls
30 18 month old Bulls
35 Elite Females + 25 F1 Black Baldy Heifers

HH Advance 3027L
HH Advance 0159H
x HH Miss Advance 8317F

CED	BW	WW	YW	SC	M	MG	REA	MARB	BMI$	CHB$
1.1	3.9	69	113	1.5	39	73	0.58	0.28	449	156

HH Advance 3052L
HH Advance 0043K
x HH Miss Advance 7112E

CED	BW	WW	YW	SC	M	MG	REA	MARB	BMI$	CHB$
6.1	0.3	64	109	1.7	30	62	0.22	0.51	374	164

COOPER HEREFORDS

3/12/24
at the ranch, **Willow Creek, MT**

Selling
90 Yearling Bulls
30 Fancy Yearling Heifers

CL 1 Domino 365L
CL 1 Domino 0186H
x CL 1 Dominette 736E 1ET

CED	BW	WW	YW	SC	M	MG	REA	MARB	BMI$	CHB$
0.9	2.8	69	107	1.7	31	66	0.42	0.40	425	158

CL 1 Domino 3126L
CL 1 Domino 1176J 1ET
x CL 1 Dominette 9190G 1ET

CED	BW	WW	YW	SC	M	MG	REA	MARB	BMI$	CHB$
-2.2	4.5	76	125	1.2	41	79	0.57	0.28	428	152

www.holdenherefords.com

SUPERIOR LIVESTOCK AUCTION
ALL NEW PUREBRED PLATFORM
bid.superiorlivestock.com | 800.422.2117

Jack Holden *(406) 450-1029*
Jay D Evans *(406) 450-0129*
jtholden@3rivers.net
LiveAuctions.TV

www.cooperherefords.com

Mark Cooper *(406) 539-6885*
Dave Hanson *(406) 570-5519*
mark@cooperherefords.com
The Best of Northern Cattle! NORTHERN LIVESTOCK VIDEO AUCTION

LiveAuctions.TV

Why Line 1?

Get more years use from a Hereford Bull

Uniformity Our line bred programs aim to enhance the predictability and uniformity of your herd. Maintaining a closed line of breeding for over 70 years means HIGHLY perdictable offspring.

Performance Our programs were CHARTER MEMBERS of the Montana Beef Producers Association when it formed in 1957. We've been performance testing for over 65 years, collecting carcass data on ALL yearlings for 30 years, and submitting DNA for GE-EPD evaluation for a decade. Years of data means less guesswork for you!

Maternal Udder quality, milkability, and fertility are of utmost importance. Both herds rank in the top 20% of the breed for MILK.

CSU Spur aims to keep valuable organ meats from landfills

Among the first things Jordan Kraft Lambert did last year as Colorado State University's (CSU) new director of agricultural innovation and partnerships was create a simple spreadsheet. It was an easy way to keep track of what she learned from farmers and ranchers during a problem-finding tour of the state. As she listened, Lambert would open the file, which she'd labeled the "Problem Catalog," and document whatever came up.

"I wanted to map the needs of Colorado farmers and ranchers," Lambert said. "Because sometimes a single problem isn't big enough to solve on its own, but if you have enough other problems that are related you start to get a critical mass that's valuable to go after."

Pretty quickly, one particular challenge surfaced.

Ranchers were having a hard time dealing with certain parts of their butchered cattle: organ meats, also known as offal, such as livers, tongues, hearts and kidneys. Smaller producers especially struggled. Selling ribeye direct to a consumer was no problem but getting rid of the rest was a challenge. Offal is nutritionally dense and desired by many cultures, but there are many U.S. consumers who are unfamiliar with these cuts and don't know how to properly prepare the meat.

> *"A lot of times in ag tech, the solution is something that takes a long time to come to market—new genetic technology or a new piece of software. What's kind of cool about this one is that offal is something you can eat right now."*
>
> —Jordan Kraft Lambert

What's more, if the offal parts don't sell, ranchers have few options other than to pay a processor to dispose of the unwanted meat, a wasteful drag on the bottom line. According to the USDA, byproducts account for about 44% of the average weight of a cow. That means that a small plant processing, say, 10 cattle per day could produce roughly 350 tons of byproducts a year. There's another cost, too. "When we send these meats to landfills," Lambert said, "they rot and emit methane, a potent greenhouse gas."

Grand County rancher Deborah Fitch learned about the offal reality recently when her family purchased a processing facility from another area family getting ready to retire. Fitch was pleasantly surprised by the demand for local beef; dealing with the organ meat, however, was an altogether different problem.

"Very few consumers are familiar with or purchase offal," Finch said. "We have to find creative ways to utilize these parts."

Some of the parts can be made into pet food, and Fitch has found a local restaurant that takes some of the tongues. Still, she said, finding outlets for the other organ meats as well as the bones and hides remains a challenge. "Since we raise these animals," Fitch said, "it's very important to us that we try to find a solution to not waste anything."

Increasing the clientele

Once Lambert had uncovered the offal problem, the ag innovation director opened her problem-solving lens to find solutions. Viewing the challenge through a wide aperture is what helped her identify an opportunity.

As she spoke with colleagues across CSU, including faculty in the Animal Sciences department and a student from the College of Business' Impact MBA program, Lambert learned there are both industries and communities in Colorado that regularly cook with organ meats. What's more, those communities, particularly restaurateurs along the Front Range, were excited by the idea of connecting more directly with producers selling those parts of the animal.

"I talked to all these people and it just kind of snowballed from there," Lambert said.

That work culminated at CSU Spur on Jan. 7 for an event Lambert dubbed the Offal Party—a gathering of ranchers, processors, chefs and the general public to help educate people about the problem and attempt to facilitate some of those connections that might help lead to a fix.

One of the participants is chef Edwin Sandoval, who has worked in some of the finest kitchens along the Front Range and has experience cooking with organ meats. He sees an opportunity to expand the types of dishes that might be enjoyed more broadly by the general public. "The market already exists," Sandoval said. "But I think we can increase the clientele and the number of consumers exposed to these cuts."

Sandoval was born in Honduras where locals dishes are made with tongue and liver but are nothing special. It wasn't until he entered the fine-dining scenes in Colorado Springs and Denver that Sandoval learned more about offal's upscale potential; for example, liver compressed into beautiful pâtés or unconventional cuts used in charcuterie.

Now, Sandoval, who runs Xatrucho Concepts, a private company that deals with everything from catering and special events to restaurant menu development and cooking classes, is looking to blend his culinary training and love of Latin-inspired flavors to interest a broader audience in eating offal.

"If we have, say, beef cheek, and we put our attention to it, it can be as good if not better than short rib," Sandoval said. "So, how can we substitute these cuts that might be overlooked for a more expensive cut and make it the best that it can be?"

A connection to ranching, ag

In an effort to be less wasteful, Hannah Kersting, who helps run her family's Western Slope ranch and serves as CSU's Gunnison County Extension director, recently started requesting the organ meats back from the processor. She has an "offal basket" for sale online, but it doesn't tend to do all that well, and often, those cuts sit in her freezer until she eats them herself or she can cook the meat for her dogs.

"If you've never cooked with these cuts before, it can be intimidating," Kersting said.

Although there might not be much of a market for offal in Gunnison, Kersting is excited by the idea of potentially reaching a wider audience along the Front Range. "I think Spur is the perfect place for this to happen," she said. "People are so far removed from ranches so the event is a cool way to connect them back to ranching and agriculture."

For her part, Lambert is excited that bringing together ranchers and processors and chefs is something that can be done relatively quickly.

"A lot of times in ag tech, the solution is something that takes a long time to come to market—new genetic technology or a new piece of software," Lambert said. "What's kind of cool about this one is that offal is something you can eat right now." — **Christopher Outcalt, CSU College of Agricultural Sciences**

LEGAL LEDGER

Cargill to pay $155K yield grade penalty

USDA reached a consent decision with Cargill to pay $155,000 in fines after the company was investigated for applying inaccurate yield grades. In March 2022, the Agricultural Marketing Service investigated Cargill when it self-reported that its beef grading cameras were installed incorrectly, which led to inaccurate yield grades at its four fed cattle plants. Cargill inaccurately applied yield grades to nearly 325,000 carcasses purchased on a carcass grade and weight basis from August 2021 to March 2022. This resulted in an underpayment of $12,514,804 to cattle sellers. Cargill compensated sellers for any underpayment in May 2022 using corrected yield grades.

Support urged for state inspection

National Association of State Departments of Agriculture (NASDA) members passed an action item at its 2024 Winter Policy Conference to emphasize the need to resume full federal cost-share for state meat and poultry inspection programs. NASDA members urge Congress to require USDA's Food Safety Inspection Service to provide at least a 50% funding match to state departments of agriculture to ensure the viability of state meat and poultry inspection programs. In addition, they ask for an increase in federal appropriations to the agency to fund the state programs. "State meat inspection programs provide services necessary for meat processors in many states," NASDA President and Oklahoma Agriculture Secretary Blayne Arthur said. "Recent funding shortfalls are detrimental to the resilience of state programs and must be immediately addressed."

BLM captures 2,700 feral horses in NV

The Bureau of Land Mangement (BLM) gathered nearly 2,700 feral horses near Winnemucca, NV, in early February. A total of 2,692 horses were gathered, with 2,689 horses removed and three horses released back to the range. "The gather was critical to ensuring the health of public lands within the East Pershing Complex, and the wild horses, both of which are at risk due to herd overpopulation and severe drought conditions," said Sam Burton, BLM Winnemucca District manager. Horses were transported to the Winnemucca Off-Range Corrals located in Paradise Valley, NV, to be prepared for the BLM's adoption program. Horses not adopted or sold will be placed in long-term pastures.

Mealworm company OKed for production

Ÿnsect, a company that produces insect-based proteins, has been granted approval by the Association of American Feed Control Officials to use defatted mealworm proteins within dog nutrition. This marks the first time mealworm-based ingredients have been approved in the U.S. Authorization followed a two-year evaluation process, which included a 6-month trial introducing mealworm-derived ingredients into the diet of dogs. "The authorization opens huge prospects for Ÿnsect, and its pet food brand Sprÿng as pet owners are increasingly becoming aware of both the nutritional and environmental benefits of animal-based alternatives," the company said. Ÿnsect claims 1 kilogram of Sprÿng Protein70 flour emits half as much CO_2 equivalent as lamb or soy flour, and 22 times less than beef flour.

USDA issues $306M in disaster aid

USDA is issuing the final installment of Emergency Relief Program (ERP) payments to producers who incurred natural disaster losses in 2020 and 2021. The department began issuing $306 million to eligible commodity and specialty crop producers in early February. "With remaining funds after initial factoring, USDA was able to put additional money back in the hands of the producers as we strive for the most fair and equitable distribution of available funds to as many producers as possible," said Farm Service Agency Administrator Zach Ducheneaux. Recipients of the additional payment were limited to those who received ERP Phase One payments. Initial payments were subject to a 75% payment factor but were increased to 78.5%. There will be no additional payments issues to the producers for 2020 and 2021 losses.

$136M invested for fire mitigation

The Department of the Interior has announced $138 million in funding from the Bipartisan Infrastructure Law to help protect communities from wildfires for the 2024 fiscal year. "The funding will support the modernization of wildland firefighter training, help reduce the risk of extreme wildfires, rehabilitate burned areas, and advance fire science," the Interior said. The investment builds on an overall $67 million previously allocated under the law since it went into effect in 2022. The Bipartisan Infrastructure Law also established the Wildland Fire Mitigation and Management Commission, which was charged with making recommendations to improve federal policies related to wildland fires. The commission released its first report last February, which examined aerial firefighting equipment needs and outlined a new management strategy. In September, the group released a report outlining 148 recommendations.

Reliable recordkeeping helps at tax time

Tax season is here! This season can be stressful for farm managers that are unsatisfied with their recordkeeping systems and patterns. Important information to track for farm taxes can be extensive and diverse. Even farmers with keen attention to detail may struggle to feel confident that their records are complete and organized come tax time.

While there is no one right way to organize your records for tax prep, here are some ideas that may help simplify the bulk of paperwork you process:

Utilize secure cloud services via computer and smartphone. Many smartphones have tools now where you can use your phone camera to take photos of documents (receipts, invoices, bills, etc.) and turn the photos into PDFs that you can name, save and sort. You could take the photo immediately when you get a document, name it, save it, back up the files in multiple places, make it accessible from any device you want, and toss the bulk of the paper pieces. If you find a good system that makes sense to you, it can be much easier to sort and pull documents as needed.

Create dedicated accounts/cards/checks. Many farm operations have separate accounts to track income and expenses for avenues of their business and home. Although creating separation of accounts sounds daunting, it can actually save you time and effort in the long run. If you have the ability to work with your bank to set up accounts for certain distinctions/purposes, that can also help with recordkeeping.

Often you can work to have them linked together if you need to do funds transfers, but keep income and expenses separate by account. Then you can pull account statements to do tallies any time. Example: Account for home, account for farm, account for retail sales. Card for home, card for farm, card for retail sales. You could even break expenses down further: one card that is only for farm fuel, or farm supplies or bills. Again, this helps cut down on clutter and make sorting easier. You can even designate digital payments to go to these different accounts (Venmo, Facebook Pay, Square, PayPal, whatever you like to use).

Use a farm account book. For the farm account books to be effective, it is important to reconcile your accounts and fill out the record book at least monthly. This can help you track where you are, where you want to go, and anything that may be falling through the cracks during the year.

Three-ring binders are still valuable! If you prefer to keep paper records and physically handle them, a 3-ring binder, expandable folders and trusty old filing cabinets are still effective tools. Use one to track cattle records (genetics, breeding, birth, death, vaccination, medications). Use another to track inputs on the land (fertilizer, herbicide). Use a third to track bills for services (farm utilities, farm equipment deliveries, gravel, etc.)

Software for your computer is available specifically for farm use. You can choose to use software that is completely on your computer and saved locally or programs that operate online utilizing cloud storage. Read all terms and conditions with cloud storage options. Some will offer certain services for free, but make you pay for additional services. Some will save your data in perpetuity, while some will only save it for a short time.

Like all systems, you should use them frequently to help cut down on the stress that comes at tax time. Oklahoma State Extension has developed a Quicken Agricultural Users Manual for farm businesses using Quicken to complete their farm accounting. Some app-based programs are too diverse to list, but if you would like assistance deciding on if an app will work for you, feel free to reach out! — **Christine Gelley, Ohio State University**

NDSU releases crop budget projections for 2024

The North Dakota State University (NDSU) Extension projected crop budgets for 2024 are available for the state's farmers, said Ron Haugen, NDSU Extension farm management specialist.

The 2024 projected profits vary by region and crop.

"The budgets are guides for large multicounty regions," said Haugen. "Returns and costs can vary considerably between producers within a region. Also, the budgets estimate returns to labor and management with no consideration of price and yield variability or risk. A perfect comparison of crops is not achieved because different levels of labor, management and risk exist.

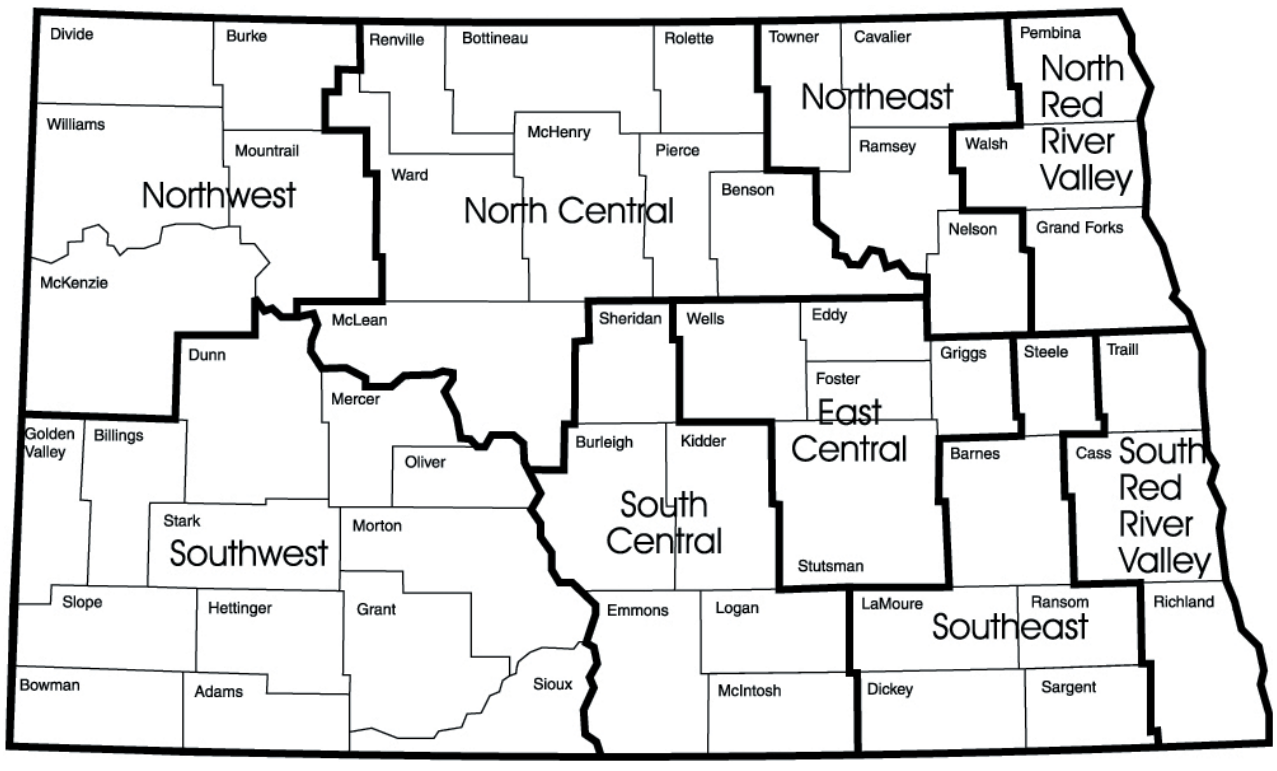
"Generally, most crop budgets in all regions, project a profit for the year, but not as profitable as 2023," said Haugen. "One reason is, in general, commodity prices are lower than 2023."

Fertilizer, chemical and fuel expenses are down, but land costs, repairs and interest are higher.

"Specialty crops may show a positive return, but usually have limited contracts and acreages, and also may have higher risk," said Haugen.

The NDSU Extension-developed budgets are available online at ndsu.ag/cropbudgets, or by searching online for NDSU Crop Budgets. Online, a PDF version is available as well as Excel spreadsheets for producers to fill in their own estimates.

Hard copies are available at NDSU Extension county offices. — **NDSU Extension**



NDSU

The NDSU Extension projected crop budgets are guides for large multi-county regions.

Express Grain CEO to change fraud plea

The former CEO of Greenwood, Mississippi-based Express Grain is set to change his plea just ahead of a scheduled trial on wire fraud charges.

A change of plea hearing for John R. Coleman has been scheduled for Feb. 22 in the U.S. District Court for the District of Northern Mississippi. His trial is set to begin Feb. 26.

Coleman pled not guilty when he was arrested in December 2022 after a grand jury issued a six-count indictment on wire fraud charges. The charges came in connection to Express Grain's Chapter 11 bankruptcy proceedings.

The federal grand jury accused Coleman of defrauding farmers, banks and the Mississippi Department of Agriculture. A charge of wire fraud is punishable by up to 20 years in prison and hundreds of thousands of dollars in fines.

From June 2018 to October 2022, the federal indictment said, Coleman schemed to "obtain money by means of false and fraudulent pretenses, representations and promises. John R. Coleman intentionally misled farmers, lenders and the Mississippi State Board of Agriculture to induce them to deliver grain to Express Grain, lend money to Express Grain and provide Express Grain with warehouse licenses despite Coleman's direct knowledge that Express Grain was in severe financial distress."

According to the indictment, beginning in 2018, Coleman made "material changes" to his company's audited financial statements for 2017, including removing the "emphasis of matter regarding a going concern" paragraph.

On or about June 7, 2018, Coleman allegedly emailed the altered financial statements to the Mississippi Board of Agriculture "claiming that they were the legitimate financial statements" of the company.

The federal indictment alleges Coleman made the same changes to Express Grain's financials in 2018, 2019 and 2020. He then emailed those statements to the state to renew his grain warehouse license.

On or about Sept. 4, 2021, Coleman allegedly emailed fraudulent financial statements to Kansas City, Missouri-based UMB Bank.

On Sept. 22, 2021, UMB Bank requested a warehouse receipt report showing the amount of grain held by the company that "had been pledged as collateral to UMB Bank," as well as the amount of grain pledged or sold to third parties.

In one instance, Coleman claimed 100,000 bushels had been sold to FC Stone in a purchase and sale agreement. The indictment said 2.78 million bushels had been sold to FC Stone, a difference of $30 million.

UMB Bank issued a notice of default to Express Grain demanding the immediate payment of about $70.7 million.

Express Grain filed for bankruptcy on Sept. 29, 2021, according to court records.

Though farmers lost millions of dollars, court records indicate farmer creditors will divide just $9 million as part of a settlement.

In February 2022, UMB Bank purchased Express Grain at an auction for $25 million, according to court records. UMB bought three storage warehouses and a soybean-processing plant. The purchase reduced the company's debt to the bank to $45 million. — **Todd Neeley, DTN staff reporter**

MSGA announces Producer Profitability listening sessions

The Montana Stockgrowers Association (MSGA) will be hosting a slate of listening sessions throughout the spring to seek input and ideas from producers on areas where the American livestock industry can be strengthened.

The listening sessions are part of the organization's Producer Profitability Initiative, a grassroots movement started and led by cattle ranchers who have a vision to create a sustainable future for the American livestock industry. All livestock producers are invited to attend, attendees do not need to be MSGA members. Listening sessions will be held in partnership with livestock markets throughout Montana from February through May.

"The livestock industry has an opportunity to come together with one another like never before. There are many issues that affect ranchers, and at the end of the day we can agree that keeping land in production agriculture and our industry strong and vibrant for generations to come is something we can all rally around," shared Lesley Robinson, MSGA vice president and chair of the Producer Profitability Initiative task force.

The Producer Profitability Initiative encourages participation from beef producers of all ages, management styles, operations large and small, feedlot operators, affiliate businesses, private property owners, and supporters of the livestock industry whose livelihood and identity are tied to ranching and whose focus is to ensure the sustainability of the American livestock industry while providing security for the domestic food supply.

The following listening sessions have been scheduled:

- Tuesday, Feb. 27 at Public Auction Yards in Billings at 5 p.m.
- Tuesday, March 5 at Headwaters Livestock Auction in Three Forks at 5 p.m.
- Monday, March 11 at Dillon Livestock Auction in Dillon at 5p.m.
- Monday, March 18 at Lewistown Livestock Auction in Lewistown at 5 p.m.
- Wednesday, April 10 at Glendive Livestock Exchange in Glendive at 5 p.m.
- Thursday, April 11 at Miles City Livestock Commission in Miles City at 5 p.m.
- Monday, April 22 at Bear Paw Livestock in Chinook after the day's sale.
- Monday April 29 at Five Valleys Livestock Auction in Missoula at 5 p.m.
- Thursday, May 9 at Western Livestock Auction in Great Falls at 5 p.m.

Additional dates will be added in the coming weeks, visit www.mtbeef.org/profitability for the most current schedule.

Earlier this month, MSGA released its Producer Profitability Initiative brief that highlighted five initial focus areas: creating a favorable tax climate, improving government programs, minimizing barriers to entry for young or beginning livestock producers, finding solutions for labor challenges, and developing industry mentorship opportunities.

For additional information on MSGA's Producer Profitability Initiative listening sessions, contact MSGA at 406-442-3420 or a local livestock market. — **MSGA**

Suit claims designation harms state trust lands

LAWSUIT
(from page 1)

spiritual uses by Tribes in the Southwest while protecting livestock grazing and access for hunting and fishing.

The suit contends that mining was allowed in the Kaibab National Forest contingent upon meeting claim and patent prerequisites and other conditions outlined by federal statutes and regulations until the Obama administration issued a moratorium in 2009.

The suit also cites the Arizona Wilderness Act of 1984, passed by Congress to designate specific national forest lands in Arizona as wilderness while exempting certain areas from federal requirements for wilderness study area management. The act's compromise, particularly concerning the "Arizona Strip" region north of the Grand Canyon, aimed to find a balanced solution acceptable to all stakeholders, including addressing mining-related concerns.

For approximately two decades following the Arizona Wilderness Act of 1984, the compromises within it were generally accepted by the involved interest groups. However, with the increasing value of uranium, there was a surge in interest in mining activities, particularly in northern Arizona, which holds significant uranium reserves.

Despite the potential for domestic production, restrictions such as those prohibiting mining in Grand Canyon National Park and adjacent wilderness areas have limited access to these resources, the lawsuit claimed, leading to a reliance on imports from foreign countries. Additionally, the scretary of the Interior in 2012 withdrew over a million acres from location and entry under the General Mining Law for 20 years, the suit continued.

The suit contends the proclamation permanently prohibits new mining activities within its boundaries and that mining operations generate significant fees and tax revenue for both the state and Mohave County. Any reduction in tax contributions from mining could shift the tax burden to other parties or necessitate cuts to essential government services. Additionally, uranium mining has been shown to have significant economic benefits for local communities, with a projected $29 billion boost to economies in northern Arizona and southern Utah over a 42-year period, according to a 2009 study.

The suit also states that the new monument harms state trust land as the monument surrounds portions of it, and the prohibition of construction and development would severely limit the state's ability to maintain the trust lands.

The plaintiffs state that Biden's designation violates legal authority and does not give him the authority to define what constitutes a historical landmark or object of historical or scientific interest. They also claim the designation violates the Arizona-New Mexico Enabling Act by prohibiting development on state trust lands. In addition, the plaintiffs allege that it violates the Arizona Wilderness Act of 1984 as the government lacks the power to change the designated land use under the act.

The plaintiffs are asking the U.S. District Court for the District of Arizona to declare the creation of the monument unlawful and to set aside its designation as a monument. — **Charles Wallace, *WLJ* contributing editor**

When to assist with calving

There are three stages of bovine parturition. Stage 1, dilation of the cervix is variable in length and can occur over hours or days. During Stage 1, you may or may not notice a mucus string hanging from the vulva, cows with less appetite or cows separating themselves from herd mates.

Stage 2 is the delivery of the calf. Stage 2 officially begins with the appearance of the placenta (water bag) at the vulva. Deciding when/if to provide assistance to a female is based on what you observe at the onset and during Stage 2 of the birth process.

Stage 3 is the delivery of the placenta or afterbirth, typically happening within a few hours after delivery of the calf. Understanding the birth process, the normal timelines associated with Stage 2 and what a normal presentation of the calf fetus looks like are all critical in making the judgement call of when to offer assistance during calving.

Intervening in the calving process too soon or too late can lead to a bad outcome. Unusual disturbance or stress too early in the process can slow down contractions and delay calving. Don't jump the gun! Give the natural birth process time to run its course before intervening. By that same token, waiting too long to assist can lead to weakened or dead calves.

When to assist?

"Start your clock" at the appearance of the water bag at the beginning of Stage 2. Normally, at this point, the fetus has entered the birth canal, a portion of the water bag can be observed and the heifer/cow is usually lying down. Uterine contractions occur every couple of minutes and are accompanied by contractions of the diaphragm and abdominal muscles. Surrounded by the water bag, the calf's front feet and possibly nose are beginning to protrude from the vulva. After the nose is exposed, the dam exerts maximum straining to push the shoulders and chest through the pelvic girdle.

Once the shoulders have passed, the abdominal muscles of the calf relax and its hips and legs extend back to permit easier passage of the hip region. At this point, the water bag has ruptured and the calf is normally free of fetal membranes, because they remain attached to the cotyledons of the uterus. This ensures an oxygen supply for the calf during birth. Upon passing though the vulva, the umbilical cord breaks, respiration begins, filling the lungs with air and the lungs become functional.

Although the time intervals presented here may vary among types and breeds of cattle, and among individuals of the same breed, most recent research indicates healthy heifers, calving for the first time and with a normal presentation of the calf should calve unassisted within 60 minutes of the appearance of the water bag. Healthy cows with normal calf presentation typically calve in less than 30 minutes after the onset of Stage 2.

Deciding when to offer assistance is a judgment call and good judgement is the result of experience. Obviously when we come upon a heifer or cow with the front feet and nose of the calf showing, and water bag ruptured but don't know how long they have been trying, it can lead to anxious moments.

When cows are lying down and having contractions and no water bag or calves feet can be seen, it can be a sign of an abnormal presentation or a very large calf. When you don't know when Stage 2 started, or it is apparent no progress is being made, or all signs are normal but the timelines mentioned are expiring, you will need to conduct a vaginal exam to determine what is going on and if help is needed. — **Mark Z. Johnson, Oklahoma State University Extension beef cattle breeding specialist**

Story Shorts

Odds in favor of La Niña developing

The National Weather Service's Climate Prediction Center wrote the weather outlook suggests that La Niña conditions may develop in the next six months. Currently, the Pacific Ocean is experiencing El Niño, but there's a high probability it will transition to neutral conditions by April to June. Subsequently, there's a 55% chance of La Niña occurring by June to August. Despite El Niño persisting in the equatorial Pacific, sea surface temperatures have slightly decreased in the eastern and central Pacific. Although El Niño's effects on global weather may continue until April, historical data shows that a transition to La Niña follows many El Niño events. Therefore, the possibility of this outcome occurring this year is not unusual.

Gates buys several farms in NE

An investigation by the Flatwater Free Press revealed a company owned by Bill Gates bought several farms in Nebraska over the past several years. The investigation revealed that numerous farms, such as Willowdale Farms, Merrick County Farms and Dove Haven Ranch, were once owned by AgCoA, a farmland investment startup previously owned by the Canada Pension Plan Investment Board. In 2017, the Canadian board sold off its American farmland portfolio, including 22,830 acres in Nebraska, to Mt. Edna Farms, a company associated with billionaire Microsoft co-founder Bill Gates. Gates has become one of Nebraska's top landowners, owning approximately 20,000 acres across 19 counties, with the largest chunk in Holt County. The investigation also revealed paperwork filed by Mt. Edna Farms in 2021 showed it used a portion of Gates' land as collateral for two loans totaling $700 million.

More charcuterie products recalled

USDA's Food Safety and Inspection Service (FSIS) announced Fratelli Beretta USA Inc. is recalling an undetermined amount of ready-to-eat meat charcuterie products containing coppa that may be underprocessed, which may have resulted in possible contamination with foodborne pathogens. The coppa products included in the recall have varying best-by dates and bear the establishment numbers "EST. M47967 or M7543B" within the USDA mark of inspection or in inkjet print on the front of the packaging. They were distributed to various distributors and retail locations across the country. FSIS, in collaboration with the Centers for Disease Control and state health partners, is investigating a salmonella outbreak and found that unopened coppa products tested positive for salmonella, prompting the recall due to potential underprocessing. Consumers who have purchased these products are urged not to consume them. These products should be thrown away or returned to the place of purchase.

CO River evaporation report released

The Bureau of Reclamation released a report detailing historical natural losses along the lower Colorado River, focusing on evaporation and transpiration processes. The Mainstream Evaporation and Riparian Evapotranspiration report examines water surface evaporation, soil moisture evaporation and plant transpiration, providing data for managing regional water operations and enhancing modeling efforts. The report highlights that approximately 1.3 million acre-feet (an acre-foot is 325,851 gallons) of water is lost annually along the lower Colorado River mainstream, with around 860,000 acre-feet lost to evaporation from Lake Mead to the Mexican border. An additional 445,000 acre-feet were lost to evaporation and transpiration from natural vegetation and habitats.

SciFi Foods builds bioreactor

SciFi Foods, based in San Francisco, Ca, has announced the completion of its 500-liter bioreactor at its newly established facility in San Leandro, CA. SciFi Foods blends cultivated and plant proteins to create beef alternatives, utilizing a 90/10 blend of vegan and cell-cultured ingredients. This facility completion paves the way for the startup to pursue regulatory approval from the USDA and the Food and Drug Administration, anticipating entering the U.S. foodservice market by early next year. Joshua March, co-founder and CEO, said the company addresses scalability challenges, aiming to produce approximately 50,000 burgers annually once it receives regulatory approval.

Working Lands Climate Corps launched

USDA announced the launch of the Working Lands Climate Corps as part of President Joe Biden's American Climate Corps initiative, aiming to train the next generation of conservation and climate leaders. This program will offer young individuals technical training and career pathways, empowering them to implement climate-smart agriculture solutions nationwide. Deputy Secretary of Agriculture Xochitl Torres Small announced the initiative at the National Association of Conservation Districts annual meeting in San Diego, CA, emphasizing its potential to deliver economic benefits to farmers and ranchers while addressing climate challenges. "This program will provide a pathway to continue to build a workforce of people who understand these programs and their promise to support the delivery of billions of dollars in climate-smart agriculture funding made available through President Biden's Inflation Reduction Act, putting them on a pathway into good paying careers at the (USDA)," Small said.

Prosecutors: NE farmer's bank fraud sentence is correct

A Nebraska farmer who pled guilty to one count of bank fraud waived his rights to appeal his sentencing, including about $5.1 million in restitution, and should have his appeal denied, federal prosecutors argue in a brief filed recently in appeals court.

Gering, NE, farmer George Liakos was sentenced to 36 months in prison in late October 2023. He had faced a grand jury indictment going back to October 2021 on four counts of bank fraud and one count of making a false statement. Liakos was ordered to pay restitution to First Interstate Bank.

Following his sentencing, Liakos filed an appeal with the U.S. Court of Appeals for the 8th Circuit arguing the restitution amount set by the U.S. District Court for the District of Nebraska was inaccurate.

"Liakos waived his right to appellate review of his sentence in his plea agreement and it would not be a miscarriage of justice for this court to enforce that waiver," federal prosecutors said in a brief filed in the 8th Circuit.

"The plea agreement included a provision that Liakos was waiving his right to appeal any sentence imposed. During Liakos's change of plea hearing, Liakos was extensively advised of his agreement to waive his appeal rights with limited exceptions," prosecutors said.

"The magistrate judge repeatedly confirmed that Liakos understood his appeal rights, that he agreed to give up those appeal rights and had conferred with his attorney before agreeing to give up those rights and entering into the plea agreement."

Beginning in April 2017 and continuing through May 2019, Liakos misrepresented the number of commodities he had in storage, cattle inventory, and crop acres. In addition, Liakos concealed his debt from Great Western Bank to secure approximately $11 million in loans, according to the U.S. attorney's office in Nebraska.

In a brief filed in the 8th Circuit, Liakos alleged the district court judge erred in setting the restitution amount. He said the amount of loss and restitution should be recalculated to not "reward the bank for its misconduct in the disposition of the collateral. That amount should not be more than $1 million."

In the brief filed in early February, prosecutors disagreed with Liakos' contention.

"The district court did not err in finding that Liakos owed $5,059,035.43 in restitution and that the United States had proved such restitution by a preponderance of the evidence and in also finding that Liakos had not credibly demonstrated that he was entitled to an offset," the U.S. said in its brief.

"Lastly, even if the court were to not enforce the appeal waiver, Liakos's below-guideline sentence was not substantively unreasonable."

Liakos argued the district court "erred and/or abused its discretion" by not considering what he said was a "deficiency" in the bank's failure to consider the fair market value of Liakos' collateral.

Doing so, the brief said, would be enough to "satisfy debt" to the bank.

Liakos contends the fair market value of the real estate and improvements of his property were more likely around $11 million.

Liakos owned about 2,000 acres of farm ground, according to court records, that he claims is worth at least $8.5 million.

Great Western Bank, which was acquired by First Interstate Bank, was a banking corporation with locations in Iowa, Colorado, South Dakota and Nebraska, including a banking office in Scottsbluff, NE. Great Western Bank's deposits were insured by the Federal Deposit Insurance Corporation.

Liakos conducted a farming operation in Bayard, NE, primarily growing beans, corn and sugar beets as well as raising cattle.

To obtain money from Great Western Bank, Liakos executed loans and a security agreement with the bank on June 2, 2017. The loans and security agreement consisted of a revolving line of credit, a machinery and equipment loan and a livestock loan.

In approving the loans and security agreement, Great Western Bank relied on information from Liakos reflecting current commodity and livestock inventory, accounts receivable, loans and accounts payable that he knew "materially overstated his commodity inventory and materially understated and failed to report loans and accounts payable," according to the U.S. attorney.

As a result of Liakos's scheme, Great Western Bank sustained a $3.9 million loss.

— Todd Neeley, DTN staff reporter

Circular food systems buoy WA agriculture

In agriculture, land and water degradation is a real concern. Also of concern is lack of access to locally produced, high-quality foods, either because they are unaffordable or because they are destined for other markets.

Washington State University (WSU) Extension's Marcia Ostrom is working to address those problems. As Food Systems Program director, she leads WSU Extension's efforts to develop regionally interconnected food systems across the state. A particular focus of hers is ensuring that the benefits of Washington's bountiful food systems are more accessible and equitable.

"The term 'circular food system' describes a way to source food that is protective of our land, water, people, and ecosystems while reinvigorating local economies," she said.

Washington is an agricultural powerhouse, but its highest value crops are produced for national and global export markets. Major disruptions to global trade often result in supply chain and market vulnerabilities for both farmers and consumers.

Ostrom and fellow Extension educators support the regional farmers who harvest and produce the quality vegetables, fruits, meats and dairy products that many local residents are demanding through programs like Cultivating Success and Farm Walks. These types of programs create opportunities for farmers to innovate ways to build more secure and profitable markets.

"We're working toward closing the food system loop as tight as we can," Ostrom said. "That means local farmers taking care of fragile ecosystems, creating food supply chains that minimize waste, improving the availability of healthy regional foods, and supporting the livelihoods of many, many Washington farmers."

To combat food insecurity and food waste, communities across northwest Washington pooled their resources to open a community processing kitchen in Clallam County.

The new kitchen, a partnership between the Port Angeles Food Bank and WSU Clallam County Extension, is a success story of sharing resources with multiple counties and partners while closing the food system loop.

"So many different outcomes are now tied to this kitchen," said Clea Rome, director of Clallam County Extension. "Our farm-to-school program just launched, several school gardens are being established, and we've secured multiple grants and contracts to purchase food from local farmers."

Locally grown food and imperfect or donated goods and produce are transformed by the kitchen into fresh, convenient, ready-to-go meals for food bank clients, and soon, local schools and hospitals.

"The work we do in food systems not only helps keep our small family farms viable, but couple that with the idea that this food is now going to the most food insecure people in our area," Rome said. "To me, that's really gratifying."

— WSU Extension

‘Chaos in the marketplace’ over CA’s Prop 12

Agriculture Secretary Tom Vilsack told Congress on Feb. 14 that agricultural producers are going to face “chaos in the marketplace” if Congress doesn’t address the impact of the U.S. Supreme Court ruling over California’s Proposition 12 in 2022.

There also could be trade ramifications from Canadians as the rules from California’s proposition begin to affect how pigs are raised by Canadian farmers who then ship those pigs to U.S. finishing farms.

The secretary has increasingly become more vocal over the impacts of California’s law, which was upheld by the U.S. Supreme Court last May. The court’s ruling right now appears to grant the ability of states to dictate farm production practices to farmers outside their state borders and ignore federal food-safety standards.

Vilsack had another marathon hearing before the House Agriculture Committee on Wednesday, testifying on an array of topics and the tone between the secretary and lawmakers also ranging from friendly to hostile.

Rep. Glenn “GT” Thompson (R-PA-15), chairman of the committee, asked Vilsack about the economic harm of Proposition 12 going into effect, pointing to a USDA study showing prices for certain pork products have risen as much as 41%.

Vilsack pointed out that “chaos” can be created when each state had the ability to define for itself what farming techniques or practices are appropriate.

“I’m not sure that this Congress is going to be able to pass legislation, but in due respect, I would suggest that if we don’t take this seriously, we’re going to have chaos in the marketplace. That’s because there’s nothing preventing any state from doing what California did.”

Proposition 12 makes it a criminal offense and civil violation to sell whole pork meat in California unless the pig it comes from is born to a sow that was housed within 24 square feet of space and in conditions that allow the sow to turn around without touching an enclosure. Proposition 12 applies to any uncooked pork sold in the state, regardless of whether it was raised in California.

Yet, California also is 12% to 15% of the national pork market. Beyond California, the state of Massachusetts also has its own law on animal pen size. The Massachusetts law is being challenged after a federal court recently overturned an exemption in the Massachusetts law for pork products that come from federally licensed facilities within the state.

Vilsack acknowledged the difficulty now trying to create some consistency in rules. The problem, he added, is that applying national standards on food leads to considering national standards for other thorny social issues such as guns and abortion. “So, I don’t envy the Congress in trying to figure this out. I will tell you, though, that if it doesn’t figure it out, there’s going to be chaos.”

Thompson said producers who were prepared to go into the California market with its tighter standards aren’t finding the volume of expected sales. Those producers instead are shipping products to other states and disrupting the market for other smaller pork producers in the process. “So, there are a lot of implications.”

Rep. Randy Feenstra (R-IA-04) said he was recently at an event with Iowa pork producers. He asked Vilsack about how Proposition 12 affects imports from Canada.

“It’s been raised in our conversations with the Canadian minister,” Vilsack said. “They want to have some clarity and some indication of how we are responding to all of this.”

With pork producers facing tighter margins, Vilsack said USDA has recently spent $100 million buying pork for its various feeding programs such as school lunches.

“I think we’re going to go through a bumpy period here of whether farmers are going to participate in that market or whether they are going to localize,” the secretary added.

While Vilsack advocated for Congress to change the law, more than 180 House members last fall joined a letter opposing a bill that would nullify Proposition 12. — **Chris Clayton, DTN ag policy editor**

How music can change chocolate perception

Food scientists are learning how music can influence our perceptions of foods like chocolate, noticing that some sounds are in harmony with sweetness while others bring out our sense of the bitter.

Washington State University (WSU) food scientist Carolyn Ross works with volunteer tasters and listeners to understand for how music affects our perceptions. In February, she led a taste panel at WSU’s Sensory Evaluation Lab, pairing bites of chocolate with short tracks of classical music in an experiment that feasted the senses.

“I’m always interested in cross-modal perception: how taste, smell, texture, and sound affect not just whether you like a food, but how you perceive it,” Ross said.

From the crisp snap of that first bite, to the meltability in your mouth, to the mix of sweet and bitter flavors, chocolate is a sensory experience. Containing theobromine, phenylethylamine and tryptophan—stimulants or building blocks of feel-good hormones like serotonin—chocolate is one of the most popular foods in the world. Annually, Americans consume nearly 3 billion pounds of the confection.

Ross’ chocolate panel is built on the work of European researchers who found that music influences how we perceive creaminess, bitterness and sweetness. In 2020, a WSU panel examined how chocolate eaters responded to abstract “smooth” and “rough” sounds. For 2024, Ross turned to classical music, combining tracks of Vivaldi and Pachelbel with a variety of rich chocolate truffles.

“Sounds in the background can affect your sense of a food,” Ross said. “The music could change, and now you’re perceiving a dessert as sweeter, a chocolate as milkier. You’re changing what the eater is perceiving.”

While the nature of the experiment was not given away beforehand, panel participants noticed the juxtaposition of sound and chocolate enjoyment.

“The classic wedding song”—Pachelbel’s “Canon in D”—“involved happy thoughts,” said taster Joelle Edward. “I do think it influenced me.”

The experience also opened further possibilities of pairing music and foods.

“I’ve never taken the time to ‘set the mood,’ as it were,” said taster Susan Williams. “It made me stop and appreciate things, and really reflect on the flavors. There are ways you can do that in your daily life.”

Information from the panel will help Ross get a better understanding of the sensory experience of enjoying foods. Someday, such data could assist candy makers with marketing or let party planners present the perfect chocolate tasting, complete with soundtrack.

Ross also ponders the potential influence of more contemporary music.

“What about music you would hear in a restaurant or on a date?” she asked. “Which Taylor Swift album would go best with chocolate?” — **WSU Extension**

SALE REPORTS

DURBIN CREEK RANCH BULL SALE
Feb. 7, Worland, WY
101 Bulls $6,218
302 Commercial open heifers. 1,772
2 Horses 8,500
Auctioneer: Joe Goggins

TOPS—Bulls: DCR SRH 128D Resolute 2276 ET, 4/4/22 by Hills-Galore 44Z Resolute 128D; to A2 Cattle Company, Worland, WY, $15,000. DCR SRH 128D Resolute 2336 ET, 4/9/22 by Hills-Galore 44Z Resolute 128D; to Rausch Herefords, Hoven, SD, $15,000. DCR 8200 Dependable 2043, 3/15/22 by DCR 376 Dependable 8200; to Armstrong Ranch, Lander, WY, $14,500. DCR 8200 Dependable 2071, 3/21/22 by DCR 376 Dependable 8200; to Uttecht Farms LLC, Woonsocket, SD, $10,000. DCR 199B Cowboss 2273, 4/5/22 by NJW 78P 88X Cowboss 199B ET; to Ballek Land and Livestock, Clearmont, WY, $9,500. DCR HD 9217 Ambition 2478, 4/29/22 by 74LC CVL DCR Ambition 9217 ET; to Don MacLennan, Byers, CO, $9,250. **Horse:** DCR Frosty Cash, 2015 Buckskin mare by Gila Drift; to Diamond S Ranch, Hyattville, WY, $10,500. —**DEVIN MURNIN**

LASSLE RANCH SIMMENTAL BULL SALE
Feb. 8, Glendive, MT
106 Bulls $7,108
Auctioneer: Roger Jacobs

TOPS: LRS 8021L, 3/7/23 by DB Iconic G95; to Cow Camp Ranch, Lost Springs, KS, $13,000. LRS 9158L, 3/29/23 by LRS Fastball 014J; to Tom Tuhy, Killdeer, ND, $13,000. LRS 351L, 3/9/23 by American Proud H0301; to Dirk O'Conner, Plevna, MT, $12,000. LRS 637L, 3/14/23 by CCR Pounder 2045F; to Tom Tuhy, Killdeer, ND, $11,000. Three other bulls sold for $10,500 each. — **DEVIN MURNIN**

POWDER RIVER ANGUS BULL SALE
Feb. 9, Buffalo, WY
117 Bulls $7,305
Auctioneer: Mark McNamee

TOPS: PRA Basquo 33, 2/28/23 by PRA Bulldogger 1197; to James and Diane Hall, Gillette, WY, $13,000. PRA Testament 371, 1/23/23 by Tehama Testament; to V Bar F Cattle Co. Inc, Buffalo, WY, $12,500. PRA Testament 3170, 2/26/23 by Tehama Testament; to Kady Cattle Co., Powderville, WY, $12,250. PRA Scotch 3220, 3/1/23 by U-2 Coalition 206C; to Bert Palm, Medicine Bow, WY, $11,750. PRA Justice 324, 1/18/23 by RL Justice; to EB Ranch, Broadus, MT, $11,500. PRA Dutch 310, 1/17/23 by SAV Rainfall 6846; to Burt Palm, Medicine Bow, WY, $11,500. PRA Atlantis 3244, 3/3/23 by Square B Atlantis 8060; to Caleb and Catrina Schlautman, Gillette, WY, $11,500. — **DEVIN MURNIN**

SKYLINE ANGUS BULL SALE
Feb. 12, Stevensville, MT
56 Yearling bulls . $5,348
38 Commercial open heifers 1,975
Auctioneer: Joe Goggins

TOPS: Skyline Resolve 321, 2/14/23 by Coleman Resolve 7219; to Joe Bohlander, Hamilton, MT, $10,250. Skyline Resolve 307, 2/4/23 by Coleman Resolve 7219; to White Ridge Angus, Somerville, VA, and C Squared Cattle Co., Culpeper, VA, $9,750. Skyline Resource 365, 2/19/23 by Coleman Resource 003; to Ox Bow Angus Ranch, Wolf Creek, MT, $8,500. Skyline Rock 367, 2/25/23 by Coleman Rock 7200; to Dave Hannis, Hooper, WA, $8,500. Skyline Grand Canyon 3019, 3/10/23 by SAV Grand Canyon 0969; to Mikkelsen Ranch, Hobson, MT, $8,000. — **DEVIN MURNIN**

BOOTH'S CHERRY CREEK BULL SALE
Feb. 8, Veteran, WY
124 Older bulls $6,175

TOPS: Cherry Crk Incentive K124 M, 8/29/22 by SITZ Incentive 704H; to Kody McClun, WY, $23,000. Cherry Crk Incentive K207 M, 9/3/22 by SITZ Incentive 704H; to Chundy Land & Cattle, NE, $18,000. Cherry Crk Blue Collar K33 S, 8/19/22 by Cherry Crk Blue Collar G275; to Cobb Cattle Co., WY, $14,500. Cherry Crk Blue Collar K35 S, 8/19/22 by Cherry Crk Blue Collar G275; to JS Rankin Ranch, WY, $14,500. — **TY GROSHANS**

MODOC BULL SALE
Feb 9, Alturas, CA
39 Angus bulls . . . $6,301
6 Hereford bulls . . . 4,875
3 SimAngus bulls . 5,583
Auctioneer: Eric Duarte

TOPS: KD Hometown 2341, 9/23/22 by GAR Home Town; to Dolby Ranches, Alturas, CA, $10,000. KD Memphis 2389, 10/30/22 by KD Cache 2184; to Louis Scatena Ranch, Yerington, NV, $8,500. KD Greater Good 2358, 9/26/22 by GAR Greater Good; to Ackley Ranch, Dry Lake, OR, $8,000. KD Bankroll 2314, 9/19/22 by Deer Valley Growth Fund; to Parks Ranch, Adin, CA, $7,500. KD Hutchinson 2368, 10/2/22 by GAR Kansas; to Parks Ranch, Adin, CA, $7,500. **— LOGAN IPSEN for JARED PATTERSON**

BURGESS ANGUS RANCH BULL SALE
Feb. 9, Homedale, ID
16 Older Angus bulls $6,125
20 Yearling Angus bulls 5,417
2 Yearling Red Angus bulls . . 5,000
Auctioneer: Kyle Colyer
— JARED PATTERSON

DUTCH FLAT ANGUS & CX RANCH BULL SALE
Feb. 9, Lewiston, ID
10 SimAngus bulls $6,730
27 Angus bulls 6,316
20 Hereford bulls . 5,540
34 Angus females 2,285
6 Hereford females 2,067
Auctioneer: Butch Booker
Sale Manager: M3 Marketing

TOPS: Dutch Flat Stellar K226, 9/13/22 by Sitz Stellar 726D; to Corey Brown, Lenore, ID, $10,000. Dutch Flat Bolder K221, 9/16/22 by CCR Boulder 1339A; to Klavna Ranches, Pomeroy, WA, $9,250. CX 0245 Advance 2254, 10/24/22 by H5 0945 Domino 0245 1ET; to ID Buyer, $9,000. Dutch Flat Patriarch K215, 9/12/22 by Tehama Patriarch F028; to Dixon Land & Livestock, Pomeroy, WA, $8,800. — **JARED PATTERSON**

EZ ANGUS RANCH BULL SALE
Feb. 10, Madras, OR
53 Angus bulls . . . $5,956
Auctioneer: Jake Parnell
Sale Manager: Parnell Dickinson

TOPS: EZAR Grenade 2320, 8/1/22 by EXAR Grenade 9152B; to U2 Angus Ranch, Rohnert Park, CA, $10,000. EZAR Doc Ryan 2389, 8/16/22 by T/D Doc Ryan 049; to U2 Angus Ranch, Rohnert Park, CA, $9,000. EZAR Guru 2417, 9/2/22 by EXAR Guru 9718B; to Sugar Grass LLC, Corning, CA, $8,750. **— JARED PATTERSON**

Devin Murnin
Skyline Angus' first annual bull sale at the ranch in Stevensville, MT.

AMERICAN SHEEP INDUSTRY FEATURED SECTION

ASI hosts Annual Convention in Denver

The first hour of the Lamb Council meeting at the 2024 American Sheep Industry Association (ASI) Annual Convention Jan. 10-13 in Denver, CO, drew a larger-than-average crowd as representatives from Watts and Associates conducted the final listening session on creating a new federal risk management program for the sheep industry.

As was the case with previous listening sessions, some producers arrived expecting to hear the details of a product that will essentially replace the previous Livestock Risk Protection (LRP) Lamb program. But a replacement program doesn't currently exist. The sessions were designed to give producers a voice in developing a program that might be developed down the road.

"This is just a feasibility study," said Mark Boyd of Watts and Associates, which conducted three listening sessions in-person and one online. "We'll submit a report to the (USDA's) Risk Management Agency (RMA) in the next month."

Boyd said the listening sessions looked to determine what insurance products would be most beneficial to the American sheep industry, including the possibility of covering such things as mortality, yield, price, revenue, etc.

The main deficiency of the previous lamb insurance program was the lack of price reporting due to consolidation within the industry. That problem still exists more than two years after LRP-Lamb went away for good, and the issue will have to be addressed in some form if a new insurance product is to be made available in the future. The decision on whether or not to move forward will soon be in the hands of RMA.

The opening session of the convention hosted a farm bill panel which featured senior staff from the Agriculture Committees of the U.S. Senate and House of Representatives. Justin Benavidez with Chairman G.T. Thompson's (PA-15) staff and Trey Forsyth with Ranking Member John Boozman's (R-AR) team provided a comprehensive overview of the upcoming farm bill with respect to funding and the current legislative calendar, as well touching on key priorities important to the sheep and livestock industry.

In other news from the convention, ASI President Brad Boner of Wyoming and ASI Executive Director Peter Orwick addressed the ongoing issue of lamb imports—an issue Orwick said has plagued the American sheep industry since the loss of the National Wool Act in the 1990s that led to a dramatic decrease in the American flock. ASI investigated all aspects of filing a trade case against imports from Australia and New Zealand, but legal experts advised that even a victory would provide minimal relief when factoring in estimated legal costs of more than $1 million.

"Two things I think we need to do, not be shy about telling them we have a lawyer on retainer and we're going to continue to watch this like a hawk," Boner said. "And continue to make sure that if they ever stub their toe and give us a window, we'll be ready."

On the wool side, the ASI Board of Directors heard from a panel of innovators, including David Fisher of Texas, John Helle of Montana and Bob Padula of Minnesota. Fisher and Helle discussed the challenges with creating their own lines of wool textile products, while Padula walked producers through the process of establishing a partnership with WeatherWool.

Isak Statt from BKB provided a comprehensive global wool update at the Wool Roundtable. Additionally, innovators Albert Wilde of Wilde Valley Farms (specializing in wool fertilizer pellets) and Marie Hoff of Full Circle Wool (introducing wool sponges) shared exciting new product ideas.

The event also featured a presentation from Jake Vuillemin of USDA's Farm Service Agency about the available wool Marketing Assistance Loans and Loan Deficiency Payments program that has been used by many growers during the last three years. Mike Conover of Fibershed and Linda Poole with the National Center for Appropriate Technology discussed the Climate Beneficial Fiber Partnership that received a $30 million USDA grant in 2023. Other topics included carbon credits and an overview of the domestic textile industry.

Three new representatives were elected to the ASI Executive Board during the Saturday morning regional caucuses at the convention. Laurie Hubbard (Region I), Anne Crider (Region 3) and Tammy Fisher (Region V) were not eligible for reelection after serving two terms on the executive board.

Those open spots were filled by Kevin Melvin of New Jersey, Larry Hopkins of Indiana and Rodney Kott of Texas, respectively. John Noh of Idaho was reelected in Region VII, as were each of ASI's officer team: Boner as president, Ben Lehfeldt of Montana as vice president and Joe Pozzi of California.

The 2024 ASI Annual Convention offered two industry tours that gave participants the opportunity to see lamb harvesting plants and feedlots up close. The first included stops at the Superior Farms plant in Denver, CO, and Harper Feeders in Eaton, CO. Participants on that tour also learned how each facility has used ASI's Secure Sheep and Wool Supply Plan to prepare for a possible disease outbreak. The second tour headed to Brush, CO, to see the industry's newest lamb plant owned by Colorado Lamb Processors. After a tour of the facility, participants headed to Spence Rule's nearby feedlot, where they were treated to an outstanding lamb lunch.

Speaking of Superior Farms, convention attendees got an update on a city referendum headed for the 2024 fall ballot that would ban meat processing facilities within the Denver city limits. The Superior Farms facility is the only business that would be affected if the referendum passes.

"They're coming after the protein industry," said Superior Farms CEO Rick Stott. "We're going to take them on, and we're going to beat them."

ASI's Board of Directors voted to commit significant financial support to those efforts, but the company will need additional dollars to mount an effective campaign between now and November. Producers interested in supporting those efforts should visit StoptheBanProtectJobs.com to learn more.

Look for additional coverage of the ASI Annual Convention in the February issue of the Sheep Industry News. And mark your calendars now to attend the next ASI Annual Convention on Jan. 15-18, 2025, in Scottsdale, AZ. — **ASI**

AMERICAN SHEEP INDUSTRY FEATURED SECTION

Sheep, lamb slaughter likely to decrease in 2024

SHEEP
(from page 1)

NASS reported breeding sheep numbers stood at 3.67 million head, marking a 2% decrease from the 3.74 million head recorded in 2023. Ewes aged 1 year and older totaled 2.87 million head, also showing a 2% decline from the previous year.

Cozzens said the lambing percentage stood out in the report as it was 103.4% compared to 104.6% last year and the five-year average of 106.7%. Cozzens attributed the decline in lambing percentage to a 32,000 head decrease in ewes 1 year and older. The lower breeding flock contributed to the 2.2% decrease in the lamb crop to just over 3 million head.

NASS also reported market sheep and lambs were numbered at 1.36 million head, a similar 2% decrease, with market lambs representing 94% of the total market inventory and market sheep comprising the remaining 6%.

The Jan. 1, 2023, lamb crop was revised 11,000 head lower to 3.099 million head, down 1.9% from the 2022 lamb crop.

Opportunity

Cozzens said LMIC expects sheep and lamb slaughter to be 1-2% lower in 2024 due to the 1.9% decline in all sheep and lamb inventory and the 2.2% decline in the lamb crop.

Based on decreased production numbers, economists from Oklahoma State University and Texas A&M University noted that prices for sheep will have an opportunity to climb in 2024.

David Anderson, professor and Extension economist at Texas A&M AgriLife Extension, told *WLJ* prices will be higher in 2024 based on less domestic production, low amounts in cold storage and limited imports through most of 2023.

Anderson cautioned that the wide price gap between U.S. and Australian legs will likely encourage imports, but he noted a recent surge in U.S. lamb production.

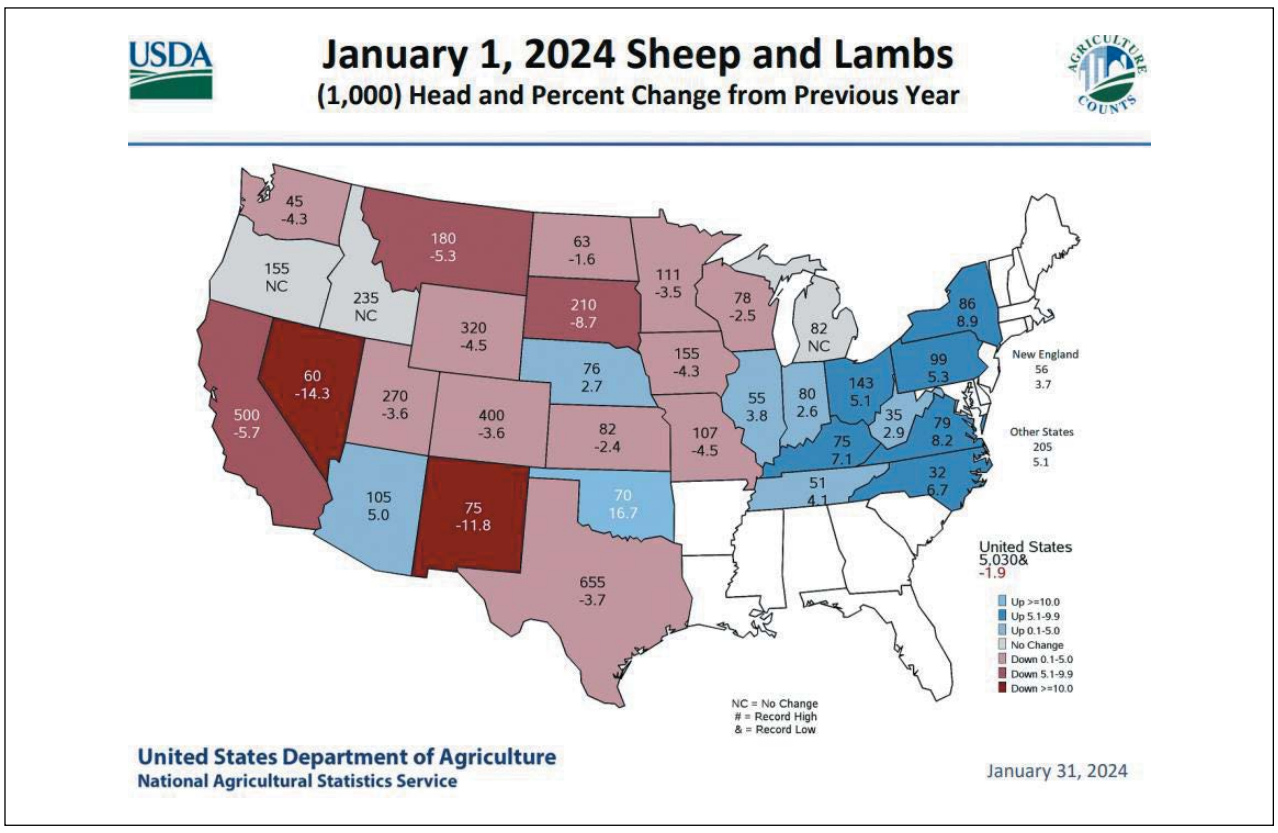
> *"We have the opportunity to rebuild our U.S. numbers to compete against imported lamb and match demand."*
>
> *— Travis Hoffman*

Shorn wool production saw a 2% decline, totaling 22.7 million pounds in 2023. The average price per pound for sold wool stood at $1.56/pound, resulting in a cumulative value of $35.3 million. California and Wyoming jointly led in wool production, each contributing 2.3 million lbs., followed closely by Colorado at 2.28 million lbs. Utah and Idaho were the next in production numbers, with 2.2 million lbs. and 1.51 million lbs., respectively, highlighting the distribution of wool production across key states.

Death losses declined during 2023 by 4%, or 200,000 head, for sheep, and 3% lower for lambs to 365,000 head. Colorado and Montana were among the few states to experience an increase in loss, with 16,000 head lost each.

It is worth noting that NASS revised the Jan. 1, 2023, inventory after reviewing slaughter, import and export data, and new survey information. NASS reported that the total 2022 sheep and lamb inventory was revised up 110,000 head to 5.13 million head.

According to Cozzens, the upward revision resulted in all sheep and lamb inventory as of Jan. 1, 2023, to increase 1.3% from 2022.



AMERICAN SHEEP INDUSTRY FEATURED SECTION

MT man charged for illegally breeding, trafficking hybrid Asian sheep

A Vaughn, MT, man was charged with federal conspiracy and trafficking for illegally cloning, breeding and selling large-horned sheep native to Asia, their hybrid offspring, and DNA to game farms and livestock breeders in other states.

Arthur "Jack" Schubarth was charged in federal court in Great Falls, MT, on Feb. 12 after entering into a plea agreement with the U.S. government in which he will plead guilty to one count of conspiracy and one count of trafficking in violation of the Lacey Act. The act prohibits people from selling, transporting or buying any wildlife through interstate commerce when the person knew it was being transported or sold in violation of federal law or regulations.

The scheme ran from January 2013 through at least October 2022 and involved Marco Polo argali sheep, which are the largest of any wild sheep, weighing more than 300 pounds, and have the largest horns of any wild sheep, according to the court documents. They are native to the high elevations of the Pamir Mountains region that includes Kyrgyzstan, Tajikistan, Afghanistan, Pakistan and China.

The animals are listed as a threatened species under the Endangered Species Act in the U.S. and an Appendix II animal under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

That means that the export and import of the animals and their body parts is tightly regulated and requires permits, as the CITES classification for the animal means that it could become extinct if trade of the species is not regulated. The animal is also prohibited in Montana under state law. But they are still trophy hunted in places like Tajikistan, Mongolia and Kyrgyzstan despite their protected status because of their prized horns.

The court will still have to accept the plea agreement, but under it, Schubarth agreed to pay a fine to the National Fish and Wildlife Foundation, to cooperate fully with the government's investigation, and to quarantine any foreign or hybrid animals he still owns so the U.S. Fish and Wildlife Service can inspect and possibly neuter them.

In exchange, the government will recommend a sentence at the lower end of the sentencing guidelines.

According to the court records, Schubarth owns a 215-acre ranch on the Fairfield Bench in Vaughn that was the central point for the breeding and transactions, which involved five other people in Montana, Texas and Minnesota who are identified only as "Person A" through "Person E" in the criminal information.

In January 2013, Schubarth got ahold of a part of a male Marco Polo argali sheep that was killed in Kyrgyzstan and illegally imported into the U.S. and came to an agreement with an unnamed third party that would store the parts. Two years later, he signed a contract to have the sheep cloned and put a deposit down of $4,200, according to court records.

In November 2016, Schubarth received 165 cloned embryos of the sheep, and six months later, a male sheep was born from one of those embryos that Schubarth called "Montana Mountain King."

The next year, Schubarth started harvesting semen from Montana Mountain King to artificially inseminate other ewes to create hybrid sheep, and also started shipping dozens of straws of the semen to a person in Texas.

That same year, "Person C" brought 26 illegal sheep to Schubarth's ranch to be inseminated, paying Schubarth at least $600 before taking 15 of the sheep back to Minnesota.

Over the next couple of years, the person in Minnesota brought more sheep to be inseminated, while Schubarth added more clients in Texas to ship the straws to and started working with them on larger deals.

In 2020, he agreed to sell one of Montana Mountain King's sons and 11 sheep that had one-quarter of his genetics for $23,000 to two people in Texas, and one of them got a false export license to send 43 illegal sheep to Schubarth and bring back 12 more of the Marco Polo hybrids, according to the criminal information.

The documents say other falsified export records were obtained in Montana for further sales of the hybrid offspring in Texas and Minnesota over the next two years. The animals were listed falsely as New Mexico Dall sheep, New Mexico "domestic" sheep, and "Bighorn x" sheep.

And the criminal information says the people involved knew what they were doing was illegal. In online communications, Schubarth was found to have discussed with one of the Texas buyers a name for the hybrid sheep they were creating. One of the Texans said that they knew they could not call it a "Black Argali."

Online records show Schubarth has been involved in game farming in Montana since at least the 1990s, when he testified on bills about the operations and spoke to a University of Montana researcher.

He also posted about selling "hybrid Rocky Mountain ewes" on several online forums, including lambs for more than $2,000. The plea agreement says the fair market value for everything Schubarth exchanged with the other buyers and sellers was worth between $250,000 and $550,000.

Further court dates have not been set in the case as of Feb. 14. Should the court accept the plea agreement, the government stipulated that it will recommend a lower sentence for Schubarth so long as he fully cooperates with the agreement. — **Blair Miller, Daily Montanan**

Workshop for lamb consumers, producers

University of Missouri (MU) Extension in St. Clair County will hold an American Lamb Consumer and Producer Workshop 3-7 p.m. Feb. 29, in Osceola, MO.

"The purpose of this workshop is to connect local sheep producers with potential consumers, thereby increasing lamb meat demand," said MU Extension livestock field specialist David Brown.

"According to a recent survey, only half of the U.S. population has tried eating lamb," Brown said. "Ironically, many sheep producers have never eaten the mouthwatering meat from the lambs they raise. The focus of this workshop is to bridge the gap between producers who are looking for ways to boost their production and adventurous consumers seeking to diversify their home cooking cuisine."

Brown added, "This synergy will increase local sheep production and create more profit margin for the producers."

Topics and speakers

• Sheep Farming Profitability, Linda Coffey, livestock specialist, National Center for Appropriate Technology.

• Sheep Market Outlook, Jennifer Lutes, MU Extension agricultural business specialist.

• Why You Should Eat Lamb, David Brown, MU Extension livestock specialist.

• Lamb Cut Demo, MU Value-Added Meat Team.

Special guest: Lou Rice, chef with 35 years professional culinary and hospitality experience and the author of "Ozarks Cooking" and the "Best of Chef Lou."

Cost is $10 for adults and $5 for students. Fee includes lamb burger dinner plus free lamb recipe books. The event will be at the Osceola First Baptist Church.

Register at tinyurl.com/bdr2ej24. The number of registrants is limited to 40.

For more information, contact MU Extension in St. Clair County at 417-646-2419 or David Brown at davidbrown@missouri.edu.

American lamb is meat purchased with grants provided by Missouri Sheep Merchandising Council. — **MU Extension**

MFU talks international trade impacts

Montana Farmers Union (MFU) members, farmers and ranchers, met with Assistant Secretary of State for Global Public Affairs Bill Russo in January, relaying the impacts, priorities, and concerns that family farmers have in the foreign policy realm with Russo.

Members in attendance discussed the importance of rebuilding our trade relations following the disruptions caused by trade wars, opportunities and pathways for U.S. wheat into Canada, mandatory country-of-origin labeling (MCOOL), food security and national security, immigration reform for ag labor, and concerns with foreign and corporate consolidation and ownership of our food and ag supply chain.

Russo was keenly interested in global trade relations and how family farmers are currently impacted. MFU urged that the U.S. work to rebuild trade relations with our customers, following a three-year trade war from the previous administration, that did little other than disrupt markets.

MFU Board member Erik Somerfeld explained the impact: "On the wheat end, and the barley end, we didn't lose our share of the market because of our quality, but it caused a drastic cut in what we were getting paid because of the tariffs that were going on.

"Anything we can do, to not make food a weapon, or the unintended victim in these trade disruptions is critically important. It's a huge chunk of money that disappears out of the state," Somerfeld said.

Russo asked for insight on market access that producers in the U.S. have been looking toward but have not had success. Access to Canadian markets for wheat is something the State Department should have on their radar, many of the producers in the room agreed. MFU continues to urge the administration to explore the creation of a pathway for U.S. wheat to be traded into Canada.

Many producers noted that while feed grade grain is accepted, Canada won't recognize Montana and U.S. varieties for milling, leaving farmers in the northern tier of the U.S. at a competitive disadvantage. American wheat faces trade barriers and restrictions in the Canadian grading system, but Canadian wheat can enter the U.S. supply chain whenever it's advantageous for them.

Following the discussion of global market access, Russo noted this concern, and said that the State Department is working on empowering the U.S.' economic officers all around the world with the tools and knowledge they need to be better advocates for market access for U.S. industries.

Russo discussed with producers the concerns and challenges around labeling and standards in countries that don't offer the best and try to get away with it anyways. Russo noted that in their international work they strive to raise standards.

The producers in the meeting highlighted the importance of MCOOL for beef, saying consumers should be able to make the choice of what beef they purchase, whether it's from the U.S. or elsewhere. COOL helps producers differentiate their products.

MFU member, producer and National Farmers Organizations Vice President Bruce Shultz told the secretary that when the U.S. had mandatory COOL, American ranchers received some of the highest prices ever for cattle, until Congress repealed MCOOL in 2015. Producers further emphasized the need for consumers to have truth in labeling.

"The USDA (inspection) label is important, but a lot of people think that means American product—but that's not necessarily the case," Shultz said.

The concerns over control that the large, multinational packing corporations, such as JBS, have was discussed as their monopoly control of the market also impacts food security, noted Shultz. The challenges that American producers are facing with the consolidation of the meat packing industry also creates vulnerability for food security, as exemplified during the COVID-19 pandemic.

Herd security concerns regarding disease, such as a risk of bovine spongiform encephalopathy (BSE) and foot-and-mouth disease in the U.S. from foreign imports, was discussed by producers. Shultz noted that Brazil had not complied with laws regarding the timeline reporting requirement of a recent BSE case, and he had concerns about the larger impact such failures could have on American beef and ranchers, as well as potential negative impact on consumer confidence of beef.

MFU also relayed their appreciation to Russo regarding the Biden administration's directive that all beef, pork, lamb and bison products (red meats) purchased by USDA, must be born, raised and processed in the U.S. This not only gives producers more market opportunity, but ensures that most students, and all who consume this meat, including USDA Agricultural Marketing Service's procurement for nutrition programs, will be eating a product that was born, raised, and processed in the U.S.

With the discussion of inspection and labeling top of mind, MFU member John Wicks discussed his concerns with Russo about the need to ensure accurate inspection of imports that claim to be organic. Wicks noted that to support American organic producers, they need a market that's fair and not flooded with fraudulently organic-labeled grains, with a misleading stamp of USDA organic. Shultz added that having enough inspectors for all imports to ensure accurate truth in labeling is paramount.

Russo reiterated that a north star of the work they are doing in the international space as the State Department is the idea of raising standards. "Any country, like ours, that has immense pride in what we produce, should want to have others rise up to meet us, rather than a race to the bottom." Russo said.

Russo also talked about the State Department's—and broader administration's—focus on supply chains and, more specifically, semi-conductors due to the high impact and potential damage that disruption of that supply chain can have. Producers relayed how modern equipment is dependent on these chips, but also that prices have been impacted by the lack of semi-conductors. It was clearly relayed that more semi-conductor production in the U.S. would be beneficial.

Producers in attendance also conveyed that domestic production of crop inputs, like fertilizer, would be ideal as well.

MFU also commended the Biden administration's work emphasizing buying American, and the support and work to bring back the production of chips and semiconductors in the U.S., which not only supports the American economy, good jobs, and reduces the outsourcing of critical materials, but is also important for national security.

Russo noted that the supply chain around semi-conductors and chips impact all Americans, whether it's cellphones or dishwashers, it's an issue where people are realizing how a supply chain disruption or global conflict, has a direct impact on their lives.

Immigration reform in the vein of agricultural labor and the need for a streamlined legal pathway was also discussed in the meeting, as foreign agricultural labor and laborers who are in the U.S. through programs like H2A have become critical infrastructure in the daily operation of many family farms and ranches.

MFU relayed that this is an economical issue for family farmers and ranchers, not political. For foreign agricultural labor, it's a difficult process and expensive for family farmers, but has become an essential thread in holding many operations together, and it's important that the State Department has this top of mind.

MFU is grateful to Russo for dedicating the time to learn about the issues and global policies that impact the daily lives of Montana family farmers and ranchers. — **Montana Farmers Union**

Retallick-Riley talks bovine congestive heart failure

Cattle feeders who lose livestock to bovine congestive heart failure (BCHF) know the impact of the disease firsthand. Ready to hear about the latest research on BCHF, feeders and others industry professionals attended a Cattlemen's College session presented by Kelli Retallick-Riley, president of Angus Genetics Inc. (AGI).

The session took place Feb. 1 at the 2024 National Cattlemen's Beef Association's annual convention and trade show in Orlando, FL.

While not a veterinarian, Retallick-Riley excels in the field of quantitative genetics and is interested in finding ways to combat BCHF from a genetic perspective. She said research, so far, shows heart health (based on heart scores) is heritable, giving her and her team hope that genetic tools can be developed to reduce risk of the disease in cattle.

Retallick-Riley said she also knows there are other elements outside of genetics, like management practices and the health of other organs, to be considered.

"Because of its low incidence rate, only evaluating cattle dying from the disease is too limiting," she said.

Recent research has focused on identifying animals more prone to BCHF. At the same time, the frequency of the disease has been increasing. She said this increase could mean either there really are more cases of BCHF occurring, the industry is getting better at diagnosing it, or a combination of the two factors. Ultimately, the direct cause or causes of BCHF are not yet understood.

Besides the obvious loss of life, what is particularly painful about BCHF is the cattle dying of it inflict a larger economic impact than those lost at earlier stages in life. According to the feedlot studies referenced by Retallick-Riley, affected cattle were dying of BCHF at an average of 110 days on feed with individual deaths taking place at points across a large swath of the feeding phase.

She shared a few other known pieces to the disease's puzzle, including a connection to respiratory health.

"When animals were culled and treated for [acute interstitial pneumonia (AIP)], they had a higher probability or a higher rate of succumbing to bovine congestive heart failure," she said.

Researchers have also studied cattle in the complex disease category, meaning they have been treated for at least one other disease. Retallick-Riley said of these cattle, "they also had a higher probability or a higher rate of being called a heart disease death."

Without complete information on animals' health, it is difficult to know if some of these were misdiagnosed and treated for AIP or complex disease without any advantage.

When looking at beef-type cattle, beef-on-dairy type, versus dairy-type cattle and their crosses, she said there are similar ratios for instance of disease. Across the board, she and research partners are seeing high to modest genetic correlations between heart scores and performance traits including hot carcass weight, with little to no correlation to marbling score in a study presented by Colorado State University.

Looking more at the prevalence of BCHF, from 2017-2019 "less than 1% of cattle placed on feed were dying of this disease," Retallick-Riley said, and the call to research the disease came about as a grassroots effort among producers.

A consistent theme since that time, as with most research efforts, is the need for quality data.

Relying on records from producers and researchers alike—heart scores, genetic testing and phenotypic data—all continue to be important for better understanding BCHF.

"Animals that are dying of congestive heart failure deaths, those are the ones that never make it to the processing plant," Retallick-Riley said. "That also means that good data recording in the field is crucial as well."

When looking at heart scores in particular, preliminary results of current research efforts show a 23% incidence rate of BCHF when hearts score as a 3 or 4. As a reminder, there are no 5s at the packer in the recent data collected by AGI, because those hearts have already given out under the pressure of the disease.

When studying this disease, Retallick-Riley said she tries to think of the whole animal as a system rather than just focusing on the heart.

"Heart score genetic tools could potentially help us reduce the caseload, but I doubt that it's going to eliminate the disease entirely," Retallick-Riley said. "Colorado State's research has preliminary heritability estimates of about 0.28. What about the other 72%?"

She said, "If we put direct selection process on heart score alone, we could create cattle with less heart remodeling. We may also decrease the carcass weight on these cattle based on initial reports."

Retallick-Riley said her team at AGI and partners on the project have thought about developing some type of multi-trait index, but more research is needed to identify the best tools for widespread use.

"One of the things that we need to continue to think about is how we're going to use this at the end of the road, how we're going to use this to impact production and selection decisions," she said.

For more information on BCHF and related research efforts, visit bit.ly/BCHF-WorkContinues. — **Sarah Kocher, Angus Communications**

Strong finish for beef exports in 2023

While 2023 beef exports were below the record totals posted the previous year, December exports were the largest since August and December export value increased 10% year-over-year, according to year-end data released by USDA and compiled by the U.S. Meat Export Federation (USMEF).

December exports of U.S. beef totaled 108,497 metric tons (mt), down 4% year over year but the largest since August. Export value was also the highest since August and climbed 10% year over year to $860.8 million.

2023 beef exports totaled 1.29 million mt, down 12% from the 2022 record. While export value fell 15% to just under $10 billion, this was still the third highest annual value for beef exports.

Mexico's demand for U.S. beef continued to strengthen in December, pushing 2023 exports to the largest volume since 2019 and export value to $1.19 billion, the second highest on record.

Beef exports to Central America and the Dominican Republic were record-large in 2023, while shipments also trended higher to Hong Kong, Africa and Peru. While December exports to leading market South Korea remained lower than a year ago in volume, export value ($220.6 million) was the highest in 18 months. This helped push December export value per head of fed slaughter to $431.50, the highest since April. For the year, per-head export value averaged $397.04.

"There is no question that 2023 was a challenging year for U.S. beef exports, especially in our largest Asian markets where economic conditions have weighed on foodservice demand," said USMEF President and CEO Dan Halstrom. "Of course, we were also challenged on the supply side, with less product available for export. But nevertheless, U.S. beef achieved excellent growth in Mexico, Central America and the Caribbean, and we are encouraged by the December uptick in demand in South Korea and China. It was also great to see such strong per-head export value in December, topping $430."

Lamb exports declined

Led by growth in Mexico, the Bahamas and the Netherlands Antilles, December exports of U.S. lamb totaled 186 mt, up 13% year-over-year, while export value climbed 16% to $1.1 million. For 2023, exports declined 16% to 2,355 mt, while value fell 15% to $12.6 million. Full-year exports increased to Central America, the Netherlands Antilles and the Bahamas, but declined to Mexico and Canada.

A detailed summary of the 2023 export results for U.S. beef, pork and lamb, including market-specific highlights, is available from the USMEF website, usmef.org. — **USMEF**

New year brought increased consumer interest in food

Food or nutrition-related New Year's resolutions were more popular among consumers going into 2024 compared to last year, according to the January Consumer Food Insights Report. This year 25% of consumers responded "yes" when asked if they had any food or nutrition-related New Year's resolutions, up 6 percentage points from the response to the same question last year.

The survey-based report out of Purdue University's Center for Food Demand Analysis and Sustainability (CFDAS) assesses food spending, consumer satisfaction and values, support of agricultural and food policies, and trust in information sources. Purdue experts conducted and evaluated the survey, which included 1,200 consumers across the U.S.

"The top words that popped up in people's resolutions showed most consumers were focused on eating healthier by either limiting the intake of foods like sugar or increasing the intake of foods like fruits and vegetables," said the report's lead author, Joseph Balagtas, professor of agricultural economics at Purdue and director of CFDAS.

Some of the January survey results were categorized by body mass index (BMI), using the Centers for Disease Control and Prevention's adult BMI calculator.

"We see a slightly larger proportion of overweight consumers with resolutions, 29%, compared to non-overweight consumers with resolutions, 20%," Balagtas said. Consumers cited improving health and weight loss as the top motivations behind their resolutions. Weight loss, however, was a primary motivator for 60% of consumers classified as overweight, compared to 26% of non-overweight consumers.

To create this month's diet and nutrition survey questions, the research team consulted Purdue's Heather Eicher-Miller, professor of nutrition science in the College of Health and Human Sciences.

"As one might expect, the majority of consumers plan to increase their consumption of fruits, vegetables and water while limiting the intake of salty snacks, sugary foods, regular soft drinks and alcohol," Balagtas said.

Among consumers who planned to decrease their consumption of a certain food, 46% anticipated cravings as an obstacle. For those trying to eat more of a certain food, a majority anticipated cost as a barrier.

"The survey reveals a strong perception that healthy diets are more expensive than less healthy diets," Balagtas noted. "And while this perception is true for many of the poorest people around the world, it's not necessarily the case here in the U.S. Measuring the cost of a diet actually turns out to be a little complex, and it's something we're working on at the center. But I think it is possible for most of us in the U.S. to improve our diets in a cost-effective way."

> *"Our survey highlights the intertwined problems of food insecurity and nutrition, and the importance of research for identifying solutions to both."*
>
> *— John Shaw*

Using the USDA's 5-point scale from "poor" to "excellent," the Purdue researchers found that 84% of consumers rate their diet as "good," "very good," or "excellent."

Consumers who knew of the USDA's and U.S. Department of Health and Human Services' Dietary Guidelines for Americans were more likely to report that their diet is healthy. The guidelines provide advice on what to drink and eat to ensure that nutrient needs are met.

"Awareness of the guidelines is a good sign, but when we look at what Americans actually eat compared to the recommendations in the guidelines, the grade on a scale to 100 would be a 58, or F+," Eicher-Miller said. "So it looks like people might have an optimistic view of their diets."

In the "Food Expenditures" category, average weekly food spending was $124 in January, up 20% from January 2022. "It is no surprise to see food spending increase, given the high food inflation we experienced during the same period," noted Elijah Bryant, a survey research analyst at CFDAS and co-author of the report.

Consumer inflation expectations and estimates—unchanged from last month—remained down slightly from last summer. However, the Consumer Price Index measure of food inflation in January was 2.7%, down significantly from last year.

And while the food insecurity rate has hovered around 13% since September 2023, the rate of households receiving free food declined to 12% in January from 15% in December.

"With food inflation on the decline, consumers may be seeing some relief on their wallets, reducing the reliance on free food to supplement their food purchases," Bryant observed.

The incidence of overweight is higher among consumers who are food-insecure or participate in SNAP. "The income effect may explain this pattern, as the incidence of overweight is higher and diet quality lower among low-income consumers," Bryant said. "Our survey highlights the intertwined problems of food insecurity and nutrition, and the importance of research for identifying solutions to both."

Most Americans continue to be considered "thriving" on the diet well-being index (63%). However, this average is lower than the 2022 (70%) and 2023 (69%) averages.

Overweight consumers report a slightly lower score on the diet well-being index compared to non-overweight consumers over the last 25 months, with 66% versus 73% considered "thriving," respectively. "However, it should be noted that the majority of all consumers remain happy with their diets and lives," Bryant said.

The January survey also asked consumers about their trust in food and nutrition-related information from organizations and professionals tasked with protecting public health and the U.S. food system. These include primary care professionals, the Food and Drug Administration, the USDA and the Dietary Guidelines for Americans. Consumers rated their trust higher in January compared to the 2022 and 2023 averages on the CFDAS trust index.

CFDAS is part of Purdue's Next Moves in agriculture and food systems and uses innovative data analysis shared through user-friendly platforms to improve the food system. In addition to the Consumer Food Insights Report, the center offers a portfolio of online dashboards. — **Purdue University Extension**

CA farmers regroup after storms batter state

With a respite from stormy weather, farmers say they are surveying for any damage and waiting for the ground to dry so they can access fields and orchards to make repairs or do other practices.

Historic and deadly storms that brought two weeks of rain and powerful winds to California led to mudslides, flooding and widespread power outages and related evacuations. A state of emergency was declared for eight Southern California counties.

In Santa Barbara County, farm manager Sheldon Bosio of Goleta-based Terra Bella Ranches said three mudslides affected about 40 avocado trees or about half an acre, which is half of what was lost from mudslides caused by storms last year.

"We farm a lot of hillsides, so a terrace will break from saturated soil, and then it moves and takes out the avocados below," Bosio said. "The avocado trees at the top of the hill, where the majority of the weight (from the mud) was, those got buried, but the trees at the bottom are salvageable."

He estimated it may cost $10,000 for large equipment to repair the terrace road, plus labor to replace irrigation infrastructure and remove mud and brush from the groves.

As for the avocados on the trees, Bosio said the fruit hasn't yet reached maturity.

"I don't know of anybody that has started picking, because with the rain, it's hard to get a crew in to pick, so everybody is waiting for things to dry out," Bosio said.

Steve Pinto, purchasing director for Salinas-based Markon Cooperative, which supplies produce to food service, said crops such as strawberries and cilantro in Ventura County were impacted by excessive rains.

He noted flooded fields meant strawberry farmers had to cancel or postpone production.

"Large-stemmed strawberries have been the biggest industry challenge for Valentine's Day orders due to weather this year," Pinto said, noting Markon can source product from other growing regions and doesn't anticipate supply gaps.

For the state's winter vegetable crop, which transitioned to the desert growing region last fall, Imperial County farmer John Shaw raised concerns of crop mildew. He noted grounds were already wet from earlier rains when the recent storm dumped more moisture.

Shaw, who grows conventional and organic produce in Holtville, said the weather hasn't disrupted harvest in his area. To minimize market disruptions, he confirmed that shippers packed orders in advance of the storms to supply customers.

Tulare County citrus farmer Matt Watkins, director of farm and field operations for Bee Sweet Citrus in Fowler, said the rain that hit the southern San Joaquin Valley is nothing close to the widespread flooding the region experienced last year.

Last March, water overtopped creek banks while reservoir releases flowed down rivers to the Tulare Lake bottom.

"Because we haven't really got the bull's-eye on us in these atmospheric rivers, we haven't had those major releases, so we've been lucky so far," Watkins said. "It's a good amount of rain but nothing like last year."

Citrus growers reported some weather impacts, Watkins said, such as a brief delay in picking navel oranges and some "quality issues like splits and different things that develop clear rot."

"Where we farm in San Luis Obispo, we had excess rain, so it is really wet, and we've had some small trees with their first crop that tipped over from the weight of the fruit, the wind and the wet, wet ground," Watkins said.

In Kern County, where winds exceeded 60 mph, almond grower Jenny Holtermann of Wasco said winds toppled 100 of her almond trees.

"Almonds are shallow rooted, so that is why we plant them against the wind. But this storm came the opposite way, so it didn't play in our favor," Holtermann said.

Holtermann said replanting depends on the age of the trees.

"If an orchard is 20-plus years old and you lose trees, you're probably not going to replant," Holtermann said. "But if an orchard is 15 years old, then you would probably replant because you'd get another 10 to 15 years out of them."

She said she must wait for drier conditions to do anything about the downed trees, adding tree removal will be expensive.

Glenn County almond grower Mike Vereschagin said he lost about 200 trees that were on older rootstock when winds knocked them over.

"It was a loss but wasn't as bad as I was expecting compared to other years," Vereschagin said. "When we had those big storms back in 2008, it was strong, 60-mph winds, and that year, I lost more than 6,000 trees."

Once he is able to access the affected orchards, Vereschagin said he will clear the trees and brush.

In addition, wet conditions make it challenging for beekeepers who are moving final honeybee colonies into orchards to pollinate the almond crop during bloom.

Even with farming challenges caused by the storms, farmers say they are grateful for the winter weather, which adds water to the state.

"We haven't had to pay for irrigation for a while, and Lake Cachuma is at well over 90%, so that is the net benefit," Bosio said of the Santa Ynez Valley reservoir.

"It is heartbreaking when you tend to orchards and then something happens that is out of your control, and you've got to start over," he said. "But the overall benefit of the water negates the damage."

Imperial County farmers, who rely on the Colorado River, Shaw said, have decreased water use significantly due to the rain. He said the storms increased the elevation in Lake Mead and Lake Powell.

"California is pretty resilient, and the farmers are resilient. But we need to strike a balance," Shaw said. "If we had more water storage, it would certainly minimize the issues of farming and water supply, even to the cities."

State and federal water officials said the past few weeks of storms were warmer than average, producing rain rather than snow at higher elevations.

The statewide Sierra Nevada snowpack, which was at 73% of average as of Feb. 12, supplies about 30% of the state's water needs. — **Christine Souza, Ag Alert assistant editor, California Farm Bureau Federation**

Feeding high quality hay after calving

Good cow nutrition is crucial following calving to get cows rebred. Today, let's look at the reason for using our top-tier hay after calves hit the ground.

Because cows experience a lot of stress after calving, they need good feed. Not only is the cow producing milk for her calf, she is also preparing her reproductive system to rebreed. As a result, nutrient demands are high. Energy requirements increase about 30% and protein needs nearly double after calving. Underfeeding reduces the amount of milk a cow provides her calf, and it can delay or even prevent rebreeding. If it gets cold, wet or icy again, nutrient demands can skyrocket.

Even if animals can get to them, winter grass, corn stalks and other crop residues are low quality right now since these feeds have weathered and are well picked over. Therefore, it is critical that the hay or silage you feed will provide the extra nutrients your cows need.

Because of this, not just any hay or silage will do. After calving a cow needs 10-12% crude protein and 60-65% total digestible nutrients in her total diet. If she is grazing poor quality feeds or eating grass hay, your other forages and supplements must make up any deficiencies.

Make sure your forage has adequate nutrients; if you haven't done so yet, get it tested now for protein and energy content. Compare this to the nutrient requirements of your cows. Then feed your cows a ration that will meet their requirements. Use supplements if needed, but don't overfeed, either.

Calving and the months after are a stressful time for cows. If we underfeed, it can delay rebreeding and slow down calf growth. Use your best quality forages with any needed supplements to provide adequate nutrition. By meeting nutrient requirements, your cows will milk well, rebreed on time, and produce healthy calves year after year. — **Ben Beckman, Nebraska Extension**

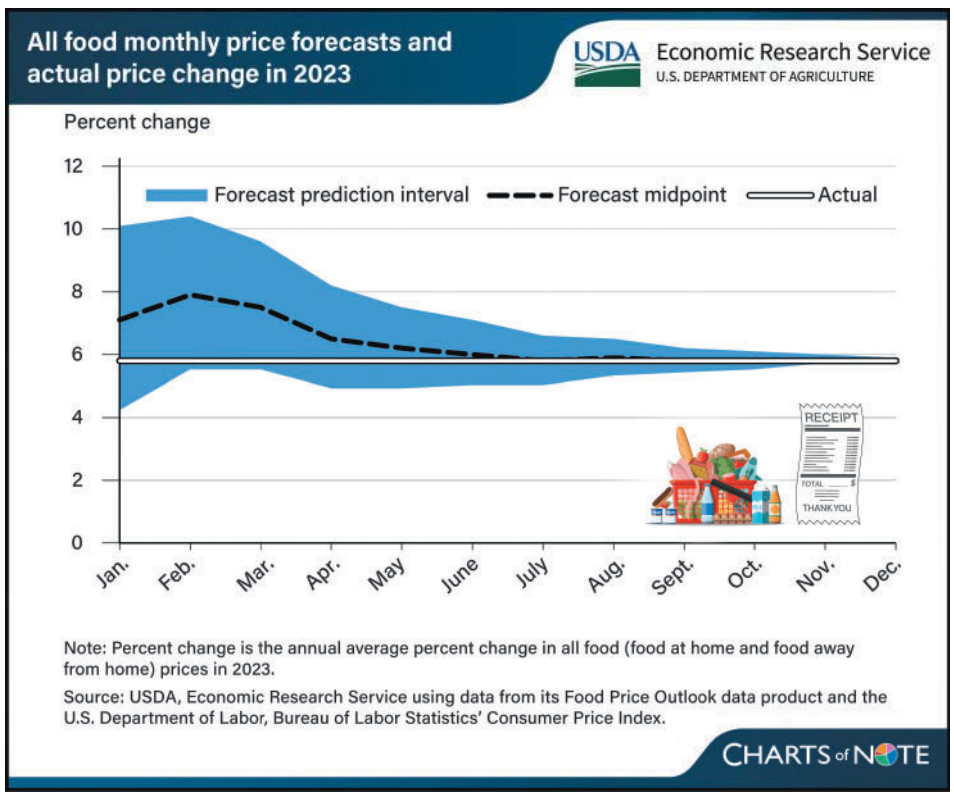
Price forecasts converged on actual food price changes

In 2023, all food prices (representing both food at home and food away from home) increased by 5.8% on average compared with 2022.

The USDA's Economic Research Service (ERS) publishes food price forecasts in the Food Price Outlook (FPO) data product. Each month, the FPO forecasts the annual average change in prices for the current year, and the forecasts are presented as a midpoint and a prediction interval. The prediction interval, which represents uncertainty of the forecast, starts out wider at the beginning of the year and narrows as forecasts incorporate more months of observed data and the forecast period shortens.

In January of each year, final data are available to assess the performance of the forecasts from the previous year. During the first few months of 2023, the all-food forecast midpoints were higher than the actual annual average change in all food prices, but the prediction interval from each forecast developed in 2023 contained the actual annual average change in prices.

By July, the forecast midpoint converged on the actual average change in prices and remained within 0.1% through the remainder of the year. ERS researchers project all food prices to increase 1.3% in 2024, with a prediction interval of -1.4 to 4.2%. — **USDA ERS**



Cattle groups stress voluntary aspect of ID program

NCBA
(from page 1)

There was much buzz on social media ahead of the committee meeting, with beef producers sharing mixed feelings about a traceability system.

The advanced interim policy supports an enhanced animal disease traceability system. The policy reads that most major beef-exporting companies have implemented animal ID and traceability systems, and the World Organization for Animal Health (WOAH) has adopted guidance on ID and traceability.

In addition, the 2021-2025 beef industry Long Range Plan calls for the adoption of an individual animal ID disease traceability system to manage disease outbreaks and enhance trust in U.S. beef.

The policy therefore supports the development and implementation of a national animal disease traceability system.

The committee voted that an animal disease traceability program should have the following components:

- Be compatible with private sector animal ID and verification programs backed by the USDA.
- Be compatible with the general traceability principles of WOAH.
- Recognize existing USDA programs for beef exports.
- Be built using infrastructure that supports other potential uses of ID.
- Utilize low-cost electronic official tagging devices and reader infrastructure, paid for by federal and/or state funds.
- Require data to be kept confidential and strongly protected from disclosure.
- Protect ownership information from disclosure to future owners.
- Protect producers from liability for acts of others, after the cattle have left the producer's control.
- Operate at the speed of commerce.
- Maintain existing state brand inspection activities without replacement or impediment.
- Work within a framework to accommodate all classes of cattle.
- Allow for separate rulemaking process for cattle under 18 months of age.
- Allow cattle movement between adjoining states on pasture-to-pasture permits at the discretion of the involved state animal health officials.
- Maintain data integrity throughout the system, including retagging and retirement of tags at harvest.
- Provide adequate resources to the states and include the transition to any electronic identification.

The policy also supports the adoption and implementation of electronic ID (EID) tags for interstate movement of all cattle included in the 2013 USDA animal disease traceability rule (intact cattle older than 18 months, rodeo and exhibition cattle, and dairy cattle). NCBA will provide outreach and education following the publication of USDA's final rule requiring EID tags for these classes of cattle.

Finally, the policy supports a private, industry managed, non-government Independent Database Collaborator for critical data coordination. This includes data collection and housing for four data points: ID numbers, times, dates and locations; coordination with USDA's Animal Health Event Repository and major animal identification program organization; and a defined process for animal health officials to interact with the database in the event of a significant disease outbreak.

Other cattle groups' reactions

On Jan. 24, the U.S. Cattlemen's Association (USCA) released a statement in support of a voluntary national animal identification system. The group said the system should have no private control of data, or access to the data, without permission from the cattle's owner at the time.

USCA continued that all official data should be held in state animal health databases and shared with animal health officials only as needed. The group stressed that no national cattlemen's association should be able to coordinate or control producer data.

"USCA supports a voluntary national animal identification program and opposes the establishment of a national mandate," said USCA President Justin Tupper. "Our members believe that each individual producer knows what's best for their herd as it relates to animal husbandry practices."

The organization advocates for producers to never be responsible for more than the cost of the tags, and that premises identification numbers should not be required to acquire and apply EID tags. In addition, USCA's stance is that official ID should only be required for breeding cattle and only as they move into interstate commerce, or as determined by each state's importation requirements.

As the industry moves to adopt EID, financial assistance will be required from USDA, the group said. Additionally, "As any future transition is made to EIDs, the process will eventually need to move to (ultra-high frequency) in order to improve read range and the ability to read animals and groups at speed of commerce."

Ranchers-Cattlemen Action Legal Fund, United Stockgrowers of America (R-CALF) is against a mandatory EID program. R-CALF claims the EID movement is an attempt to boost the USDA's status as a team player in the global beef arena, and track industry greenhouse gas emissions.

"It's not about disease traceability—that's just a pretext," Bill Bullard, R-CALF CEO wrote in an oped. "It is all about control. It's all about managing and controlling an industry that's impossible to control unless you have the cattle industry's nearly 100 million cows individually identified and categorized in an electronic spreadsheet." — **Anna Miller, *WLJ* managing editor**

At the heart of the issue: Heart health in cattle

ASA's 2023 Fall Focus event honed in on several issues that are top of mind for the industry today. This included five expert talks about heart health in beef cattle. Pulmonary arterial pressure (PAP) testing has been standard practice for many seedstock producers for some time, often preventing costly loss for those who run cattle at high elevation.

Additionally, bovine congestive heart failure (BCHF) has been on the rise in feedlots, killing cattle days before harvest. Like many things in the beef industry there are a variety of factors at play, from environment to genetics and management, which makes getting to the root of an issue like heart failure difficult. Please note that the following summaries are not comprehensive, but rather highlights of each presentation.

ASA

Participants from across the country gathered in Denver, CO, for Fall Focus 2023.

Justin Buchanan, Ph.D., geneticist, J.R. Simplot Company.

Dr. Justin Buchanan is primarily responsible for managing genetic evaluation and genetic improvement across Simplot resources. Buchanan shared data collected at Simplot concerning BCHF, first clarifying the difference between BCHF and PAP.

"We certainly see an uptick in congestive heart failure when it gets warm in Grandview, ID," he said. "There's a genetic component for PAP, and a genetic component for congestive heart failure. We know the genetic correlation probably isn't there, so that indicates there's a separate set of genes leading to congestive heart failure."

Buchanan continued, "There's an independent set of genes leading to PAP, but there is also some crossover. These two traits are related, and it's pretty clear from the physiology how that works."

Simplot has the unique opportunity to track cattle throughout the cycle from the ranch to the feedyard. Buchanan gave an example of a recent group of cattle from one of Simplot's cow-calf operations that had 26 heart failure mortalities in a group of 988. The majority died just weeks before harvest.

"This is why this trait is so important to us and why we've invested a pretty big chunk of our research budget in designing a tool that works today," Buchanan said.

To gather data at Simplot's packing facility (CS Beef), Buchanan and his team evaluated hearts as animals were harvested. By scanning the carcass tag, the heart score went back into the feed yard system, tying the data together.

"To date we've collected close to 79,000 heart scores all out of CS Beef. These are all fat cattle that walk through the plant," he said. "The big picture here is that since 2020 around 4.3% of cattle that walk through the packing plant door are at a heart score four or five. So, they are in end-stage heart failure, so with one more stressor or one more weather event those cattle would have died in the feedlot."

Buchanan and his team then took this data and did full genome sequencing. "This is a moderately heritable trait. It's in line with carcass weight and gain, and there's an opportunity for selection," he shared.

The Simplot team used a multi-breed approach, and compared data across various breed compositions, with more concentration in blackhided cattle. "It is a problem with every breed," Buchanan said.

Mark Enns, Ph.D., professor, Colorado State University.

Dr. Mark Enns teaches courses at Colorado State University (CSU) in animal breeding and genetics, and livestock production systems. His primary research focuses on beef cow adaptability/longevity, sustainability, and genetic improvement in susceptibility to high mountain disease and bovine congestive heart failure.

Enns discussed the development of a PAP EPD. There are many considerations, including genetic variability, environmental influences, what is being measured, the construction of contemporary groups, and more. Due to the lack of data on PAP, finding correlated traits is also helpful.

"Our goal in developing PAP EPD was to give breeders a tool to select animals that are less susceptible to pulmonary hypertension, and ultimately the probability of a death," Enns shared.

Heritability is a primary focus. Enns' team found that there is a genetic contribution to overall pulmonary hypertension. The next piece involved looking at the environmental, or non-genetic factors that influence the PAP measures. Things like parasite load can affect PAP scores.

"We know that respiratory disease or anything that damages the lung function is going to influence that observation that we get when the veterinarian takes a PAP," Enns explained.

This information, in addition to adjustments for elevation, age, temperature, and more are considered when determining contemporary groups. "They've all had the same opportunity to express genetic differences," Enns said.

Heterosis is another factor that Enns and his team explored. "We know in the context of our research that heterosis has a favorable effect on pulmonary arterial pressure," he said.

Enns also discussed the nuances of effectively using a PAP EPD. "PAP is a unique trait because it's not just the EPD we're concerned about, but also the genetics it passes on," Enns said. Matings add another challenge. "This is where pulmonary arterial pressure is a unique trait because you need to interpret that it's a new EPD in the context of where the herd is currently, and how the genetics will be used," Enns explained.

Enns also clarified that a PAP EPD may be useful when looking at genetics and the next generation, while a PAP score is going to be the most useful for animals that will actually be living at a high elevation.

"Where we're at with our work right now is looking at how we can utilize genomic information to up the accuracy of our PAP EPD and give you as breeders better tools to select against this," Enns concluded.

Tim Holt, DVM, professor and clinical instructor, CSU.

Dr. Tim Holt has been measuring PAP scores in the western U.S. since 1980 and has studied pulmonary hypertension in cattle extensively. Currently, he is studying and evaluating the increase in feedlot cardiac death, and potential ties between bovine high mountain disease and acute cardiac failure. Holt also gave a live PAP scoring demonstration at Fall Focus 2023.

Holt explained the physiological process of heart failure in cattle. Hypoxia, which is a lack of oxygen to the body, is what happens when the heart isn't pumping blood and oxygenating the lungs. "The most common reason for that is altitude," he explained.

Shunting is the process of blood being pushed from the bottom to the top where it becomes oxygenated. When this fails, an animal becomes hyperresponsive. In cattle, the heart can remodel to accommodate for a number of issues, in which case the heart works harder to get oxygen

into the blood.

"It [the heart] goes through this muscle thickening called pulmonary hypertrophy, where the muscle gets thicker and thicker. If that one gallon of blood can't get into the lungs, hence we have pulmonary hypertension and that heart is going to work and work to try and overcome that, until finally it goes into right ventricular dilation and death," Holt explained.

He also shared an example demonstrating the severity of PAP issues: in a group of 435 calves, 117 died before six months of age from congestive heart failure. Holt explained, "I look at a sire group with a lot of potential for high PAP, and therefore I'm going to draw the conclusion that the sire may not be good for use in altitude."

Scott Speidel, Ph.D., associate professor, CSU.

Dr. Scott Speidel is an associate professor of beef cattle breeding and genetics in the Department of Animal Sciences at CSU. Speidel's research interests include the development of models for genetic evaluation of efficiency and adaptability traits in beef cattle. Speidel discussed the development of genetic prediction for heart failure.

Developing genetic prediction tools requires a robust dataset. "We need a lot of data that we can collect relatively inexpensively, get reported, get the pedigree associated, and then we can actually make a genetic evaluation," Speidel explained.

The scoring system for heart failure ranges from one to five, with one and two being healthy, and three to five being an issue. Speidel shared that his research has involved collecting heart scores at packing plants.

Speidel's research uses a holistic approach, with a focus on understanding the relationship between heart score and the other measures that are already taken on animals. "One of my biggest goals was to really understand how heart scores relate to other carcass traits," Speidel shared. "How they relate to feed intake, or pulmonary arterial pressures that we're already measuring."

As of August, 1,400 head of Angus-influenced cattle harvested in the Texas panhandle had been evaluated. The data also included a subset of PAP and feed intake scores. In that group of cattle, 71% had normal heart scores, while 29% were "unhealthy threes or fours."

"The feedyard didn't have any mechanisms of identifying animals prior to them having extreme heart failure, so we never observed those in the plant," Speidel continued, adding that in some populations up to 40% of cattle have an affected or unhealthy heart at harvest.

In addition to heart scores, Speidel's team has collected PAP scores, including at nine months of age as they enter the feedlot, and from two to four weeks before harvest. PAP scores increased (worsened) across the feeding period, at a low elevation, which is not expected. "Higher PAP scores are indicating higher heart scores, phenotypically," Speidel said.

When looking at the relationship between heart failure score and other carcass traits, the strongest relationship was found with hot carcass weight. "We have a .063 core genetic correlation between heart score and carcass weight," Speidel shared. "The way I like to think about that is if you think about two traits that have a set of genes, and the genetic correlation is measuring the percentage of genes influencing both traits. So, 63% of the genes that influence hot carcass weight are also influencing our problems with heart score."

Larger ribeyes were also noted as having a stronger correlation than other carcass measures.

Brian Vander Ley, DVM, associate professor and veterinary epidemiologist, University of Nebraska–Lincoln.

Dr. Brian Vander Ley conducts research aimed at improving livestock health and well-being and serves as a veterinary Extension specialist. Concerning the issue of heart failure, Vander Ley said, "What we'd really like to do is figure out how to make animals healthier by figuring out what we can tie to the associations between characteristics of animals, the environments they live in, and the things we do to manage them for the outcomes we're interested in."

One of the most challenging aspects of heart failure in cattle is determining what is associated, and what is causally related. "We see a lot of variation in not just the manifestation of a particular disease, but often in the paths that can lead to the development of a particular syndrome," he explained.

Vander Ley then discussed the cardiovascular system, comparing the system to a relay race: when the baton holder doesn't get to the next runner in time, the whole system fails. "The heart is entirely dependent on elastic vasculature. All the blood vessels stretch out a little bit, and once the heart relaxes, that stretched-out blood vessel will push blood back into the heart," Vander Ley described.

The heart and cardiovascular system are finely tuned. The heart has two circuits: one oxygenates blood, and the other goes out to the organs and muscles. Each has to pump the same amount of blood to stay in balance. The right side of the heart is responsible for oxygenating the blood via the lungs, which is why "right-sided" heart failure is referenced in cattle.

Studying the progression of heart failure in cattle is particularly challenging. Vander Ley explained that things like echocardiography, which is used on humans, doesn't work because of the amount of tissue the ultrasound would have to get through. Another challenge is identifying the actual cause, or incident, that leads to heart failure. "One of the most challenging things about heart disease is that in order to know when the insult happens, we have to figure out what the insult is, which is the holy grail of research," Vander Ley said.

The heart of an animal in heart failure will compensate for some time by increasing in rate, or building extra muscle, masking the issue. Additionally, the timing of the failure when a heart is evaluated presents a challenge for researchers. Vander Ley asked, "Are we looking at different stages of progression, or are we looking at different severities of disease?" — **Lilly Platts, ASA editor**

2022 Ag Census shows Idaho lost 2,119 farms

Idaho lost 2,119 farms, or 8.5% of its total farms, between 2017 and 2022, according to the 2022 Census of Agriculture.

Data from the 2022 ag census was released Feb. 13 and it showed there were 22,877 farms and ranches in Idaho during the 2022 census year. That was down from 24,996 farms during the 2017 census year.

The data shows there were 1.9 million farms and ranches in the U.S. in 2022. That was 7%, or 142,000, fewer farms than during 2017.

The Census of Agriculture is conducted every five years and is the only source of uniform, comprehensive and impartial agricultural data. It provides millions of potential data points on U.S. farming, down to the county level.

The 2022 census shows there was 11.55 million acres of total farmland—this includes crop and pasture land—in Idaho during the recent census year. That is a 1.2%, or 144,000-acre, drop from the 11.69 million acres of total farmland in the state in 2017.

Nationwide, the amount of total farmland in 2022 was 880 million acres, down 2.2% from 900 million acres in 2017.

While presenting highlights of the recent ag census during a livestream event Feb. 13, U.S. Secretary of Agriculture Tom Vilsack said the loss of farms and farmland in the U.S. is concerning to him.

"Survey after survey continues to show a decline in the number of farms and in farmland," he said. "The amount of farm decline is significant. It's particularly significant in this survey."

To put the loss of 20 million acres of U.S. farmland in perspective, Vilsack pointed out that would equal the land mass of every New England state, with the exception of Connecticut.

Idaho Farm Bureau Federation President Bryan Searle, who farms in Shelley, ID, said the loss of farmland is also of concern to Idaho's agricultural industry and shows why it is important for IFBF and other farm organizations to continue to find ways to try to slow the rate of farmland loss in the state.

According to a University of Idaho study released this year, agriculture is directly and indirectly responsible for 13% of Idaho's total gross state product, one in every 9 jobs and 17% of the state's total economic output.

"It's heart-wrenching to learn we lost more than 2,000 farms and 144,000 acres of farmland," he said. "As Idaho Farm Bureau joins other organizations in trying to find a way to slow the loss of the state's precious farm ground, this latest ag census data serves as sort of a wake-up call on the importance of those efforts."

The Census of Agriculture was first conducted in 1840 and its data is available for the national, state and county levels, as well as by congressional district, zip code and watershed.

"For decades, the information provided through the Census of Agriculture has helped us understand American ag," Chavonda Jacobs-Young, USDA under secretary for research, education, and economics, said during the livestream event.

She said the data is critically important in supporting sound policy and decision making.

"Bottom line, we need data to make well-informed decisions," Jacobs-Young said.

Other national and Idaho highlights of the 2022 Census of Agriculture:

- The average size of a farm in Idaho during 2022 was 505 acres, up 8% from 468 acres in 2017.
- Nationally, the average size of farm in 2022 was 463 acres, up from 441 acres in 2017.
- Canyon County had the most farms in Idaho in 2022, with 2,311 farms. Twin Falls County ranked second (1,169), followed by Ada County (1,142) and Bingham County (1,081).
- When it comes to total value of agricultural production, Cassia County ranked No. 1 among the state's 44 counties with $1.15 billion in 2022. Twin Falls County ranked second ($1.14 billion), followed by Gooding County ($1.12 billion), Jerome County $944 million) and Canyon County ($829 million).
- The average age of an agricultural producer in Idaho was 56.6 in 2022, up slightly from 56.4% in 2017. Nationally, the average age of a farmer ticked up from 57.5 in 2017 to 58.1 in 2022. — **Idaho Farm Bureau Federation**

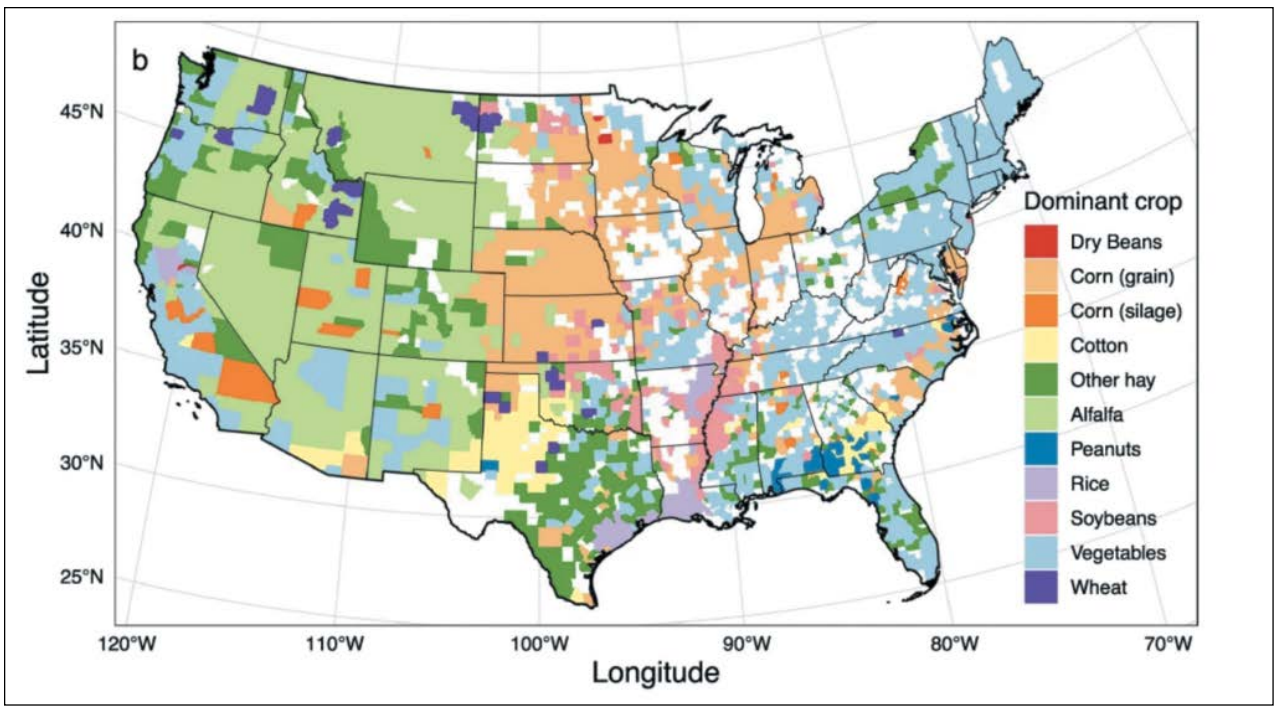
Researchers quantify GHG emissions from irrigation pumping

Irrigation pumping on U.S. farmland accounts for approximately 16% of all greenhouse gas (GHG) emissions from energy use in agriculture, forestry and fisheries, according to new work led by Colorado State University (CSU) researchers published in the journal Nature Communications.

"Irrigation is a super promising adaptation strategy for climate change," said Avery Driscoll, a doctoral student in CSU's Department of Soil and Crop Sciences and the paper's lead author. "But we knew very little about irrigation's impact on greenhouse gas emissions."

Driscoll and her co-authors spent two years analyzing multiple data sets to generate irrigation energy emissions estimates for all 50 states. Data included on-farm irrigation pumping information reported in the USDA's Irrigation and Water Management Survey, fuel expenditure data and county-level estimates of water demand by crop.

Particularly in agriculture, Driscoll said, most existing emissions estimates have been production-based rather than consumption-based. This shift in thinking has the potential to aid farmers, scientists and policymakers long-term, she said.



"We think it's valuable to think about this from the end-user perspective," Driscoll said. "If we know, 'OK, irrigation is using this much energy,' then we can target a specific activity to achieve some of our climate goals."

Beneath the surface

Emissions impact varied greatly depending on several factors, according to the study. Notably, groundwater pumping contributed to 85% of all on-farm irrigation emissions even though groundwater accounted for just under half of irrigation water use across the country. The rate of emissions for groundwater irrigation use was five times greater than for surface water, according to the study.

What's more, the depth of the groundwater being withdrawn had a significant impact. The study's authors noted that "emissions from groundwater utilization will increase as aquifer levels decline in areas where rates of extraction exceed rates of recharge."

"Emissions were really heavily dominated by groundwater pumping," Driscoll said. "So, for thinking about the issue of how we reduce emissions, that's something to keep in mind."

Location, location, location

The significance of groundwater pumping also meant that emissions numbers tended to differ significantly based on location.

"Emissions were really spatially heterogeneous," Driscoll said. "By doing this analysis at the county level we were able to start to pull out some of those patterns."

Grouped by state, Texas, Nebraska and California produced the highest emissions, accounting for 46% of irrigation-related greenhouse gas emissions even though those states contain roughly 39% of the cropland. States in the Northeast and upper Midwest saw the lowest irrigation emissions totals.

Viewing the data at a more granular level, however, told a slightly different story. The 237 counties that sit atop the High Plains Aquifer "had a particularly outsized contribution to national emissions, accounting for 44.7% of irrigation energy use emissions despite containing only 27.6% of all irrigated area."

The High Plains Aquifer, also known as the Ogallala Aquifer, spreads 174,000 square miles across eight Midwestern states, and is the main water source for one of the country's most significant agricultural regions.

On the other hand, the Colorado River Basin, although more arid, relies heavily on surface water; the region produced comparatively lower emissions numbers, accounting for about 9% of national pumping emissions, according to the study.

Electrification matters

The type of fuel used to operate an irrigation pump was another significant factor in the study's estimates. Electric pumps were the most widely used, accounting for nearly 70% of pumping emissions.

Electric pumps produced lower average emissions than devices powered by natural gas or other types of fuel. They also present a significant opportunity because of the widespread efforts already underway to decarbonize the electrical grid.

"A big takeaway from this study is that electric pumps are key to decarbonizing our irrigation systems," said CSU Associate Professor Nathan Mueller, a co-author on the study. "As the electricity grid gets cleaner, emissions from electric pumps will decrease. So, if we can transition natural gas, diesel and propane pumps to electric pumps, we can accelerate this decarbonization."

Crops and what's next

The study also estimated emissions based on 12 major irrigated crops, finding that corn grain "produced the most total emissions by a large margin." Soybeans were the lowest emitters of the 12 crops analyzed.

Whether it's crop, fuel type or location, understanding emissions impacts from irrigation can help the agricultural industry better meet the significant challenges posed by climate change, Driscoll said. (Food production accounts for about one-third of all greenhouse gas emissions.)

"Irrigation expansion for climate change adaptation is not going to be random," Driscoll said. "We're seeing contractions in the Western U.S., where we have these water scarcity limitations, and are seeing expansion in the Eastern U.S., where we're seeing more frequent and intense drought, incentivizing the adoption of irrigation because they still have a water supply."

Although Driscoll said irrigation was a particular blind spot, she hopes new work will continue to examine emissions and energy use at a more detailed level. "This analysis really highlighted to me the value of getting this kind of management-activity level data," she said. "Then we can make decisions about mitigating our emissions in a way that doesn't negatively impact our production." — **Christopher Outcalt, CSU College of Agricultural Sciences**

As organic sector thrives, research seeks to catch up

California leads the nation in organic agricultural production, accounting for more than $14 billion in organic sales and 36% of the U.S. organic market in 2021.

Yet research has lagged behind the exponential growth of organic farming in the state.

Now that trend may be changing, thanks to an increasing focus on supporting organic studies and information sharing.

In 2020, the University of California (UC) system opened the Organic Agriculture Institute to facilitate development of organic research and extension programs.

The institute's launch came a year after UC Santa Cruz elevated soil scientist and agroecologist Joji Muramoto as the state's first UC Cooperative Extension organic production specialist. Muramuto has conducted extensive research on soil-borne disease management in organic vegetable production.

Darryl Wong, executive director for the UC Santa Cruz Center for Agroecology, said the center is working to connect farm-level findings of organic growers with the more specialized studies performed by academic researchers.

"Farmers do action research that starts with what happened in the field; epistemic research takes it to the question of how and why it happened," Wong said. "To move organic forward, we need to balance these two research approaches."

With organic studies drawing increasing funding interest, researchers and growers are looking to identify potential study areas that are best connected to day-to-day challenges of organic farming.

"Soil health, water and pest management are at the top in our preliminary survey of growers," said Shriya Rangarajan, postdoctoral researcher at the UC Organic Agriculture Institute.

Rangarajan said many organic farmers have relied on getting information from other growers because of a lack of organic farm advisors and research.

The institute is attempting to coordinate the sources of information about organic agriculture scattered throughout the UC and Cooperative Extension systems and identify the most important knowledge gaps.

The institute was launched with an initial $500,000 endowment from Clif Bar & Co. and $500,000 in matching funds from the UC Office of the President. In 2022, the California Department of Food and Agriculture (CDFA) awarded $1.85 million to help the UC system increase technical assistance for organic farmers.

Without an established network of Cooperative Extension advisors with expertise in organic production, many growers had developed a knack for searching on their own for specialists to advise them, said Larry Jacobs, president and co-founder of Jacobs Farm del Cabo, a Santa Cruz-based organic producer.

"Find people who are knowledgeable, hook them in, support them, and don't give up," Jacobs suggested during a panel discussion in Monterey called "Understanding Evolving Production Challenges for Organic Growers."

Rangarajan said economic realities can be particularly important for new or smaller organic farmers.

"Transitional growers have additional challenges accessing capital and markets," Rangarajan said. "There is a consolidation on the buyer side, and that affects prices. We need to expand the scope of organic research to include ag economists and nutritionists."

In 2020, the Organic Farming Research Foundation surveyed more than 1,100 certified organic and 71 transitioning-organic farmers and ranchers across North America about their production systems, soil-health management practices and pressing production challenges.

According to survey results published in 2022, 67% of organic growers identified controlling weeds as a prime challenge. Managing production costs was cited by 59%, and 48% said soil fertility and crop nutrition was a challenge.

Jacobs, who farms 400 acres of organic culinary herbs, stressed the importance of organic research and expertise.

At the Monterey panel session, he described working with a CDFA biological control unit to help solve a squash bug problem.

He said he found the answer to nematode management in tomatoes was a combination of using more tolerant varieties and rotating into mustard as a biofuel crop that also served as a biofumigant for the soil.

Jacobs' organic research interests extend far beyond California's borders. He has searched for experts who could help control fruit flies on organic hard squash in Tanzania.

He said organic growers face unique crop-production challenges because they rely on biological solutions, which don't draw the same research attention and corporate funding for studies as do chemical formulas used in conventional agriculture.

"There are better biological solutions, but no one is making money off them, so nobody is pushing them," Jacobs said. "Organic research has been a neglected tool for a long time, but that is starting to change." **— Bob Johnson, reporter for the California Farm Bureau Federation**

How much water do cows really need during winter?

It's no surprise that the main topic of conversation in the winter is how to help cows maintain condition through cold temperatures. Supplementation and feeding are always on producers' minds, but one often overlooked topic during cold weather is water. How much water do cows really need during cold weather?

Growing up in Nebraska, our cows were always grazing crop residues during the winter and there was rarely a natural water source. Because of this, water was hauled. Some Oklahomans look aghast when I tell them this, but I can honestly say it was just part of the job. Instead of supplementing cows with feed most of the winter, we hauled water.

A fact of beef production is that decreased temps increase the need for additional energy. This extra energy often comes in the form of dry feeds such as hay, byproduct cubes or commodity blends. Water is essential to helping cows digest this additional feed. Limiting water will in turn compromise feed intake and make it very hard for cows to maintain weight.

Another factor that affects water need is the stage of production. The need for water will increase with the demands of production. For example, lactating cows will require more water than pregnant, dry cows. Water intake data collected by Oklahoma State University (OSU) and other research institutions has provided baseline water intake data for all production stages of cattle so that people hauling water or building new water infrastructure can estimate total water needs by cattle.

So how much water do they need? Water requirement guidelines are listed in OSU factsheet AFS-3299 "Estimating Water Requirements for Mature Beef Cows." This factsheet reports 1,300-pound cows experiencing 40 F require approximately 9-15 gallons of water daily. The lower end of that scale would apply to open or pregnant, non-lactating cows while the upper limits apply to lactating cows.

Further research evaluating this range of water intake is currently being collected by Dr. Dave Lalman and his research team. In the current study, 5-year-old cows weighing an average of 1,363 lbs. with calves at side have been consuming an average of 15 gallons since mid-November. Consumption by the calves is included in this average but Lalman said it would be accurate to assume they are drinking 1-2 gallons of this total amount.

That brings up a good point about the importance of water for calves. To ensure calves get enough to drink, fill tanks high enough so shorter animals can reach the water level. Natural water sources should be chopped so that calves can access the water source safely.

Water is usually a "hot weather" topic, but its importance should not be overlooked in the winter. Dehydration is an added stress for cows in cold weather. Help cows deal with winter stress and maintain their body condition by ensuring they have adequate water. **— Dana Zook, OSU livestock specialist**

FIGURE 1. HEIFERS HELD AS BEEF COW REPLACEMENTS

January 1, 1,000 Head

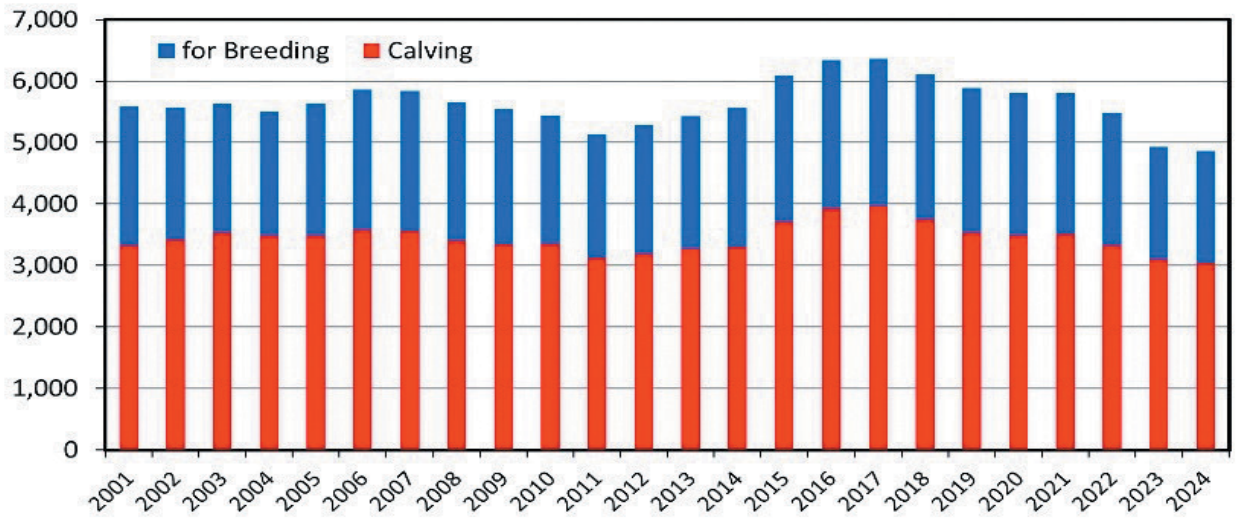
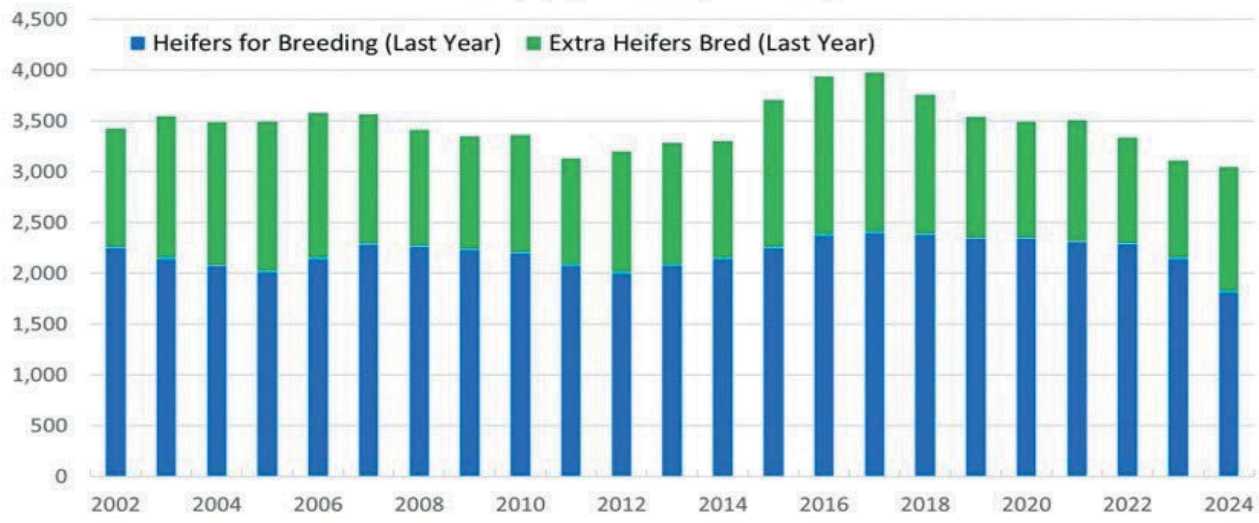


FIGURE 2. BEEF REPLACEMENT HEIFERS EXPECTED TO CALVE

January 1, 1,000 Head (Calculated)



Planned and impulse heifer breeding numbers

The January Cattle report from USDA has included the inventory of beef replacement heifers since 1920. The latest USDA Cattle report pegged the Jan. 1 beef replacement heifer inventory at 4.86 million head, down 1.4% year over year.

However, the latest report revised the initial estimates of the 2023 inventory from 5.16 million head down to 4.93 million head. This means that the 2024 beef replacement heifer total is down 11.4% from 2022. With the revisions, the 2023 inventory, along with the 2024 beef replacement heifer inventory, are below 5 million head and are the smallest Jan. 1 inventories since 1950.

Since 2001, USDA has provided an additional breakdown of beef replacement heifers into the number expected to calve (bred heifers) and the residual of heifers retained for breeding. This emphasizes that the replacement heifer total consists of heifers from two different calf crops: coming two-year-olds that will calve this year and yearling heifers, from last year, in development for breeding (Figure 1).

> *Is this increase in impulse heifer breeding the first sign of industry attempts to begin herd expansion? Maybe ... although it is not clear yet.*

The average number of beef heifers calving since 2001 has been 3.46 million head, an average of 11.1% of the beef cow inventory. This compares to the average herd culling rate (beef cow slaughter as a percentage of the beef cow inventory) of 10% over the same period. Year by year, the relative percentages of heifers calving and cow culling determines whether the beef cow herd increases or decreases. The inventory of bred heifers for 2024 is the smallest in data available since 2001.

Yearling heifers saved for breeding this year become bred heifers next year. However, on average, the calculated yearling heifer total is only 64% of the bred heifer total for the following year. The remaining 36% of bred heifers is assumed to be impromptu heifer breeding in the previous year in which producers decide to breed heifers not previously identified as replacement heifers.

These extra heifers bred are presumed to be sourced from the other heifer inventory. This means that planned heifer breeding accounts for roughly two-thirds of heifers calving with the remaining one-third the result of impulse (unplanned) heifer breeding (Figure 2).

Not surprisingly, impulse heifer breeding is more variable than planned heifer breeding. Statistically, impulse heifer breeding is about 80% more variable than planned heifer breeding. Therefore, impulse heifer breeding plays an important role in the dynamics of cattle cycles. For example, in the cyclical herd expansion from 2014 to 2019, impulse heifer breeding was the first to expand, increasing in 2014 by three times more than planned heifer breeding.

As herd expansion slowed near the 2019 peak, impulse heifer breeding decrease first and more rapidly compared to planned heifer breeding. The data available now allows a more detailed accounting of heifer breeding and quantifies commonly described behavior when producers decide to increase or decrease heifer breeding in an impromptu manner.

The 2024 inventory of bred heifers is down 1.9% year over year and consists of yearling heifers bred last year, which was down 15.1% year over year and a 27.3% increase in extra heifers bred (impulse breeding). In other words, while planned heifer breeding decreased to a record low level (data back to 2001), impulse breeding of heifers increased sharply in 2023, nearly offsetting the decrease in planned heifer breeding.

Is this increase in impulse heifer breeding the first sign of industry attempts to begin herd expansion? Maybe ... although it is not clear yet. When both planned and unplanned heifer breeding are increasing it will be more certain what producers' intentions are. It will depend on evolving producer expectations as well as weather that will determine what is possible in 2024 and beyond. Stay tuned. — **Derrell S. Peel, Oklahoma State University Extension livestock marketing specialist**

Undergraduates awarded Henry C. Gardiner scholarships

Gardiner Angus Ranch
(L-R): Katrina Turner, Lauren Thompson, Preston Dunn, August Hulse, Grace Fike, Kiley Andersen and Mark Gardiner.

Henry C. Gardiner scholarships have been awarded to elite undergraduates since 2012. This year, 33 applicants competed for six scholarships. The applicants represent diverse interests throughout animal science and industry, production agriculture and the beef industry.

The applicants are academically elite undergraduates enrolled at Kansas State (K-State) Univeristy planning to continue careers in agriculture. In addition to written applications, applicants compete in an intense, in-person interview with a panel of K-State faculty and industry leaders. Academic excellence, work ethic, community service, written and verbal communication skills and future goals are considered.

> *"It is extremely gratifying to interact with every scholarship applicant each year and quickly recognize the power and presence these students possess to make a generational impact on our industry."*
>
> *—Mark Gardiner*

The 2024-25 Henry C. Gardiner Scholars are Lauren Thompson, Woodville, WI; Grace Fike, Westmoreland, KS; Preston Dunn, Saint John, KS; August Hulse, Culver, KS; Katrina Turner, Derby, KS; and Kiley Andersen, Sebastopol, CA.

When asked to comment on the Henry C. Gardiner scholarship process, Mark Gardiner said, "The entire agriculture spectrum has evolved from 'Mom and Pop' operations passed down from one generation to the next, to complex systems that require fiscal and financial aptitude, and communication skills combined with the capacity to make science based, informed decisions to be sustainable.

"It is extremely gratifying to interact with every scholarship applicant each year and quickly recognize the power and presence these students possess to make a generational impact on our industry. Henry Gardiner's passion for learning is well documented. He would be elated at the curiosity, academic achievements, and enthusiasm exhibited by today's scholarship recipients."

The Henry C. Gardiner Scholarship is made possible through the generous contributions of Gardiner customers, friends and family continuing the legacy of Henry Gardiner. To date, 54 undergraduate students have received $250,500 in scholarships.

Gardiner Angus Ranch is a family-owned ranching operation that produces registered and commercial Angus cattle. The original ranch was homesteaded near Ashland, KS, in 1885 by Henry Gardiner's grandfather. Today, the ranch encompasses more than 48,000 acres. The Gardiner operation sells approximately 2,500 bulls and 2,000 registered and commercial females each year. One hundred percent of the sale offering each year is the result of artificial insemination or embryo transfer.

Gardiner Angus Ranch is a founding member of U.S. Premium Beef, the producer-owned limited liability corporation with minority ownership in National Beef, the nation's fourth largest beef processing company. By providing access to a proven, value-added processing system through GAR delivery rights, Gardiner Angus Ranch customers have received more than $14.25 million in premiums and dividends.

More information can be found at www.gardinerangus.com. — **Gardiner Angus Ranch**

Triangle H Ranch is committed to quality

Triangle H Ranch, located in Finney County, KS, is a multi-generation cow-calf, feedlot and farming operation owned by the Hands family. Sam Hands, who heads the family's feedlot operation, met with the Grant Company to discuss his side of the business and the Simmental breed's influence. The Stand Strong feature can be viewed on YouTube.

The Hands family found their way to southwestern Kansas as cowboys and homesteaders. The Triangle H business was officially established in 1974 as a partnership between Fielding Hands and his sons, Sam, Greg, and Cedric. The family farm started generations before the current business, and Sam Hands got his official start in the cattle business when he was just nine years old, purchasing a calf.

Today, the farming and cattle operation complement one another and have allowed the family to diversify. Crops include corn, grain sorghum, soybeans, wheat, and alfalfa and the cow herd is used to clean up crop residue.

Hands leads the cow-calf, stocker, and finishing programs, continuing his lifelong passion for the industry. His daughter, Marisa Kleysteuber, has also stepped in as a managing partner, becoming the fifth generation to farm and raise cattle.

ASA

Simmental genetics were added to the Angus cow herd to complement traits and add performance.

After learning to AI in the 1960s, Hands became an early adopter of this technology. This work exposed him to many breeds and facets of the industry. Hands recalls, "We decided that with the development of the feeding industry, feeder cattle were more fitting for our operation. We brought in Hereford bulls for cleanup, and were AIing with Charolais and Angus at first. As continental breeds started becoming more available we tested all of the different breeds, and we really liked what we were seeing with Simmental."

The Hands family settled on a SimAngus cross, and have since balanced that cross to maintain performance in the feedlot and on the rail. "We've followed the numbers and done our own research, and can say that heterosis works. We get a little more ribeye, a little leaner carcass, a bit more quality, and looking at bottom line net profit, SimAngus works extremely well for us through the feed yard," Hands says. SimAngus females have also worked well in the cow herd. "When we brought the Simmental cross females into the herd the conception rates got a little better."

Hands explains that Simmental has paired well with Angus for a number of reasons, from the volume of data available to performance traits. "The thing we wanted to pick up from Simmental was heterosis, and also the dual-purpose traits which provide good maternal and terminal performance. Now we've made extensive progress in the Angus breed for size and production efficiency, so there's just a nice balance with Simmental for getting carcass traits and feedlot performance."

The All Purpose Index ($API) is a valuable tool for Hands. "The reason I use it is because we are going to keep females back in the herd. Feedlot performance and carcass traits are very important to us, but at the same time we're going to keep females back and look at frame size, milk, longevity, and fertility," he explains. "It helps bring traits together and makes life a little simpler."

In the late 1990s Triangle H began marketing cattle through US Premium Beef, which provides full carcass data for each animal. This has been valuable for Hands' customers. "One of the reasons they feed with us is that they (our customers) want data back on their cattle to see if there are changes they need to make," Hands explains.

Triangle H has become a trusted feeder thanks to their dedication to data and unwavering commitment to making sure cattle are well-cared-for. "Our natural niche right now is that we have a good ongoing list of clientele who want to feed cattle here and get data back."

Helping customers improve has strengthened these customer relationships. "We've developed an index here that incorporates feedlot performance along with carcass traits so they can evaluate their cattle and hopefully do a better job each year. We've also worked with them to develop a health program that helps them reach those end objectives," Hands says.

Southwest Kansas has been a good home for the Hands family operation. "Animals seem to get along well here in our environment," Hands explains. "If it is hot they cool off, and if it's cold we're dry so the humidity doesn't cause a problem with that, typically."

Hands enjoys each aspect of the cattle business, from calving to feeding. "It's neat to see mother cows bringing life into the world and watching the whole process," he says. "They raise a calf up to weaning size, and it's neat to watch those calves out on wheat pasture, and then as they transition at the feedlot level to become a finished product. Then, we get that carcass data back and to see those end results altogether is very rewarding."

An appreciation for the process and desire to continue improving drives the Triangle H program. Hands concludes, "I look at our ruminant animals and the amazing job they do of taking raw resources and turning them into a very highly desired, digestible protein with extreme quality that is sought after by consumers across the world. With today's cost of production we just have to keep working at being efficient. People have the means and are willing to pay for higher quality so why not go for it." — **Lilly Platts, ASA editor**

Why use EPDs and indices to make decisions for bull sales?

Until the development of EPDs, most purchasing decisions of bulls were based on phenotypic measurements and features as an estimate to how that bull's calves would perform. Phenotypes (P) are the combination of genetics (G) and environment (E); (P = G + E).

There are components of genetics that aren't heritable, such as the unique combination of genes that results in hybrid vigor, or inbreeding suppression. These gene combinations will influence an animal's own phenotype, but won't be passed down to their offspring.

EPD estimates only the heritable genetic component of that animal. So why would you want to make a purchase decision just on the genetic merit?

For an example, let's look at the relationship between an animal's own birth weight and the portion of that phenotype related to their genetic merit for birth weight. If you were to take two bulls whose EPD for birth weight were -1 and -4 pounds, and you breed your herd to both of these bulls, in a hypothetical situation where the calves have the same environment, the equation is P = G.

As a result, the second bull's calves would on average be 3 lbs. lighter at birth, all other factors equal, which may reduce the number of problematic births caused by dystocia.

But that single birth weight you see in the catalog for that bull is influenced by his environment and his unique gene combinations, which aren't heritable. Was he treated differently than other bulls, or weighed later or as soon as he hit the ground?

EPD predictions use his own birth weight record as well as records from his half-sibs, parents, and any relevant genetic information—such as breed, birth year, comparisons to contemporaries, genomics and pedigree—to better estimate his true potential and prevent over- or under-estimation based off of just his own birth weight record.

Similarly, we are able to improve the accuracy of the estimate of his potential by using records from his progeny. However, it takes time for his calves to hit the ground, and a risk is being taken by using him for breeding when the accuracy is lower. Enter genomic testing.

By identifying markers in his DNA that play major parts in his performance, we can incorporate information that is equivalent to already having~20 calves on the ground. This provides an increase in accuracy that may alleviate some risk from breeding a bull to your cows and not getting what you want.

These influences on phenotypes hold true for all heritable traits, which leaves a lot to consider when buying a bull. In order to make it simpler, we have indices such as the All Purpose Index ($API) and Terminal Index ($TI) that take into account many EPDs and combine them in one value expressed in dollars of profitability predictions among bulls.

These indices estimate profitability when a percentage of daughters remain in the herd as replacements and other calves are terminal ($API), or a strictly terminal system ($TI), depending on what your operation needs to meet its goals.

Adding a DNA test to your decision is like knowing:

- 25+ calving ease scores.
- 22 birth weights.
- 25+ yearling weights.
- Stayability/productivity records on 15 daughters.
- 6 carcass weights.
- 10 marbling scores.
- 8 ribeye measurements.

All this from a test you can complete before you wean the calf.

As more information is known on an animal, the accuracy of the EPD increases (see ASA DNA chart). Information includes an animal's own records; family information, such as parents and siblings and their records; genomics; and eventually progeny. Genomic information for BW adds an equivalent of 22 progeny records.

For example, if a bull had a BW EPD of 2 lbs. and an accuracy (Acc) value of 0.15, the associated possible change (PC) is ± 2.5 lbs. Therefore, we would expect his "true" BW EPD to be between -0.5 and 4.5 lbs. (2.0 ± 2.5) 68% of the time.

If genomics are added, the accuracy might increase to 0.45 and the possible change will drop to 1.7, leaving a range for his "true" BW EPD between 0.3 and 3.7.

This bull sale season, study the numbers to ensure you select the heritable portion of what you see and pay attention to economic indexes to select for profitability of future genetics. — **Chad Russell, Ph.D. student with Dr Spangler at the University of Nebraska–Lincoln**

$All Purpose Index ($API)

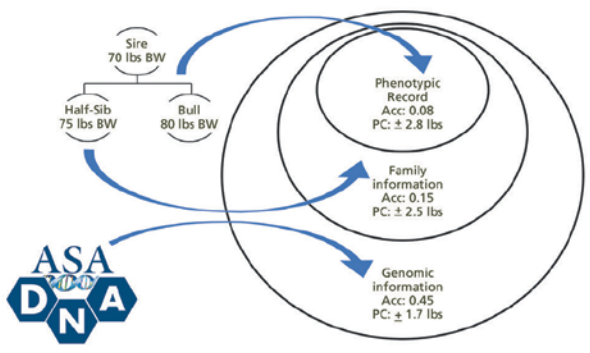
Predicts cow herd profitability using valuable traits like cow longevity (STAY) and calving ease while keeping pressure on terminal traits.

Compare the profit potential of two Simmental bulls using $API

1. Bull A's $API = $120 and Bull B's $API = $180
2. Breeding 25 females/year
3. Used for 5 years

Bull	1 $API		2 # Females per year		3 # years using the bull		Profit Potential
A	$120	X	25	X	5	=	$15,000
B	$180	X	25	X	5	=	$22,500
					Difference	=	$7,500

Just like an EPD, compare two bulls to see the expected difference in profit. Bull B is likely to result in direct revenue and expense savings of an additional $7,500 over the course of five years. Plug in your numbers for 1, 2, and 3 to compare your potential earnings.



ASA elects new leadership at meeting

The American Simmental Association (ASA) held its 56th Annual Meeting the first week of January.

The Annual Meeting highlighted each committee's minutes for the previous year, and reflected on the successes of 2023, including the continued expansion of ASA research projects, data collection, funds raised by the American Simmental-Simbrah Foundation (ASF), the breed's presence at national events in 2023, and more. Each committee's full report will be available in print and online in the March 2024 edition of the Register magazine.

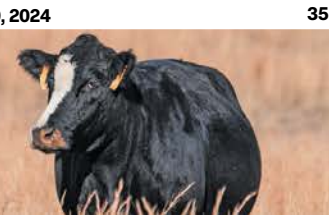
During the Annual Meeting, new and re-elected members of the ASA Board of Trustees were formally seated.

In the South Central Region, Greg Walthall, Windsor, MO, was elected for a first term; and Victor Guerra, Linn, TX, was elected for a second term. In the North Central Region, Tim Clark, Turtle Lake, ND, was elected for a second term.

In the Eastern Region, Mark Smith, Picayune, MS, was elected for a first term; and Chris Ivie, Summertown, TN, was elected for a second term. In the Western Region, Chad Cook, Walsh, CO, was elected for a second term.

New members of the Executive Committee were also officially seated during the Annual Meeting. Chris Ivie will serve as the chairman of the ASA Board of Trustees. Victor Guerra will serve as vice-chairman, and Scott Trennepohl will serve as treasurer. Position #1 and #2 were filled by Chad Cook and Ryan Thorson, respectively. Doug Parke, Paris, KY, will serve as the immediate past chairman. — **ASA**

SIMMENTAL
FEATURED SECTION



A look back at Fall Focus 2023

Fall Focus 2023 took us to the Centennial State. Simmental enthusiasts, representing 28 states and three provinces, attended the successful gathering that was held in Denver, CO, from Aug. 25-29.

The event featured a "Ranch Gathering," live cattle demonstrations, a day-long educational symposium, a celebration of the Golden Book and Lifetime Promoter recipients, interactive committee meetings and a productive board meeting. The Colorado Simmental Association (CSA) co-hosted the event and did a phenomenal job showcasing topics that not only provided a snapshot of issues important to Colorado's beef industry, but that were arguably just as important to everyone else in attendance. A huge thank you to everyone with the CSA for their help organizing and hosting.

Friday morning began with Simbrah committee, SimSpecialist and ASA publication board meetings. The SimSpecialists in attendance strategized, with some of the more experienced specialists offering insight into what has worked well for them in the past. This team is unlike any other in the industry. Giving presentations at field days or answering questions at sales is no big deal to these individuals, many of whom are retired Extension professionals and researchers.

The CSA's hard work shined brightly at the Ranch Gathering that they co-hosted with the Colorado Cattlemen's Association (CCA) on Friday afternoon. The event was held at the National Western's HW Hutchison Family Stockyards Event Center. If you haven't been to the grounds since they've been updated, it's worth the trip.

At the event center, cattle were on display from Bridle Bit Simmentals, Hill Brothers Livestock and Reflected R Ranch. Willie Altenberg, Jake Owen, and Ben Elliot also brought cattle for the demonstrations—a special thank you goes out to those individuals for bringing cattle in from miles away.

A feet and leg scoring demonstration was given by ASA geneticist Lane Giess, and a pulmonary arterial pressure (PAP) test demonstration was performed by Tim Holt, DVM, of Colorado State University (CSU). The welcome rain shower deterred most from visiting the CSU Spur campus; however, the impressive nature of the campus was evident by even the craftsmanship of the Vida, Terra and Hydro buildings.

The evening concluded with a tri-tip dinner prepared by several CCA members and surprise recognition of Susan Russell, who was given a custom-made brand necklace in honor of her 25th year as the CSA secretary/treasurer. Congratulations, Susan.

Saturday's Educational Symposium took on a new format. Dr. Jackie Atkins set the tone for the day, challenging attendees to "Walk Around the Cylinder" and consider multiple perspectives before drawing conclusions. The remainder of the morning was spent taking a deep dive into bovine heart health, focusing on bovine congestive heart failure (BCHF) and PAP.

Given 20 minutes to hit the high points in "Ted Talk" style presentations, five of the topic's experts shared their knowledge. The high-caliber speaker lineup consisted of Holt; Dr. Brian Vander Ley, DVM, of University of Nebraska–Lincoln; Dr. Mark Enns of CSU; Dr. Scott Speidel of CSU; and Dr. Justin Buchanan of J.R. Simplot Company.

Why was it important to spend all morning listening to these presenters? BCHF and PAP are perhaps two of the most pressing and economically relevant issues within the beef industry today. With the frequency of heart failure increasing in feedlot cattle, finding a solution is a top priority for many university and industry researchers, who are working diligently to identify BCHF risk factors and genetic correlations.

Bovine pulmonary hypertension is essentially critically high blood pressure in the vessels that run from the heart into the lungs. Related to PAP, it can be triggered at high elevations when lower oxygen levels are available, causing high-mountain disease and then brisket disease when body fluid pools and causes swelling in the brisket area.

Hence, the importance of PAP testing, genetics, and thoughtful breeding programs is crucial, especially to those raising cattle in high-elevation areas or providing genetics to individuals raising cattle in that setting.

Lane Giess moderated the monumental panel discussion with the heart health speakers. The audience got one-and-a-half hours to ask the experts any and all questions. Not a second was spared, with many questioning management implications, the role of genetics, and tangible steps that can be taken now to decrease the likelihood of the issues.

After an informative state of the beef industry update from Billy Schmitz with Five Rivers Cattle Feeding, Steve Wooten took the stage to discuss his experience as the chair of the U.S. Roundtable for Sustainable Beef (USRSB). USRSB holds a proactive mindset and believes it's best to bring everyone from the beef supply chain to the table when discussing sustainability. A couple of Wooten's comments resonated with the audience, such as the need to keep working lands in working hands, and the importance of being involved in the conversation to help ensure success for the next generation and future stewards.

Chip Kemp moderated the sustainability panel discussion that followed and included Wooten, Dr. Sara Place of CSU, Dr. Scott Howard of Meyer Natural Foods, and Dr. John Crowley of AbacusBio. The panelists tactfully navigated what can be a sensitive topic, recognizing that while keeping sustainability measures in mind is essential, we still have to produce food.

Furthermore, all panelists communicated their ideas for what genetics producers should be selecting for, Crowley and Place agreeing that traits like stayability and fertility are key, with Howard adding the importance of cutability and quality.

Saturday evening was a time for visiting, networking and celebration. The Golden Book Award recipients, 2023 Lifetime Promoter, retiring ASA trustees and outgoing chairman were recognized. Well-deserving Golden Book recipients Neil Martin, Jim Largess and Cynthia Conner were in attendance with their families to accept their awards.

Sunday morning started with a Town Hall meeting, which gave Fall Focus attendees the opportunity to ask questions of board trustees and staff members. These exchanges sparked discussions that continued into the committee meetings. — **Callie Cooley, ASA communications coordinator**

ASA geneticist Lane Giess gave a feet and leg scoring demonstration.

$API and $TI: A bull buyer's best friends

An index is not an EPD, but rather a measure of the difference in profitability for the designed scenario. Understanding each index can help you move the profitability of your cow herd in a positive direction. Lane Giess, ASA geneticist, answers some common questions about index selection.

Bull selection impacts a cow herd for many years, often long after the bull has left an operation. You might spend months leading up to sale season combing through catalogs, studying numbers, making phone calls, and putting in the time to make sure your selection will live up to your operation's needs. Or, you may have a simple approach and assess bulls the day-of with your eye on a few select criteria.


ASA

Either way, the bull you want is going to walk through the sale ring or across your screen, and you will have a small window of time to balance the cost of the bull and the criteria he meets (or doesn't). Even if you have a longstanding relationship with a seedstock breeder or a buyer who picks out bulls for you, simplifying the process is beneficial.

Indices take into account many EPD and combine them into one value, expressed in dollars of profitability prediction among bulls. ASA publishes two indices: $API (All Purpose Index), and $TI (Terminal Index). $API estimates profitability when a percentage of daughters remain in the herd as replacements. $TI estimates terminal profitability.

All-Purpose Index ($API): Dollars per cow exposed under an all-purpose-sire scenario.

Terminal Index ($TI): Evaluates sires for use on mature Angus cows with all offspring put on feed and sold grade and yield.

Interpreting $API and $TI: Just as with EPD, zero in on the unit difference between bulls. (As described above, index units are in dollars per cow exposed.) The difference can be used to determine how much a bull is worth compared to another. Put another way, how much you can pay for one bull compared to another.

For example, when buying an all-purpose-type sire, you can quickly figure a bull scoring +100 for $API is worth an extra $6,000 over a +50 bull if both are exposed to 30 cows over 4 years ($50 diff. x 30 hd. x 4 yr.= $6,000). Percentile is required to determine where a bull's index value ranks him relative to other bulls in the breed.

Why is it important to have $API and $TI? Why is there value in simplifying things?

Giess: An economic index such as $API or $TI greatly improves a breeder's ability to select for genetics associated with commercial profitability. Without the use of an index that accounts for all traits, selecting for balanced genetic improvement is too burdensome. Commercial cattlemen can use a single value to simplify their selection criteria and use $API or $TI as a starting point in their decision-making process.

How should each index be used?

Giess: Seedstock breeders have the responsibility of improving the genetics that influence the entire commercial beef industry. Because of this, the goal of commercially minded breeders should be to develop genetics that are commercially viable and profitable. An economic index helps with this goal.

Instead of breeders selecting animals based on individual traits related to a single aspect of an operation's profitability (i.e., Weaning Weight, Calving Ease, etc.), an economic index combines all economically relevant traits and weights their importance in a single value—expressed in dollars.

If your goal as a breeder is to develop genetics with the intention of retaining females and being more maternally focused, then the All Purpose Index ($API) is the one you should use. This index focuses on the whole-life-cycle and accounts for traits such as maternal calving ease, docility, fertility, and, perhaps most importantly, female longevity. As a whole-life-cycle index, the $API still needs to account for carcass performance since many of the daughters will contribute to the terminal genetics of their progeny.

On the flip side, if your goal as a breeder is to develop genetics with the sole purpose of maximizing terminal profitability, then the Terminal Index ($TI) is what you should use. The $TI was designed for breeding systems with the assumption that all females were purchased or developed separately. A terminal mating system places greater emphasis on carcass performance, growth, and direct calving ease.

It's important to note that all seedstock breeding programs are different and have commercial customers with varying goals, so the best suggestion would be to use the $API and $TI as a starting point and then focus on other traits to develop a breeding program.

How can we trust that an index will do what it's supposed to?

Giess: Indices are designed to be robust in their function. And while every operation is unique, the beef industry's profit centers are fairly constant across all regions. The commercial industry needs females that stay in the herd until profitable, don't exceed reasonable nutrition requirements, produce and wean a heavy calf that is born healthy, grows well and kills with excellent terminal merit.

This is obviously a simplification of the nuances of the beef industry, but over all this is what an $API index is designed to accomplish. And while breeders can tailor their breeding programs to fill niches, an index will guide a breeding program in the direction of commercial profitability.

Do the inputs for $API and $TI change over time?

Giess: The economic inputs for $API and $TI largely stay the same across years. They are designed to be robust in market fluctuations and not inappropriately discount an animal's genetic worth if corn prices rise suddenly and then drop back to normal a few months later. Since breeding decisions happen at a fixed point in time, you want an index that can withstand those market fluctuations.

How long can it take for a producer to see a measurable change?

Giess: Unlike single trait selection, realizing genetic progress from economic-index-based selection will inevitably be slower. Since $API uses a balanced approach to weighting every economically relevant trait, you will not be using the extreme outliers for a single trait. For traits with low heritability, this noticeable difference will be even slower. This process can take years with long generation intervals, and the need to keep females around until profitable.

Do you have any tips for producers wanting to utilize $API or $TI?

Giess: One thing that is important to note about indices is the reliability of the prediction. We do not calculate an "accuracy" for indices since they are aggregated from many EPD, each with their own accuracy. If comparing a highly proven sire's index to that of a yearling bull, the reliability of the younger bull's index is inevitably lower.

Also, it's extremely important to remember that an index allows superiority in one trait to outweigh poor genetic merit in a range of other traits. This means if a sire is exceptional for only one of the key traits in an index and poor for the others, he may appear more favorable than bulls with average performance across all traits.

— Lilly Platts, ASA editor

Bovine congestive heart failure in the feedyard

The increase in bovine congestive heart failure (BCHF) in finished cattle has added a new challenge for many feeders, including identifying affected cattle in time, and getting to the root of the issue.

Dr. Randall Raymond, director of research and veterinary services for Simplot Land and Livestock, and David Trowbridge, manager of Gregory Operations, have a depth of knowledge and experience in the industry. Simplot is an integrated operation, taking their own cattle from conception to the feedlot, as well as many acquired cattle from across the western U.S., while Gregory Feedlots feeds a range of cattle from a variety of backgrounds. These two operations provide an insightful look at managing the issue in two very different systems.

Simplot Land and Livestock, headquartered in southern Idaho, is a diversified business including 30,000 mother cows, multiple feedyards with a capacity of 200,000, in addition to a large packing operation. After observing an increase in BCHF throughout their operation and seeing catastrophic death loss in other areas—like the 2022 heatwave in Kansas that caused hundreds of deaths per day in feedlots—Raymond and his colleagues at Simplot set out to research the issue.

The continuity of the business has allowed Simplot to closely track cattle from conception to the rail. To date, they have evaluated around 95,000 animals affected by heart failure, and obtained DNA samples and genotypes on each. From this data, they have identified a promising solution.

"We've developed a genetic prediction model for heart failure," Raymond shares. "The outcome is very robust. The heritability is in the 0.35 range, and the accuracy is between 0.8 and 0.85."

A test has been developed, which started with a methodology established by the USDA identifying four DNA markers important to heart failure.

"As we pulled that into a broader population, one of those four markers identified by the USDA was validated in this larger population and we found thousands of other markers. It's what we call a polygenic trait. We don't know how many genes, but it's probably dozens, and we know it's thousands of markers that are predictive," Raymond explains.

The test was recently licensed through Neogen and is just coming onto the market.

Heart failure risk is now a consideration throughout the Simplot system. "It's really a multi-tiered approach," Raymond shares. "From the cow-calf standpoint, we're trying to reduce feedyard incidents by screening all of our bulls that are going on commercial cows for this trait. We're not going to put another bull in that battery that hasn't been screened and assessed for heart failure risk."

Raymond emphasizes that this genomic test is not the same as pulmonary arterial pressure (PAP) testing. "The association between PAP EPD and PAP scores is relatively low. We believe they are two separate traits. We think that this heart failure model we've developed encompasses multiple pathophysiologic pathways to heart failure.

"We believe elevated PAP is just a clinical sign of right-sided heart failure. It's a heart that's in the process of failing. This genetic test is really independent of PAP, and broader. We think that using PAP and this genetic prediction model together should have some benefit, and there could be some synergies to using both the traits in a multi-pronged approach toward selection, but they're very separate."

At Gregory Feedlots, Taybor, IA, cattle are coming in from a variety of operations. Trowbridge shares, "We have between 60 and 70 different customers each year, from 20 different states. Our customers' genetics are varied, from straight Angus to very mixed breeds."

Trowbridge attributes the issue to a combination of genetics and overfeeding. "We're taking cattle to a weight that's past their maximum growth, and just putting on fat. I don't think that's the whole reason, but with the combination of genetics and overfeeding is where we are seeing it," Trowbridge explains.

Gregory Feedlots does not see many deaths from BCHF, which Trowbridge attributes to their specific sorting procedure. "We're sorting them at finish time. We'll go into a pen of one hundred head and pull every animal we think has between five and six-tenths of an inch of backfat."

While Trowbridge and his colleagues are sorting cattle for processing based on individual evaluation, some systems involve sorting cattle when they come into the feedyard based on frame and muscle score. Largely, these pens are sent to slaughter as a whole, which means animals that finish faster may stay in the feedlot longer, leading to an increased risk of heart failure.

Over-fattening is top of mind, but Trowbridge emphasizes that cattle are still pushed to finish quickly, which is industry standard. "We are very aggressive implanters, and very aggressive feeders," he says.

Simplot has been employing a similar sorting approach for some time. "We've trained our pen riders to go into groups of cattle that are at high risk, or during high-risk times of the year, to identify some specific clinical signs. Then we remove them from the pen and ship them," Raymond shares. "That's allowed us to do a couple things. One is that we get the cattle to a harvest facility before they die. Two, it's given us the opportunity to see a lot of hearts that are in end-stage heart failure, but they made it to the plant."

Raymond and Trowbridge both acknowledge that simply feeding cattle at a slower rate, or to be less fat, doesn't fit within the industry or make financial sense.

Additionally, high performance isn't a straightforward indicator of risk. "We do know it (BCHF) is highly connected to performance. Animals that have a propensity for high carcass weight and high average daily gain tend to also be at high risk for this syndrome. However, there are animals with that same profile that are also low-risk," he explains.

Beyond the financial implications of finished cattle dying in the feedyard, animal welfare is a priority. Raymond explains that animals with heart failure don't respond to treatment—often showing signs of lethargy, respiratory distress, and occasionally swelling—which can leave those caring for them feeling helpless.

"We've tried a lot of things. The only option is to get them removed from the system and harvested prior to becoming more clinical or dying. That's been our most effective tool to date with handling the cattle that are in the pipeline: training our pen riders to identify those animals early," Raymond expands.

Animal welfare matters to the consumer as well. "Letting this condition perpetuate itself is going to be really challenging from an animal welfare standpoint," Raymond says.

Heat stress can be the breaking point for an animal at risk for heart failure. The huge losses from heat stress in recent years made international news, and placed a significant amount of scrutiny on the industry.

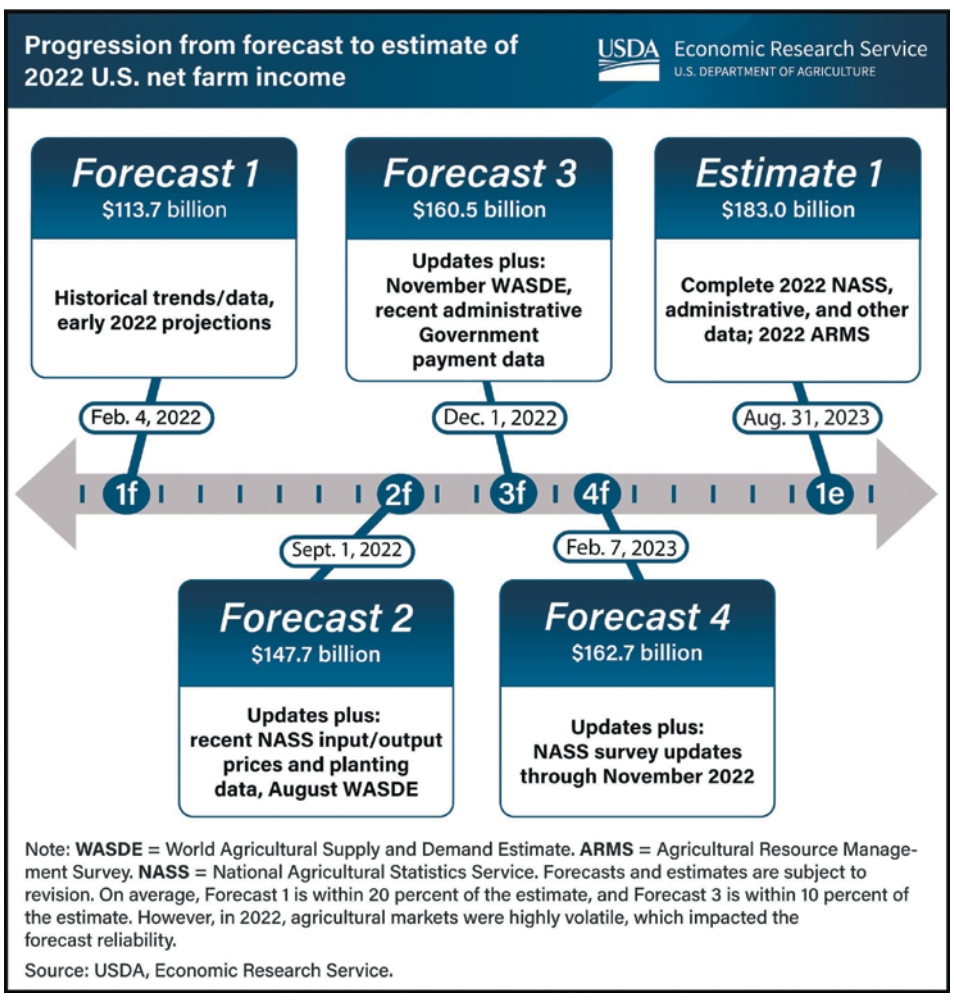
"From a global industry perspective, if we don't work on this in a really coordinated fashion we're going to see a lot more of that. We're going to have really high scrutiny on animal welfare, and I think we should be scrutinizing ourselves about if we're doing the right thing."

The feedyard presents a number of challenges beyond BCHF, and minimizing other risk factors sets cattle up for success. Trowbridge explains that a good health protocol and genetics are vital. "Calves should be weaned for at least 60 days, and on a good nutrition and vaccine program," he shares. "I believe we can't make the cattle any better than they are, so genetics is another huge thing."

While BCHF has the largest financial implications for feedyards, Raymond believes the entire industry should be committed to improvement. "I think seedstock producers should be really worried about it," he shares. "Without testing cattle and being judicious we are going to continue selecting cattle that generate these high-risk animals because it's somewhat unknown without doing genetic testing," Raymond concludes. — **Lilly Platts, ASA editor**

How a farm income forecast progresses

The USDA's Economic Research Service (ERS) routinely forecasts U.S. farm sector financial health. For each calendar year, there are four forecasts of profitability measures before ERS releases an official estimate.



Note: **WASDE** = World Agricultural Supply and Demand Estimate. **ARMS** = Agricultural Resource Management Survey. **NASS** = National Agricultural Statistics Service. Forecasts and estimates are subject to revision. On average, Forecast 1 is within 20 percent of the estimate, and Forecast 3 is within 10 percent of the estimate. However, in 2022, agricultural markets were highly volatile, which impacted the forecast reliability.

Source: USDA, Economic Research Service.

The first forecast for each year occurs in February and is partially based on historical data and trends since planting intentions of crops such as corn and soybeans are unknown. It also incorporates early commodity price and production projections from USDA and projections by other entities, such as energy price forecasts by the Energy Information Administration.

In 2022, for instance, the initial forecast of 2022 farm income occurred on Feb. 4, 2022, and the forecast projected net farm income of $113.7 billion. The second forecast occurs in late August/early September and is based on observed data from the production cycle, such as input and output price information and planting areas with related output projections.

The second forecast also includes revised projections of direct government payments and insurance indemnities and projections from USDA's World Agricultural Supply and Demand Estimates report. For calendar year 2022, Forecast 2 occurred on Sept. 1, 2022, and the forecast projected net farm income of $147.7 billion.

The third data release, in late November/early December, further refines the forecast based on the most recent data and projections, including additional administrative data on direct government payments. The last forecast is made in February of the following year. It is still a forecast because the data are still being collected and refined.

The first official estimate of 2022 farm income (of $183.0 billion) was published on Aug. 31, 2023, and completed a 19-month cycle. That data release incorporated the first information available from the USDA's most recent annual Agricultural Resource Management Survey, which improves analysis of production expenses.

State-level farm income data for the calendar year are released for the first time as a part of the estimates. Adjustments to the U.S. and state-level estimates may be made in future data releases, but they are typically small. On Feb. 7, 2024, ERS released the first forecast of 2024 and the last forecast of 2023 U.S. farm sector financial health. The first estimates of calendar year 2023 will be published on Sept. 5, 2024, together with Forecast 2 for calendar year 2024. — **USDA ERS**

What farmers need to know about new tax reporting requirement

Farmers who operate as a corporation or an LLC or a limited partnership will need to pay close attention to a law passed at the beginning of 2021 implementing new reporting requirements in 2024.

The Corporate Transparency Act, created to curb illicit financial transactions and money laundering, requires most registered companies to complete "Beneficial Ownership Information Reports," in 2024. Congress tasked the Financial Crimes Enforcement Network (FinCEN), a bureau of the U.S. Treasury, to establish and maintain a national registry of beneficial owners.

In these online reports, companies must provide information about the company, as well as information about each beneficial owner. Beneficial owners include anyone who owns at least 25% of the company, as well as anyone who has "substantial control" over the business.

For each beneficial owner, the company must report the name, date of birth, home address and identifying number of an acceptable proof of identification, such as a driver's license. They must also upload an image of the identification document.

Companies that existed before the start of 2024 have until Jan. 1, 2025, to file the form, while companies created or registered in 2024 will have 90 days after their creation to file. Any company that has already filed its first report will have just 30 days to report any updates, such as a new beneficial owner or a change in address.

"This is a new law that FinCEN is enforcing this year and we need to get the word out to farmers and others who have registered companies," said Charles Brown, a farm management specialist with Iowa State University (ISU) Extension and Outreach. "Existing farm companies have a whole year before the deadline, but we are encouraging people to file sooner rather than later, so they don't risk fines and penalties for being late."

What to know

Kristine Tidgren, director of the Center for Agricultural Law and Taxation at ISU, recently wrote an article to help explain the new law and what farmers are required to do.

"There are many important parts to this law, including who exactly must file a report, and what they must include," said Tidgren. "This is a federal law and our goal is to help people understand what they are required to do."

The Corporate Transparency Act was part of the Anti-Money Laundering Act of 2020 in the National Defense Authorization Act for Fiscal Year 2021, according to Tidgren. The law requires the FinCEN to establish and maintain a national registry of beneficial owners of entities that are otherwise not subject to disclosure regulations.

Who must file?

The rule identifies two types of companies that must report: domestic and foreign. Domestic reporting companies are entities created by the filing of a document with a secretary of state or any similar office under the law of a state or Indian tribe.

This generally means that LLCs (including single-member LLCs), corporations and limited partnerships are required to file reports if they are not otherwise exempted from the reporting requirement. The law's 23 exemptions from reporting generally apply only to large entities that already disclose owner information in other ways. Most tax-exempt entities, however, are not required to file reports, regardless of size.

How to file

Companies and entities that are required to file the report must do so online, at boiefiling.fincen.gov/fileboir.

If a required entity fails to file on time, penalties can be as high as $500 for each day in violation, with criminal penalties up to $10,000 and possible imprisonment.

Brown said he understands the frustration some farmers might feel about having to file another form, but he said it's a federal requirement.

"As a farm management specialist, my goal is to help people understand the things they must do, and this is one of those," he said. "The law was decided by Congress, and now that it is in effect, I want to educate Iowans so they can comply." — **ISU Extension**

Hong Kong event promotes American barbecue

Following a three-year hiatus, the return of a Texas-style barbecue was a celebratory event for Hong Kong's foodservice sector, which has struggled to recover from the COVID-19 pandemic.

The 14th edition of the Great American Texas Barbecue attracted 850 chefs, merchandisers, restaurant owners, distributors and U.S. suppliers, who turned out to sample American barbecue, reconnect with industry partners and learn new menu ideas and concepts.

Brisket, ribs and sausages were expertly cooked and smoked while new items such as the steamship round were also featured.

Held at Hong Kong's Kowloon Cricket Club, the event was hosted by the U.S. Agricultural Trade Office in Hong Kong, Texas Beef Council and U.S. Meat Export Federation (USMEF).

A diverse group of partners demonstrated high-quality U.S. beef and pork in a variety of cuisines at the event while live country music and dancers added to the festive atmosphere.

"The road to recovery for the foodservice sector has been a long one as businesses attempt to adapt to new and ongoing challenges," said USMEF Vice President of Asia Pacific Jihae Yang.

"The return of this event was a celebration of the industry's resilience," Yang continued.

Jennifer Clever, director of the Agricultural Trade Office in Hong Kong, delivered welcoming remarks while native Texan and Consul General Gregory May discussed Texas barbecue culture and presented awards to industry professionals.

"This event has always been popular with foodservice professionals and in bringing it back, we demonstrated our industry's commitment to serving Hong Kong," added Yang.

Funding support was provided by the Beef Checkoff Program, Texas Beef Council, the National Pork Board and USDA's Market Access Program. — **USMEF**

USMEF

Brisket, ribs and sausages were cooked and smoked for attendees at the Great American Texas BBQ in Hong Kong while new items such as the steamship round (pictured) were also featured.

Dicamba: Removing a tool from the toolbox

Growers across the U.S. have just been thrown a curveball, as a federal court in Arizona vacated registration of dicamba formulations specific for use on dicamba-tolerant soybeans (including Xtendimax, Engenia and Tavium), finding that the Environmental Protection Agency (EPA) failed to meet regulatory requirements. Dicamba is still an effective weed control option, particularly when it comes to Palmer amaranth.

The ruling will put growers of the second largest crop in Nebraska, soybeans, at a management, if not a financial challenge.

"It is taking a 'tool out of the toolbox,' as we (agronomists) like to say," said Dr. Randy Lloyd, Nebraska Extension research facility coordinator at West Central Research, Education and Extension Center. "This will put growers in a bind, as most have purchased their soybean seed, which they can still use, but won't be able to get the full benefits of the technology."

Many growers favor genetically modified soybeans engineered to withstand glyphosate and/or glufosinate and dicamba. This allows over-the-top dicamba use in soybeans and helps control Palmer amaranth since the weed can grow anytime throughout the summer and disperse thousands of seeds.

"You can walk through a field in a fall, where a young two or three-inch Palmer is growing, and it will have a seed head with hundreds of seeds," Lloyd said.

"It's a tough time to make a decision this late in the game," he said. "Growers can try to find other soybean seeds, but quantities will be limited."

A grower's ability to control weeds constantly challenges the farm economy. Weeds can easily cause a soybean yield to be reduced by 20 to 30 bushels or more, which is a huge yield and financial loss. They also drop hundreds of thousands of seed which could take many years for that field to regain what it lost."

What implications does this hold for soybean producers in Nebraska? The answer remains uncertain for now.

"We must await the response from the EPA and adjust our course accordingly," Lloyd said, and he's hopeful the EPA will appeal the ruling. If that doesn't happen, it will put pressure on already limited alternative postemergence herbicide applications.

As growers move forward with purchasing seed, they should also prepare for alternative weed management strategies if the dicamba label remains vacated.

"One viable option is implementing a preemergence program with extended residual activity. Such a program would effectively decrease weed pressure, facilitating suitable terrain for follow-up applications," said Dr. Milos Zaric, Nebraska Extension assistant professor at West Central Research, Education and Extension Center. "When considering follow-up applications, it is crucial to ensure timely and precise execution, targeting small weeds (2-3 inches) and populations for postemergence treatment and utilizing increased spray volume."

Reliance, he said, may shift towards contact-type products available formulations based on glufosinate (essential to ensure the presence of the glufosinate-trait listed on the seed bag) or one of the PPO-inhibiting herbicides (acifluorfen, fomesafen, lactofen, or others classified under WSSA Group 14) for broadleaf weed control.

If a grower is unsure of a program selection, they can refer to the 2024 Guide for Weed, Disease, and Insect Management in Nebraska (EC-130) at tinyurl.com/23varutt. Growers are also encouraged to contact their local University of Nebraska research and extension specialist for options and help in building alternative weed management plans.

For questions, please reach out to Randy Lloyd at randy.lloyd@unl.edu or Milos Zaric at mzaric2@unl.edu. — **Chabella Guzman, Panhandle Research, Extension and Education Center**

Finks named 2024 Stockman of the Year

Galen and Lori Fink will be recognized Feb. 29 as the 2024 Stockman of the Year. The award is presented annually by the Livestock & Meat Industry Council (LMIC) at the annual Stockmen's Dinner that kicks off at 6 p.m. at the Stanley Stout Center. Register for the event by Feb. 22.

Galen and Lori (Hagenbuch) grew up on eastern Kansas farms, learning the importance of sound decisions in cattle judging, business and leadership. The couple met at Kansas State (K-State) University and married in 1975. Galen spent 14 years managing the K-State Purebred Beef Unit while Lori served as secretary-fieldman of the Kansas Angus Association (KAA) from 1979-90.

K-State Research and Extension

Galen and Lori Fink

In 1990, after having their daughter, Megan, they took a leap of faith and left their day jobs to put all their effort into the program that was creating cattle that worked for a growing base of commercial customers.

All along they've chosen to invest in their cows first. Land came later, and still today they own very little equipment.

Despite lacking their own land, the couple, driven by a passion for innovation, utilized technology, including embryo transfer and artificial insemination, to build the Fink Beef Genetics program in a non-traditional manner. Starting by placing embryos in other people's cows, they pioneered an approach, becoming the first in the U.S. to develop such a program.

Through the years, the Fink Beef Genetics operation flourished, currently headquartered in Randolph, KS, on land purchased in 2006. The couple's unique thinking and dedication has led to a program that implants more than 800 embryos annually, hosts two sales a year and offers more than 600 bulls annually through private treaty.

In 1999, Charolais was introduced to the program, providing customers with additional breeding options. In 2017, Fink Beef Genetics expanded their offerings by introducing Copperhead bulls—a blend of Charolais and Red Angus—aiming to provide even more choices for their customers.

Committed to customer service, Finks have worked with U.S. Premium Beef, Angus and Charolais GeneNet, Meyer Natural Angus as well as developed several feedlot partnerships to help customers get premiums.

Galen and Lori have both served as leaders in numerous industry organizations and Fink Beef Genetics has garnered numerous awards, including being named 2000 BIF Seedstock Producer of the Year, 2001 KSU Alumni and the 2008 Certified Angus Beef LLC Seedstock Commitment to Excellence Award.

They were honored as the 2011 American International Charolais Association Producer of the Year. Galen was presented with the BIF Pioneer Award in 2021.

To learn more about Galen and Lori Fink and their leadership in the industry, register for the Stockmen's Dinner by Feb. 22. The cost to attend is $50/person. Registration is available online at asi.ksu.edu/stockmensdinner or by contacting 785-532-1267.

Plan to stay the night in Manhattan and attend the 111th Annual K-State Cattlemen's Day on March 1. Hosted in Weber Hall, the day will start at 8 a.m. with refreshments, educational exhibits and a commercial trade show.

The program begins at 10 a.m. Lunch will be provided. Visit KSUBeef.org for a detailed schedule and registration information. Early registration deadline for Cattlemen's Day is Feb. 23.

Following Cattlemen's Day, the 47th Annual Legacy Sale will begin at 4 p.m. at the Stanley Stout Center. The offering includes 43 bulls, 10 fall-bred females and 18 commercial heifers. To learn more about this year's offering and to request a sale catalog, visit asi.ksu.edu/legacysale. — **K-State Research and Extension**

NMSU receives $1.2M for climate change research

New Mexico State University (NMSU) has been awarded $1.2 million for a collaborative research project with Auburn University and the University of Delaware. This is a four-year climate change research collaboration, awarded by the National Science Foundation's $56 million investment in climate change research.

The research teams will conduct collaborative research to develop agricultural practices that will reduce greenhouse gas emissions, improve soil health and enhance crop resilience to climate extremes, such as droughts. The project will also train graduate and undergraduate students and research scientists in climate change research.

"This is another example of Agricultural Experiment Station researchers leading research in timely and critical subjects for New Mexico's and the nation's agriculture," said Rolando Flores Galarza, dean of the NMSU College of Agricultural, Consumer and Environmental Sciences.

NMSU's research team includes Rajan Ghimire, associate professor and cropping systems agronomist at NMSU's Agricultural Science Center at Clovis; Shannon Norris-Parish, agricultural and Extension education assistant professor; and Jinfa Zhang, plant and environmental sciences professor.

"We will develop crop management practices to improve soil health and resilience in New Mexico and investigate how to minimize the environmental footprint of crop production in the southwest," said Ghimire, who is leading NMSU's research team. "We will train students through science and our Extension education, and farmers will be directly engaged so they learn how to cope with weather variability and climate change because it is becoming more prevalent in our region."

Cotton and peanuts are the two main crops studied in this project. Cotton and sorghum will be tested in New Mexico on this project. Ghimire will focus on the research at the Agricultural Science Center at Clovis, which will experiment with biochar, a charcoal-like substance used to rejuvenate soil health, and compost in laboratory, greenhouse and field settings. They will measure different soil properties to determine soil carbon storage, soil biology and nutrient cycling in response to biochar and/or compost application.

In Las Cruces, Zhang will conduct greenhouse and field experiments to develop a genetic strategy to improve climate resiliency by growing and testing 400 different lines of cotton to find a trait that works for drought resistance. Norris-Parish will be developing educational efforts and will work with farmers to survey which adaptation measures they use to cope with climate change.

"We will work with Auburn University researchers in developing and improving cropping system models to simulate what will happen if frequency and intensity of extreme events increases," Ghimire said. "Knowing which crop varieties work better and what soil management practices to follow will better prepare New Mexico farmers for future climate challenges, and this helps NMSU be at the forefront of dealing with that issue." — **NMSU Extension**

Leadership Farm Bureau class announced for 2024

Nine agricultural professionals have been chosen for the California Farm Bureau's 2024 Leadership Farm Bureau program.

Leadership Farm Bureau class members will participate in a 10-month educational and development initiative that prepares them for leadership roles in Farm Bureau and agriculture. The program includes 250 hours of instruction, with seminars on key issues affecting California farmers, ranchers and agricultural businesses.

Program participants will learn about government and legislation, media and communications, public speaking and team building. They will also attend lobbying sessions in Sacramento and Washington, D.C., and meet with lawmakers and administrative and regulatory officials.

Members of the Leadership Farm Bureau class include:

• Ben Abatti III of Imperial County, a third-generation farmer who grows alfalfa, sugar beets, wheat and other forage crops in Holtville.

• Alex Arroyo of Monterey County, general manager of King City Transplanting in the Salinas Valley.

• Tanya Brouse of Butte County, a program coordinator for the Butte County Farm Bureau who also works with the Butte Agriculture Foundation.

• Sy Honig of Sutter County, a third-generation farmer, owner of Honig Farms and a pest control advisor.

• Jackie Kennedy of Glenn County, founder of Knaughty Farms Olive Oil and office manager for a family farm growing olives, rice and walnuts.

• James Moller of Shasta County, a seventh-generation cattle rancher and a manager for Driscoll's Inc. focusing on strawberry nursery production.

• Rachel Nettleton of Kern County, executive director of the Kern County Farm Bureau and a marketing and communications professional.

• Harsimerdip "Harry" Sidhu of Sutter County, a vice president of First Northern Bank in Yuba City who grew up on his family's fruit and nut farm.

• Danielle Vietti of Tulare County, a vice president at AgWest Farm Credit in Tulare who specializes in dairy financing. — **California Farm Bureau Federation**

It's never too early to vaccinate your horses

The early arrival of West Nile Virus (WNV) to South Carolina resulted in the Jan. 22 euthanasia of a horse in Charleston County. The horse was not vaccinated and had no pasture mates.

According to Clemson University animal health officials, the mosquito-borne disease is about two months ahead of schedule, brought on by a wet, warm winter favored by insects, and should serve as a reminder to owners to vaccinate their animals.

"Because of the climate and increased number of mosquitoes to start the year, South Carolina is particularly susceptible to mosquito-borne diseases such as WNV. That's why it is so important for owners of horses to ensure they work with a veterinary professional to follow a clearcut vaccine schedule for their animals," said Michael Neault, South Carolina state veterinarian, and director of Clemson Livestock Poultry Health.

The diagnosis was made after blood samples were submitted to the National Veterinary Services Laboratories, and the disease was confirmed on Feb. 1.

While horse owners can take measures such as turning them in at dawn and dusk and using spray repellents, vaccination is the only surefire way to protect their horses from eastern equine encephalitis (EEE), WNV and rabies.

Borne by mosquitoes, EEE and WNV have a very high mortality rate in infected, unvaccinated horses—between 30-40% for WNV and 90% for EEE. However, widespread vaccination has kept the number of cases comparatively low in South Carolina compared to nearby states.

Likewise, mosquito control is an important precaution. Both EEE and WNV are maintained in nature through a cycle involving the freshwater swamp mosquito, Culiseta melanura, commonly known as the black-tailed mosquito.

The EEE and WNV viruses are fast-acting. Symptoms of both diseases usually develop from two to five days after exposure and include neurologic difficulties such as stumbling, circling, head pressing, depression or apprehension, weakness of legs, partial paralysis, the inability to stand, muscle twitching or death.

In addition to EEE and WNV, other neurologic diseases, including rabies and EHV-1, can infect horses. Any livestock that display neurologic symptoms—stumbling, circling, head pressing, depression or apprehension—must be reported to the state veterinarian at 803-788-2260 within 48 hours, according to state law.

A list of reportable diseases, along with other resources, is published on the Livestock Poultry Health website at tinyurl.com/mj3uemk6. — **Clemson University Extension**

Free workshops on farm, personal health

Kansas State (K-State) University and several state partners will host a series of three free workshops to support farm families, from managing their soil to forming succession plans and increasing their personal health and wellness.

Margit Kaltenekker, an agriculture agent with K-State Research and Extension's office in Douglas County, said the workshop—Whole Farm Health—will be held on successive Tuesdays at the Worden Cornerstone Church near Baldwin City.

There is no cost to attend, but online registration is requested. The list of workshops includes:

• Feb. 20: Transition to Soil Health and Beating the Drought.

• Feb. 27: Planning for Profit.

• March 5: Lighten the Load on the Road to Wellness.

Each session will be held from 5:30 p.m. to 8:30 p.m. The workshops have been put together by Extension staff in Douglas, Johnson and Shawnee counties; conservation districts in Douglas and Miami counties; Watershed Restoration and Protection Strategy coordinators; the Kansas Center for Sustainable Agriculture; and the Kansas Alliance for Wetlands and Streams.

"After three years of drought, regenerating soil health by applying soil health principles will increase its water-holding capacity, nutrient cycling and resilience before the next drought," Kaltenekker said.

She added that cover crops "can be a profitable way to restore ecosystem function in soils, and provide extra forage for livestock."

The March 5 session addresses what Kaltenekker says is a "silent crisis" in rural communities.

"It's not in the news everyday, but there continues to be a suicide crisis affecting our rural areas like never before," she said. "The last workshop is geared to provide resources to learn about suicide prevention and holistic health strategies that can help lighten the load on the road to wellness."

A video outlining resources available to Kansas farmers is available online.

Kaltenekker said she hopes all three workshops provide "an opportunity to meet with other producers to exchange ideas and troubleshoot challenges."

Epsilon Sigma Phi, the Kansas Soil Health Alliance and Green Cover Seed are sponsoring the workshops.

More information on the Whole Farm Health series is available at tinyurl.com/whole-farm-health-2024, or by contacting Kaltenekker at 785-843-7058 or makaltenekker@ksu.edu. — **K-State Research and Extension**

Lallemand awards scholarships to rising stars in agriculture

The Lallemand Forward Scholarship Committee awarded five scholarships to up-and-coming students and established scholars within agriculture. This is the ninth year scholarships were awarded—investing a total of $123,500 since the fund was established.

"Reviewing the outstanding candidates for Forward scholarships is a highlight for our team each year," said Erin Carter, marketing manager for Lallemand Animal Nutrition, North America. "These scholarships represent our confidence in the future of these students. We're looking forward to seeing them in this industry for years to come."

The five students receiving scholarships are:

• Lindsey Tarby, who is pursuing a degree in veterinary medicine from Texas A&M University.

• Chloe Hagen, a doctoral student at Iowa State University studying animal science.

• Madison Kindberg, a graduate student at the University of California, Davis pursuing a master's degree in animal biology.

• Dina Graves, a senior at Clemson University pursuing a degree in food science.

• Kylie Konyn, a junior at the University of Wisconsin–Madison working towards a degree in dairy science.

Lindsey Tarby — DVM candidate recipient.

Tarby is a third-year student in the veterinary medicine program at Texas A&M University. She was introduced to livestock through 4-H and FFA while showing goats, lambs and cattle in Princeton, TX. Following her passion for animal science, Tarby completed her bachelor's degree from Texas A&M University in 2020.

While pursuing her undergraduate degree, she participated in a two-week study abroad in New Zealand through the university animal science department. In addition, she completed an internship at the Gardiner Angus Ranch in Ashland, KS. Tarby returned to Kansas for an internship at the Gardiner Veterinary Center prior to starting veterinary school. After graduation, Tarby plans to join a rural practice focusing on helping beef cattle producers maximize their animals' health and productivity.

> "These scholarships represent our confidence in the future of these students. We're looking forward to seeing them in this industry for years to come."
> —Erin Carter

Chloe Hagen — Ph.D. candidate recipient.

As a second-year doctoral student, Hagen is eager to put her scientific knowledge to the test in an on-farm setting. She has multiple experiences in both academic and commercial environments to help achieve her goal. Hagen completed undergraduate research training with the Applied Swine Nutrition group at Iowa State University.

Plus, she completed internships at Christensen Farms, Carthage System and Cargill. Originally from Stockton, IA, Hagen had no personal experience with swine before arriving at Iowa State University. She enjoyed physiology and swine science courses enough to pursue an advanced degree and career. After graduation, Hagen hopes to serve as a technical nutritionist and enhance the sustainability of pork operations.

Madison Kindberg — M.S. candidate recipient.

Kindberg is a first-generation college graduate and cattlewoman. She grew up around livestock in Escalon, CA, and volunteered with a large-animal veterinarian. In high school, she began her own commercial cow-calf operation that has expanded into cattle and hay production.

As an undergraduate at the University of California, Davis, she completed internships with the National Cattlemen's Beef Association and the California Cattlemen's Association. Kindberg is currently a master's degree candidate in the Animal Biology Graduate Group with Frank Mitloehner, Ph.D., at the University of California, Davis.

Her applied research will aid the beef industry in meeting the demands for quality, sustainably raised beef. Kindberg plans to continue her education while pursuing a doctoral degree in the Mitloehner Lab.

Dina Graves — B.S. candidate recipient.

Originally from Glenview, IL, Graves is pursuing a degree in food science with a minor in microbiology from Clemson University. She is passionate about creating nutritious and delicious foods that are sustainable and affordable for everyone.

Graves' interest in agriculture originates from watching her grandparents, who are grain farmers in the Midwest. After graduation, she plans to work at Fairlife, LLC, on the research and development team where she is excited to contribute directly to the food system.

Kylie Konyn — B.S. candidate recipient.

Konyn's family dairy is the last remaining farm in San Diego, CA. She grew up caring for calves, assisting with veterinary checks, performing embryo transfers and other hands-on tasks. This background led her to pursue a degree in dairy science with a minor in ag business and science communications from the University of Wisconsin-Madison.

In just two years, Konyn worked as an undergraduate research assistant for Heather White, Ph.D., and interned with Cargill Animal Nutrition in 2022. After graduation, Konyn plans to pursue a doctorate in dairy cattle nutrition. — **Lallemand Animal Nutrition**

Society for Range Management gathers for 77th Annual Meeting

Over 1,600 range enthusiasts varying from agency personnel to students and ranch managers to industry professionals experienced "Change on the Range" during the Society for Range Management's (SRM) 77th Annual Meeting in Sparks, NV.

"It was a great meeting with over 1,600 attendees from a variety of rangeland professions," said newly installed SRM President Dr. Karen Hickman. "This meeting certainly provided an excellent opportunity for attendees, both in person and virtual, to learn more about the science and art of rangeland management. And as with previous SRM annual meetings, it's always great to catch up with old friends and meet new ones."

Thanks to the presenting sponsors, the U.S. Forest Service (USFS), USDA's Natural Resources Conservation Service (NRCS) and the Bureau of Land Management (BLM), the conference featured nearly 80 sessions and many sessions saw capacity crowds with attendees joining both in person and over 200 tuning in virtually via live stream.

Truly embodying this year's theme of "Change on the Range" sessions covered some of the most current rangeland science and technology like virtual fencing, sustainable rangeland restoration, and carbon markets and renewable energy on rangelands. It also fostered the next generation of rangeland enthusiasts who will impact change through student networking events and a job fair in which three major land management agencies, including USFS, NRCS and BLM and a dozen private and public companies found potential future employees.

When attendees weren't partaking in sessions or networking events, there were over 100 poster presentations to stroll through along with an extensive trade show featuring more than 50 vendors. Several tours drew participants out of The Nugget to see firsthand a wild horse and burro management area and explore the operation at Frey Ranches. Social tours were a bonus for some hoping to see Reno city highlights, breweries and the historic Virginia City Ghost tour.

Wrapping up the four-day event was the Annual Business Meeting where new officers were installed and the much-anticipated Awards Ceremony where 13 professionals were honored and student competition winners were announced.

Marking their dedication and service to rangeland science and management were the most prestigious awards with the presentation of the Frederic G. Renner Award to Dr. Karen Launchbaugh, the W.R. Chapline Land Stewardship Award to Bob McCann and the W.R. Chapline Research Award to Dr. Brandon Bestelmeyer.

The student competitions saw winners from across the globe as well with universities from Canada and Mexico scoring top placements, along with several from the U.S.

2023 SRM President Dr. Barry Perryman of Nevada passed the gavel to Dr. Karen Hickman of Oklahoma, and Dr. Jeff Goodwin of Texas became the first vice president while Dr. John Walker, also of Texas, filled the role of second vice president.

After their term of service to the board of directors, Delane Attcity of New Mexico and John Taylor from Brisbane, Australia, were replaced by new directors Dr. Mark Thorne of Hawaii and Dr. Kevin Sedivec of North Dakota.

"It is an honor to serve as the SRM president for 2024 and I look forward to maintaining the momentum we have in addressing several issues within the rangeland profession. One of my priorities will be to work with our fellow land management agencies to identify opportunities for us to increase the number of graduates meeting the requirements for rangeland management specialists," Hickman said. "Also, I look forward to championing the UN's International Year of Rangelands and Pastoralists coming up in 2026. My goal is for 'rangelands' to be a household phrase," Hickman concluded.

Next February, SRM will convene in Spokane, WA, for their 78th Annual Meeting. — **SRM**

Bioenergy sorghum wax enhances crop's resilience

Already valued for its resilience, biomass production and ability to improve soil fertility, bioenergy sorghum has another attribute that researchers have recently characterized: high wax production.

Plant waxes are useful across a wide scope of commercial products like cosmetics, inks and candles, and as edible food coatings and biofuels. Bioenergy sorghum's production of high wax loads—around 90-180 pounds per acre—might give growers additional profit.

Scientists within Texas A&M AgriLife Research and the Texas A&M College of Agriculture and Life Sciences are learning more about the plant's wax. Robert Chemelewski, a doctoral student in the Department of Biochemistry and Biophysics, carried out research with supervision from John Mullet, Ph.D., University Distinguished Professor and Perry L. Adkisson Chair in Agricultural Biology. Their study was recently published in the journal Frontiers in Plant Science.

Importance of wax for resilience

Sorghum, a drought- and heat-tolerant grass, is typically used for production of grain, forage and biomass for bioenergy. Bioenergy sorghum grows very long stems that can reach up to 18 feet tall.

The plant's resilience allows it to be productive even when grown on marginal land or with little water. This resilience is due in part to the plant's high wax production, which helps limit water loss and prevent the plant from absorbing too much heat by reflecting solar radiation.

"Bioenergy sorghum spent 50 million years surviving in Africa, in a very hot, dry environment," Mullet said. "To survive drought at high radiation loads, the sorghum adapted by secreting a lot of wax on the surfaces of leaves and stems."

Additionally, researchers suspect that the wax increases pest resistance.

"If you mutate plants to remove waxes, they become much more susceptible to insects," Mullet said. "Insects crawling up the stem encounter a very thick wax layer. So, we think wax helps protect the stem from insect damage."

Sorghum's wax composition

In their recent study, the researchers sought to identify key information about sorghum wax, such as the amounts on different plant surfaces and its chemical composition.

"Wax is made up of long-chain hydrocarbons," Mullet said. "We found bioenergy sorghum wax is enriched with aldehydes, a type of organic compound, which may contribute to the plant's pest defense."

Next, the team examined the biochemical processes involved in bioenergy sorghum's wax production. They found the wax biosynthesis genes by using prior knowledge obtained from other plants.

Once those were identified, they confirmed that the genes were expressed in the outer layer of the stem, where the wax is synthesized and deposited. The team then analyzed the activation process of wax biosynthesis during stem development, allowing them to see which genes are involved in regulation.

"By the end, we were able to see how the whole pathway fit together," Mullet said.

Looking ahead to commercialization down the line, growers of bioenergy sorghum may be able to see a financial benefit from the plant's wax in addition to income the crop generates as a feedstock for biofuels and biopower generation.

"We're always looking for ways we can extract a value-added product from the plant prior to converting it into biofuel," Mullet said. "When harvested biomass goes to a biorefinery, you could remove the wax early in the process for later purification and sale as a valuable coproduct."

Mullet said the research team is unsure about the market potential of bioenergy sorghum wax, but now that they know how much the plant produces, they hope to investigate commercial viability.

"We keep learning things about bioenergy sorghum that are just amazing," he said. "The wax could have a lot of uses. Finding out how it can be removed and recovered economically is the next step in this type of research." — **Texas A&M AgriLife Extension**

Winning animal health hacks help farmers, vets

Members of the Quick Stitch team said they definitely felt "jostled" after meeting with mentors during the 2024 Animal Health Hackathon. But that uncomfortable feeling ended up being pretty helpful, as they refined their idea and took home the event's "Most Novel and Innovative Veterinary Health Solution" award.

The Feb. 2-4 event, hosted by the Cornell Center for Veterinary Business and Entrepreneurship, Entrepreneurship at Cornell and the Cornell University College of Veterinary Medicine, included 150 students from across campus who formed 30 teams to find innovative solutions to problems related to animal health.

The Quick Stitch team—Sunita Devi MEng, Ana Grandgeorge MEng, Caroline Murabito and Xin Rou (Natalie) Tan, DVM—developed an idea that replaces sutures for veterinarians, inspired by existing solutions in human medicine.

"The stakeholders we were targeting pivoted after conversations with mentors, who made us think about reaching out to emergency surgery practices instead," Tan said. "That seemed to make more sense in terms of how we were planning our product and the device."

Other winning teams included:

• Most Market Ready: Fem5, a device using electrical conductivity to detect subclinical mastitis in cows before they are milked. Team members included Angelique Miane MEng, Yaa Achampong MEng, Bhavishya Agarwal MEng, Danielle Falcon MBA and Lauren Meyer, DVM.

• Most Relevant and Impactful Animal Health Solution: Team Zero, with members Chenhan Feng, Ph.D.; Sanjeev Wasti, Ph.D.; Subash Bhandari, Ph.D.; and Zhengfei Li, MS. The team is working on a device that pairs an inexpensive microscope with a mobile tool to help farmers in rural areas around the world diagnose common pathogens.

This is the 8th year for the Animal Health Hackathon, which also drew 56 mentors to campus, including veterinarians, industry representatives, researchers, venture capitalists and entrepreneurs.

The event began with team formation sessions on Jan. 31 and Feb. 1, giving students the chance to form teams before Friday night's kick-off. Students spent Saturday working with mentors and other resources before Sunday morning's pitches. Nine teams were chosen as finalists for the project showcase Sunday afternoon.

"The Cornell Animal Health Hackathon is all about the creation and coming together of entrepreneurial interdisciplinary networks from across all of the Cornell campus to ideate solutions to animal health problems," said Jorge L. Colón, DVM, MBA, associate professor of practice at the Cornell University College of Veterinary Medicine. "The event allows students to experience and get exposure to the breadth of opportunities available within the animal space."

Emily Aston, Ph.D., director of business development for Zoetis, offered a keynote address during the event's kickoff Friday night. She also participated as a mentor to teams throughout the rest of the weekend.

"I've always considered myself to be a non-traditional veterinarian. When I was in vet school, I could have used more messaging around the fact that there are so many ways we can take our careers," she said. "All of these mentors have made several changes in their careers at some point. I wanted to normalize change and pivoting."

Aston said there are many opportunities in veterinary medicine to be more interdisciplinary rather than specialized. She encouraged students to try different opportunities to see what seems to be the best fit for them.

"Think creatively outside the box about how you can apply your knowledge and skills," she said. "And by networking, students can get an idea of who they could potentially be one day." — **Kathy Hovis, Cornell University**

Abigail Younger

Members of the winning "Quick Stitch" team stand with Dean Lorin Warnick, right, of the Cornell University College of Veterinary Medicine.

NMCGA Scholarship winners awarded at convention

In December, at the Joint Stockmen's Convention, four deserving students were awarded with scholarships.

Two $1,000 Purina Mills scholarships were awarded to New Mexico students who are members of the New Mexico Cattle Growers' Association (NMCGA), the New Mexico Junior Cattle Growers' Association or the child of an NMCGA member. Graduating high school seniors, and college freshmen, sophomores and juniors in good academic standing were eligible to apply for the award.

In addition, the Young Cattlemen's Leadership Committee (YCLC) and the Allied Industries Committee also presented two $500 scholarships. One to a high school senior and one to a continuing college student.

Ayden Madrid received a Purina Mills Scholarship of $1,000. Ayden Madrid grew up on his family ranch in Bernalillo, NM. He is currently a freshman at Fort Lewis College in Durango, CO, studying environmental conservation and land management with a minor in business administration. He is the starting fullback for the Fort Lewis College football team while participating in many leadership positions and clubs throughout the college.

Throughout high school, he received many accolades related to football including District Player of the Year, All Metro Defensive Player of the Year and broke the New Mexico state record for most tackles in a season at 173 tackles. He is also on the Dean's List with a 3.3 GPA at Fort Lewis.

Callie Bennett was the recipient of the other Purina Mills Scholarship of $1,000. Callie is a 19-year-old first year student at Connor's State College in Warner, OK. Growing up in Artesia, NM, Callie was very involved in 4-H and FFA showing cattle, competing in parliamentary procedure, public speaking, meats evaluation, wool evaluation and livestock evaluation.

While growing up on her family ranch, she says she learned how to work hard and be a good steward of the land. At Connor's State, Callie is a member of the livestock judging team. In high school, she was a member of the National Honor Society, NMCGA, Yucca Cowbelles, NM Club Calf Association and many other groups.

Two scholarship winners were awarded the YCLC and Allied Industry Committee scholarships.

"The Allied Industries Committee was honored to partner with the Young Cattleman's Leadership Committee to award one $500 scholarship at the Joint Stockmen's Convention. We are thankful for our committee members that make these opportunities possible for our youth," said Macy McDonald, Allied Industry Committee co-chair.

Hattie Dobrinski who was awarded a $500 scholarship from the YCLC/Allied Industry Committee. Hattie is from Silver City, NM, where she attended Calvary Christian Academy. In high school she was the valedictorian and graduated summa cum laude with a 4.0 GPA. She was active in Student Council, volleyball and 4-H. Currently, Hattie is a freshman at Fort Hays State University in Hays, KS, where she is studying agribusiness with a minor in animal science.

Remington Hunt received the YCLC/Allied Industry Committee Scholarship of $500. Remington lives and works on his family's ranch near Broadview, NM. Remington placed second at the 2022 National FFA Convention with his speech entitled "The Carbon Revolution: Opening up New Markets for Ranchers."

Remington loves telling people about the benefits of beef. He is a New Mexico Beef Ambassador, the National Honor Society president, FFA chapter sentinel and an athlete on the basketball and track teams at Texico High School. In FFA, he also competes in horticulture produce, agriculture issues and prepared public speaking. He is the sixth generation on his family ranch.

Congratulations to all these young people on outstanding achievements. — **NMCGA**

Climate, irrigation influence salinity of Colorado River waters

A newly published study from the U.S. Geological Survey (USGS) explains how salinity in the Upper Colorado River Basin has changed over the past few decades and shows how climate, irrigation and the flow of groundwater contribute to salinity in the watershed. The study correlates overall salinity declines in the river basin since the 1980s with a transition from wet to dry conditions.

High salinity can limit water available for agriculture, drinking water, aquatic life and infrastructure, with significant impacts to the economy and human health. Salt occurs naturally in water, but salt loads are influenced by irrigated agriculture, geology, land cover, land-use practices and precipitation.

Salinity can exacerbate corrosion of lead pipes and increase lead levels in drinking water and mobilize other metals or pollutants as well. High salinity levels in the Colorado River reduce agricultural yield, damage infrastructure and are estimated to cause $348 million per year in damage to infrastructure and crop production.

"This study shows us how irrigation and climate work together to influence salts going into streams," said USGS hydrologist Olivia Miller, lead author on the study. "Future climate change in the Southwest, combined with changes in irrigation, may affect stream water quality, but we don't yet understand how these interactions will play out, so our next step is developing a model to test scenarios of future climate change."

Wet periods have higher salinity loads because increased runoff from rain and melting snow and increased groundwater movement bring more salts into rivers. In contrast, drier periods have lower salinity loads. Irrigation also plays an important role, contributing salts to the river more efficiently than any other source.

"Salt loading to the Upper Colorado River and tributaries is a significant economic and environmental concern which limits the utility of the Colorado River and creates economic damages to downstream water users," said Don A. Barnett, executive director, Colorado River Basin Salinity Control Forum.

For the new study, USGS scientists created a dynamic model that simulates the flow of water and salts throughout the whole Upper Colorado Basin between 1986 and 2017, allowing them to estimate salinity in the river and identify its sources for every year over that time.

The study confirmed previous findings that salts come primarily from groundwater (66-82%), with smaller portions attributed to runoff and springs. The salts in groundwater may initially come from infiltration of irrigation water, but once dissolved in groundwater, tracing the source is difficult.

Groundwater is stored for long periods underground, meaning that there can be a time lag between when the salts enter the groundwater and when they end up in the river. As a result, while salinity management efforts focused on surface runoff processes may produce small results in the short term, larger impacts may take longer to work through the groundwater system.

"The Upper Colorado River Basin States are taking actions to reduce salinity in the Colorado River for the benefit of the 40 million people who use the River's water," said Paul Kehmeier, salinity program coordinator, Colorado Department of Agriculture. "This study helps clarify that the sources of salt vary over time and it will help inform managers on strategies to continue improving the quality of water in the Basin." — **USGS**

Registration open for invasive grass workshop

The Institute for Managing Annual Grasses Invading Natural Ecosystems (IMAGINE) is hosting a free virtual workshop April 3, from 9 a.m. to 4 p.m. MDT. The workshop, titled "Defending and Growing the Core by Breaking the Cycle of Annual Grass Invasion," will cover the current invasive grass landscape in the West and give participants strategies and resources for proactive management.

"This workshop sets the stage for success with strategy and tools anchored to high value sagebrush areas," says Lindy Garner, invasive species coordinator with the U.S. Fish and Wildlife Service (USFWS). Its focus is on protecting and expanding intact native plant communities rather than starting with the most degraded areas.

Speakers represent a breadth of expertise from Wyoming, Colorado, Montana, Nevada and Oregon. They include IMAGINE Director Brian Mealor, Jaycie Arndt, Chad Boyd, Erika Fitzpatrick, Reese Irvine, Jeremy Maestas, Paul Meiman, Andrew Olsen, Petar Simic, Claire Visconti and others. To participate in the event, attendees must register online at www.invasivegrasses.com before March 27.

The Invasive Annual Grass Tech Transfer Partnership is led by University of Wyoming's (UW) IMAGINE with collaboration from core partners in land management organizations across the West, including the USDA Natural Resources Conservation Service (NRCS) Working Lands for Wildlife, USFWS, Bureau of Land Management, Intermountain West Joint Venture, National Park Service, Montana State University and University of Nevada-Reno Extension.

Jeremy Maestas, national sagebrush ecosystem specialist with the Natural Resources Conservation Service, says, "This event is timely and desperately needed to get communities talking about how they can be part of the solution to annual grass invasion. We have a generational opportunity to act now to save the sagebrush biome before it's too late."

The free workshop has only 1,000 slots, but recordings will be available after the event. IMAGINE also plans to host additional workshops.

Future workshops will offer hands-on experience in invasive annual grass management plans, including examples of the results of different management treatments. Other workshops will help local working groups examine their specific landscape and define their core native plant ecosystems.

"I find meeting with local working groups and seeing them use a combination of the tools that we have provided them as well bringing their own local knowledge to start creating a management plan is very rewarding," comments Claire Visconti, outreach program coordinator for IMAGINE.

For questions, contact Claire Visconti at cviscont@uwyo.edu. — **UW Extension**

Upcoming survey to aid Kansas agriculture

In every business or industry, accidents happen. Sometimes those mishaps cost money only, but in many cases, it can mean serious injury or even death.

Tawnie Larson, a project consultant for the Kansas Agriculture Safety and Health program at Kansas State (K-State) University, said the most common agriculture injuries are musculoskeletal due to falls, slips or trips; exposure to harmful substances or environments; over-exerting oneself; and sprains, strains and tears.

Larson said that in Kansas, fatalities are most common among those age 45 and older, and are usually related to machinery and transportation—including tractor rollovers, interacting with livestock and confined spaces. Those younger are also impacted; In 2020, eight Kansas youth under age 16 died in agriculture-related accidents, and 141 agricultural workers between ages 20 and 44 died on the job.

The sobering statistics on agricultural accidents are part of the motivation for an upcoming survey of Kansas farmers and ranchers, to be administered by the Kansas Agriculture Safety and Health program.

"There hasn't been an agriculture safety program for producers and the industry in Kansas for several years," Larson said. "As we begin building a program, we want to find out the concerns of those that work in the industry."

> "There hasn't been an agriculture safety program for producers and the industry in Kansas for several years."
> — Tawnie Larson

The survey is available online at www.k-state.edu/kash.

"The purpose of the survey is to hear from Kansans about what they want to see in ag safety and health programming, how they want to receive the information, and what type of work they do in Kansas agriculture," Larson said.

Kansas agriculture producers make up approximately 60,000 operations and more than 45 million acres. The state's farmers raise 6.2 million head of cattle, 2 million pigs among other livestock. The top crops grown include wheat, corn, soybeans, sorghum and hay. When an injury occurs on the farm, Larson said the median days away from work is 10 days.

"Health and safety differ between planting and harvest seasons; between types of livestock; and between row crop farmers and cattle ranchers," Larson said. "We want to know what those perceptions are so we can offer the most useful and timely information in the methods that work best for them."

According to Larson, information from the survey will be used to develop programs offered through K-State Research and Extension, and to apply for future grants to support programs in the state. The survey should take about 10 minutes to complete, she said.

"We all want our work environments to be more healthier and safer, and this is one way that farmers and ranchers can help," Larson said. "Farmers and ranchers typically don't retire, so we want to make sure that they are able to continue to do what they love for as long as they would like."

More information is available by contacting Larson at 785-532-2976, or tawnie@ksu.edu. Information may also be available at local Extension offices in Kansas. — **K-State Research and Extension**

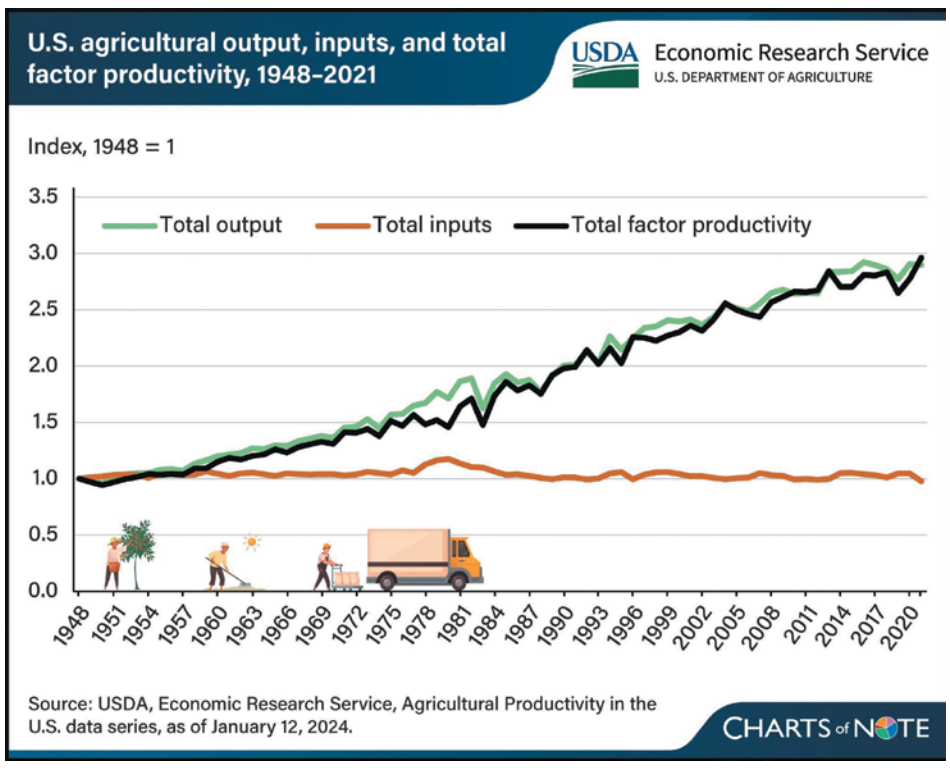
Productivity growth is major driver of ag growth

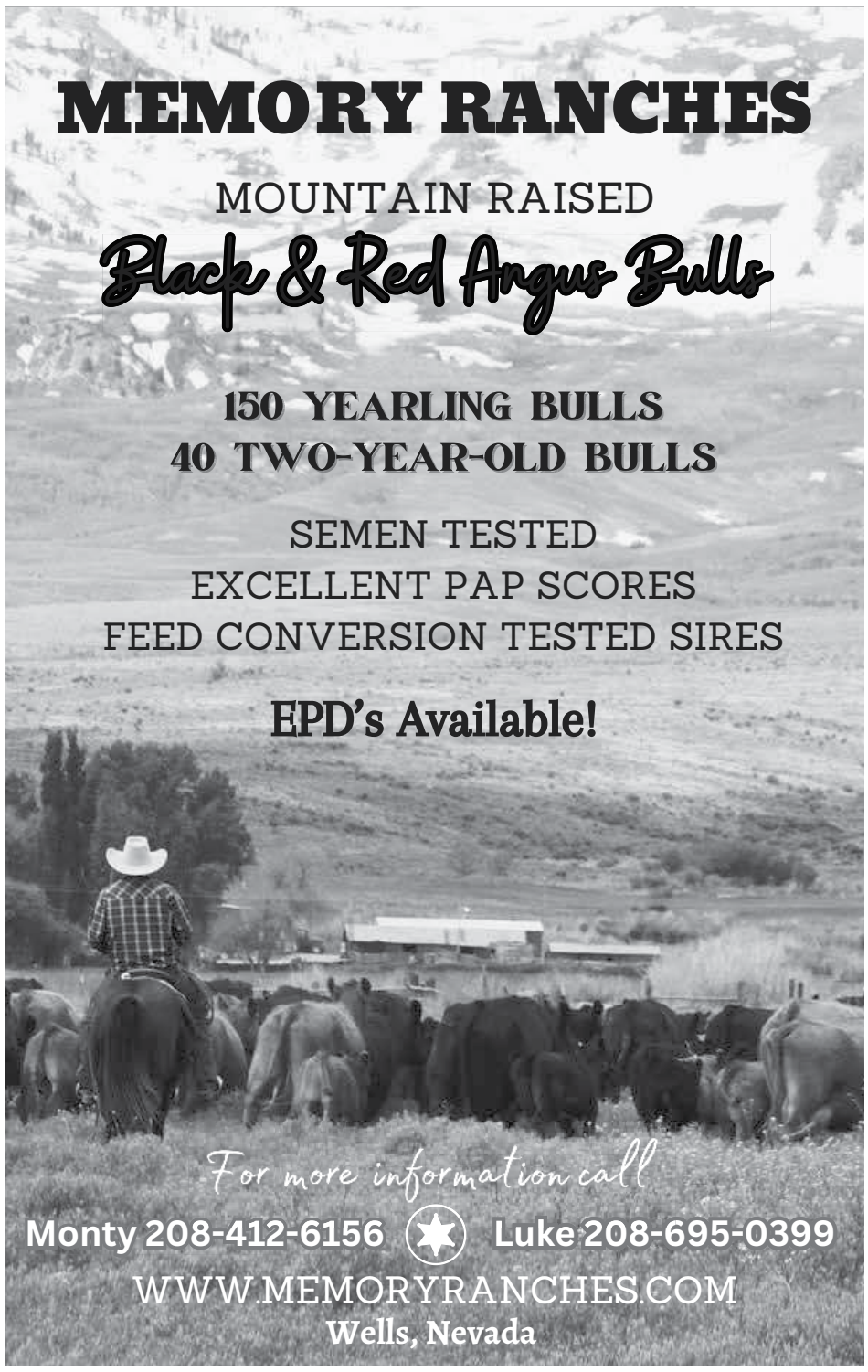
Technological developments in agriculture have enabled continued output growth without requiring much additional inputs. Innovations in animal and crop genetics, chemicals, equipment and farm organization have made it possible for total agricultural output to nearly triple between 1948 and 2021.

During that period, the number of inputs used in farming declined slightly over time, meaning that the growth in agricultural output over the long term has depended on increases in total factor productivity (TFP).

TFP measures the amount of agricultural output produced from the combined inputs (land, labor, capital and intermediate inputs) employed in farm production. Therefore, growth in TFP indicates positive changes in the efficiency with which inputs are transformed into outputs.

It can also be seen as an indicator of technical change. In the short term, total output growth and estimated TFP growth can be affected by random events, such as adverse weather. In the most recent TFP calculation period spanning 2020-21, agricultural output grew, which was due entirely to TFP growth, even as the amount of inputs used in farming fell. — **USDA Economic Research Service**





PRODUCT NEWS

Athian, Elanco team up

Athian announced the establishment of the first-of-its-kind voluntary livestock carbon insetting marketplace, with the first accepted protocol aimed at reducing enteric methane emissions and improving feed utilization by using innovative feed management products from Elanco Animal Health. This new carbon marketplace creates an opportunity for farmers to monetize their greenhouse gas emission reductions.

Athian is verifying its first farms and creating, certifying and selling carbon credits within the dairy value chain. This means:

• Dairy farmers of all sizes now have the opportunity to implement on-farm sustainability interventions, measure the impact and participate in third-party verification for their greenhouse gas emissions reductions. The resulting carbon credits can be offered for sale in Athian's livestock carbon insetting marketplace.

• Companies in the dairy value chain (such as consumer-packaged goods companies and food retailers) can then purchase those carbon credits as contributions towards achieving their Scope 3 emissions reduction goals.

• With the purchase of these credits, economic value is returned to the farmer via the sale while supporting the U.S. dairy industry progress towards their own environmental commitments of greenhouse gas neutrality by 2050.

• Over the long term, this marketplace will expand to other livestock & poultry.

"Athian's first carbon credits for dairy are an exciting and crucial step as they demonstrate the ability to tangibly quantify and verify greenhouse gas emissions reductions and create monetary value for farmers for their efforts," said Paul Myer, CEO of Athian. "This marketplace, specifically designed for the animal protein industry, is different than traditional offsetting carbon marketplaces because it keeps the value—economic value as well as positive environmental value—in the animal protein value chain."

Despite widespread awareness of carbon markets by farmers, only 3% of farmers are participating in these markets today, according to a recent survey cited by the USDA. Creating an inset market model that works with recognized supply chain partners makes it easier for farmers to measure and implement rigorous verifications, will help break these barriers to entry and accelerate progress.

"As a co-creator and seed investor in Athian, we're excited to see the company reach the milestones that will bring new value to farmers and help them advance toward climate-neutral farming," said Jeff Simmons, president and CEO of Elanco Animal Health. "As a leader in animal health, we've focused first on delivering enteric methane reduction solutions to producers.

"If the entire U.S. dairy industry leveraged this intervention, it would avoid 4.7 million metric tons of CO2e emissions annually from enteric, feed and manure emissions. This is a game changer for value creation throughout the food chain, and it's just the start. Environmental sustainability needs to be grounded in farmer profitability."

Elanco also developed UpLook, an insights-based engine designed to measure and monitor greenhouse gas emissions. The tool utilizes on-farm data and peer-reviewed science to identify key drivers of an operation's carbon footprint and track the progress of their sustainability efforts. UpLook connects seamlessly to Athian's cloud-based verification system to help farmers quantify their reduction efforts and certify carbon credits for sale.

Food companies and retailers have made public commitments to collectively reduce more than 100 million metric tons of greenhouse gas emissions by 2030. Despite the progress in corporate target-setting, the reduction of Scope 3 emissions, which typically come from the production of raw materials like milk, has been a significant challenge. The creation of Athian's insetting livestock carbon credit marketplace provides companies in the animal protein value chain the opportunity to make meaningful progress toward their Scope 3 greenhouse gas reduction goals.

Cattler launches interface with Elanco

Cattler announces the launch of its interface with Elanco Animal Health Incorporated, as part of the agreement reached September 2023, to provide data collaboration for customers participating in Elanco Knowledge Solutions (EKS) services that include (but are not limited to) Benchmark TM and Experior TM Data Services.

This interface provides Cattler customers with a streamlined access to comparability in these trusted Elanco services and is designed to deliver continuous data to help cattle feeders optimize their practices, paving the way for smarter and more integrated tools and solutions.

EKS Executive Director Michael Genho said, "We're excited to begin this data collaboration partnership with Cattler to better serve our joint customers. Their innovative cattle management platform will give more global cattle producers access to Elanco's various data services and products. Through this partnership we can better serve our customers and enhance the producer's experience with the Cattler platform."

Elanco's Benchmark converts data into information to help cattle feeders identify strengths and opportunities to pursue and measure performance over time.

Cattler is an Agtech company providing a management platform to cattle farmers across the Americas, from USA & Canada, all the way to Brazil, Argentina, Uruguay and Paraguay.

Cattler Co-founder and CEO Ignacio Albornoz shared his view on this partnership: "We are looking forward to this agreement with such an important partner in Elanco as a global leader in the industry," he said.

"We are convinced that there is an opportunity to really place value on all the available data around what other farms are doing. This is very powerful because it allows every farmer participating in this program to obtain actionable insights at the right moment he needs it, not just a random set of compiled statistics. The partnership will also allow our members to have access to Elanco's data services and products, and in this regard, test themselves with the pool of users in the space."

MARKET NEWS

MARKET SITUATION REPORT

WLJ compiles its market reports, ODJ stories and statistics from USDA and independent marketing organizations.

MARKET AT A GLANCE	This Week: 2/15/2024		Week Ago	Year Ago
Choice Fed Steers	180.13	▲	176.00	160.71
CME Feeder Index	244.93	▲	242.11	183.06
Boxed Beef Average	295.30	▲	295.01	279.55
Average Dressed Steers	287.24	▲	N/A	254.09
Live Slaughter Weight*	1,379	▼	1,397	1,384
Weekly Slaughter**	622,000	▼	637,000	630,000
Weekly Beef Production***	519.9	▼	536.8	519.7
Hide/Offal Value	11.59	▼	11.69	13.92
Corn Price	4.18	▼	4.33	6.76

*Average weight for previous week. **Total slaughter for previous week. ***Estimated year-to-date figure in million pounds for previous week.

BEEF REPORT: Weekly Composite Boxed Beef

WEEK ENDING	COMPREHENSIVE Loads	COMPREHENSIVE Price	PRIME Loads	PRIME Price	BRANDED Loads	BRANDED Price	CHOICE Loads	CHOICE Price	SELECT Loads	SELECT Price	UNGRADED Loads	UNGRADED Price
February 9	6,650	296.59	234	323.06	1,289	300.10	2,005	293.86	771	283.37	2,351	265.22
February 2	7,136	296.35	231	327.52	1,446	301.33	2,055	293.75	671	285.71	2,732	265.97
January 26	7,146	295.10	233	330.52	1,391	300.28	2,062	293.52	687	280.58	2,773	265.42
January 19	6,567	288.25	212	324.39	1,216	295.10	1,926	287.31	615	272.24	2,597	259.79

Cutouts — FED BOXED BEEF

DATE	CHOICE	SELECT	COW BEEF CUTOUT	50% LEAN	90% LEAN
Feb 15	295.30	287.99	234.90	93.75	303.89
Feb 14	294.00	284.02	234.15	91.69	301.73
Feb 13	292.27	285.30	231.72	91.08	N/A
Feb 12	294.08	287.02	231.06	74.19	296.83
Feb 9	294.04	285.08	233.89	74.56	306.83

CATTLE FUTURES: CME Live Cattle

	2/9	2/12	2/13	2/14	2/15	High*	Low*
Feb.	18463	18425	18375	18240	18340	19633	15310
Apr.	18673	18593	18510	18400	18560	19975	16853
Jun.	18398	18353	18255	18113	18188	18373	16668
Aug.	18273	18245	18158	17985	18053	18260	17005

CATTLE FUTURES: CME Feeder Cattle

	2/9	2/12	2/13	2/14	2/15	High*	Low*
Mar.	24715	24883	24800	24623	24710	26833	21280
Apr.	25178	25318	25175	24960	25023	25723	21608
May	25568	25685	25545	25295	25290	25633	21920
Aug.	26945	27030	26915	26653	26595	27095	22268

*High and low figures are for the life of the contract.

FED CATTLE TRADE

	Head Count	Avg. Weight	Avg. Price
WEEKLY WEIGHTED AVERAGES			
Live FOB Steer	15,104	1,438	180.13
Live FOB Heifer	10,126	1,309	179.76
Dressed Del Steer	1,685	956	287.24
Dressed Del Heifer	158	867	284.97
SAME PERIOD LAST WEEK			
Live FOB Steer	34	1,350	176.00
Live FOB Heifer	N/A	N/A	N/A
Dressed Del Steer	N/A	N/A	N/A
Dressed Del Heifer	N/A	N/A	N/A
SAME PERIOD LAST YEAR			
Live FOB Steer	7,048	1,551	160.71
Live FOB Heifer	3,556	1,390	159.88
Dressed Del Steer	750	875	254.09
Dressed Del Heifer	130	807	254.00

NATIONAL WEEKLY FED BEEF SLAUGHTER VOLUME: FEBRUARY 11, 2024

	Domestic	Imported
Forward Contract	19,671	3,750
Formula	281,155	3,352
Negotiated Cash	68,649	232
Negotiated Grid	45,442	1,106
Packer Owned	11,006	N/A
Total	**425,923**	**8,440**

SLAUGHTER FORWARD CONTRACTS		FORWARD BEEF SALES	
Delivery Month		Neg. Sales 0-21 days	1,880
Feb. '24	98,109	Neg. Sales 21+ days	1,091
Mar. '24	120,436	Formula sales	3,620
Apr. '24	164,681	Forward contract sales	60
May '24	70,444	Domestic sales	5,672
Jun. '24	70,420	NAFTA Exports	118

CANADIAN LIVESTOCK PRICES & FEDERAL INSPECTED SLAUGHTER FIGURES

Alberta Direct Sales (4% shrink)	Price	Weekly Change
Slaughter Steers, mostly Choice & Select 1-3, 1300-1500 lbs	162.03	N/A
Slaughter Heifers, mostly Choice & Select 1-3, 1200-1400 lbs	N/A	N/A
Ontario Auctions		
Slaughter Steers, mostly Choice & Select 1-3, 1300-1500 lbs	171.77	+5.74
Slaughter Heifers, mostly Choice & Select 1-3, 1200-1400 lbs	171.70	+6.63
Slaughter Cows, Cutter and Utility 1-3, 1100-1400 lbs	94.12	-2.62

*Price comparison from one week ago.

Average feeder cattle prices (CND) for week ending Friday, February 2, 2024

Steers:	Alberta	Saskatchewan	Ontario
501-600 lbs	301.94	299.22	272.91
601-700 lbs	264.74	N/A	261.56
701-800 lbs	237.14	N/A	237.09
801-900 lbs	223.69	N/A	227.28
Heifers:			
401-500 lbs	260.45	280.85	220.61
501-600 lbs	250.91	255.20	223.45
601-700 lbs	238.03	235.40	216.92
701-800 lbs	218.58	218.33	207.67

USDA MEXICO TO U.S. WEEKLY LIVESTOCK IMPORTS

Feeder cattle imports weekly and yearly volume.

Species	Current Week	Previous Week	Current Year-to-date	Previous Year-to-date
	2/5/2024	1/29/2024		
Feeders	25,751	25,600	133,506	132,123

USDA WEEKLY IMPORTED FEEDER CATTLE

February 15, 2024

Mexico to United States Feeder Cattle Import Summary

Receipts EST: 8,000 **Week Ago EST: 6,600** **Year Ago Act: 19,772**

Douglas, AZ

Compared to Wednesday, steer calves and yearlings sold 3.00 higher. Heifers not tested. Trade active, demand good. Supply consisted of steers weighing 300-600 lbs.

Santa Teresa, NM

Compared to Wednesday, steer calves and yearlings sold steady. Heifers steady. Trade moderate to active, demand moderate to good. Supply consisted of steers and spayed heifers weighing 300-600 lbs.

Feeder heifers: Medium and large 1&2		Feeder heifers: Medium and large 1&2	
300-400 lbs	N/A	300-400 lbs	255-265
400-500 lbs	N/A	400-500 lbs	245-255
500-600 lbs	N/A	500-600 lbs	235-245
Feeder steers: Medium and large 1&2		**Feeder steers: Medium and large 1&2**	
300-400 lbs	310-320	300-400 lbs	315-325
400-500 lbs	290-300	400-500 lbs	295-305
500-600 lbs	270-280	500-600 lbs	275-285

(slide 10 cents on steers and heifers basis 300 lbs. All sales fob port of entry.)

Selected Auction — Week Ending February 15, 2024

Feeder prices for steers & heifers reflect medium and large 1 cattle, unless otherwise noted; * Indicates medium and large 1-2

DATE / MARKET		200-300 lb.	300-400 lb.	400-500 lb.	500-600 lb.	600-700 lb.	700-800 lb.	800 lb. -up	SLAUGHTER COWS / SLAUGHTER BULLS	PAIRS / REPLACEMENTS	
February 9 Blackfoot, ID	N/A		260-313	270-322 250-308	250-313 230-299	220-283 205-260	210-260 205-231	185-239	87-11 103-118		NORTHWEST
February 8 Burley, ID	N/A			297-308	311-348.50 295-305	300 272	159-259 214	199-235 199	85-113 114-121		
No report available Emmett, ID											
February 10 Eugene, OR	801			240-315 190-260	246-267 200-256	185-249	190-221 180-204		87-110		
No report available Madras, OR											
February 7 Vale, OR	1,601		280-361 270-305	290-354 267-326	269-322 233-295	240-276 228-260	234-248.50 220-234	228-236 216-230	94-107 100-131		
No report available Davenport, WA											
February 8 Toppenish, WA	1,225					250* 233*			79.50-108		
February 8 Orland, CA	1,047			275-267 255-285	240-315 220-287	220-292 200-255	200-255 180-233	190-237	100-121 105-124		FARWEST
February 7 Escalon, CA	N/A								75-92 90-110		
February 5 Famoso, CA	240		225-300 175-240	230-300 180-240	230-280 175-250	200-259 160-250	185-248 160-180	135-180	85-130 90-120		
February 7 Galt, CA	311			275-336 270-324	270-312 250-312	200-270 220-265	200-240		80-117 70-102		
February 6 Turlock, CA	364		150-230* 135-220*	147-262* 152-240*	140-265* 130-252*	125-257* 120-215*	120-218* 117-210*	112-190* 100-200*	88-119.50 109-134		
February 6 Salina, UT	748	285-340 285-300	230-335 235-321	229-330 230-321	225-317 175-300.50	200-278 170-262.50	202.50-254 160-237.50	166-228 128-214	92-114 114-139		
February 12 Iowa	19,169		300-355 247-310	287.50-367.50 242.50-312.50	267-340.25 221-291	220-302.50 210-270	217-276.50 196-246.25	198-255.50 186-240			NORTH CENTRAL
February 13 Miles City, MT	748		360 338-342	346-351 301-333	326-333 276.50-310	291-295.50 240-274			87-111 94-135		
No report available Bassett, NE											
February 10 Ericson, NE	1,099									1,850-2,575	
February 13 Imperial, NE	2,730			325-364 283-319	290-348 273-308	267-310.50 241-257	243-256 225-256.25	240.75-245.25 210-210.50			
February 14 Kearney, NE	5,600			331-370 284-301	286-338 266-278	265-300 246.50-269.75	247-274 226.50-240	222.85-249.25 210-223	104-116.50 100-118		
February 9 Lexington, NE	4,466		355-369 300	317.50-362 281-314	295-339.50 260-290.50	260.75-326 240-272	243-276.50 225.50-240	232-244.75			
No report available Ogallala, NE											
February 8 Valentine, NE	1,650									1,625-2,975	
February 9 Herreid, SD	2,815		321	314-320 312-313	309-353.75 264.50-305.50	264.50-307.25 239.50-265	235.50-273.50 218-242	220-244.50 219.75			
February 7 Torrington, WY	3,984		385-402 321	345-372 310-338	315-346 275-325	270-320 247-276	235-272 233-243	219 220-221			
February 8 Willcox, AZ	945	345-399 347-371	367-414 300-356	299-357 286-329	257-329 228-255	234-250 197-220			88-112 98-120	1,325-1,500	SOUTH CENTRAL
February 12 Colorado	9,990	367.50 311	361-374 277.50-322.50	322-376 264-296	301-344 239-284	255-307 220-262	231-271 202-230	195-248 157.50-204.50	71-155 86-131	1,225-2,510 725-2,850	
February 7 La Junta, CO	1,632		321-374 317-335	317-349 290-329	281-325 251-289	250-293 226-248	226-249 214-225	218-233.50	91-111 111-131		
February 12 Loma, CO	355		310-340 310-325	300-310 260-327	270-290 260-286	260-280 245-268	215-240 215-235	185-220 165-215	103-118 115-127	1,975-2,325	
February 14 Dodge City, KS	5,192	360	387.50-404 295-342.50	301-385 273-327.50	283-322 270-300.50	250-304 230-269	232.75-260 211-239	198-242 186-219.75	100-131 83-139	1,450-1,800	
February 15 Pratt, KS	3,000	302.50	315	317.50 256-280	238-250	267.50-292 219-254	240-260 210-233.75	213-240 198-219.50			
No report available Salina, KS											
February 15 Clovis, NM	1,897	417-427 352-390	312-412 301-375	318-400 262-340	275-325 232-275	236-288 205-235	205-236 196-220	200-422 156-196	89-112.50 102-133	1,425-2,250 625-1,550	
February 14 El Reno, OK	7,131		390 320-345	340-390 284-307	290-327.50 251-305	256-295 224-245	235-261 213-231	198-235 207.50			
February 14 McAlester, OK	565		350-424 299-325	315-345 276-330	270-312 255-271	230-285 216-252	225-255 201-212	185-205 160-198	105-120 113-127	2,150 925-1,985	
February 13 Oklahoma City, OK	7,632		369-412 291-316	315-359 272-305	287-327 247-287	255-301 230-258	239-255 216-235	222-238 217-218			
February 9 Cuero, TX	1,718	301-407.50 263-400	293-265 262-362	279-336 255-336	248-311 234-282	235-290 223-279	213-244 215-270	190-228	85-116 94-128	1,650-1,800 1,200-1,500	
February 8 Dalhart, TX	2,301	402 317-347	353-396 285-321	331-390 273-316	270-320 262-279	270-283 226-256	231-249 209-219	215-235 185-214	70-112 101.50-135		
January 8 San Angelo, TX	1,199	307-310	370 295-309	322-347.50 270-319	295-306 244-250	256-258	245 220	207	90-113 118-131	1,600-2,225 950-2,200	
February 8 Tulia, TX	1,080	340	375 317-357	326.50 284-317	295-310 241-275	238-290 215-236	236.50-243.50 210-228	231-235.50 160-222.50	90-108 115	1,950-2250 1,500-2,000	
February 9 Alabama	11,238	380 280-330	310-380 260-315	283-350 245-285	248-310 225-269	231-279 190-240	210-234 180-210	180-200 185-187	95-138 100-143	825-2,125 800-1,800	EAST
February 12 Lexington, KY	1,376	211-247.50*	271-314* 205-265*	261-302* 225-280*	252-293* 211-253.50*	230-265* 190-235*	220-250* 151-219.25*	180-226* 125-172*	93-123 110-133	1,050-1,900 1,000-1,300	
February 12 Joplin, MO	13,125		360-370 290-325	295-370 267.50-315	285-337.50 250-305	252.50-312.50 229-270	225-261 221-254	204-241.50 202-230			
February 11 Tennessee	13,442	295-365* 260-360*	255-340* 220-295*	260-327* 217-279*	245-307.50* 200-265*	225-273* 170-240*	200-245* 150-221.50*	135-257.50* 123-196*	83-128 91-141	1,375-2,200 955-1,875	
February 12 Virginia	5,897	245	232-312 165-268	185-329 150-290	230-300 150-245	160-287.50 170-225.50	180-249.50 135-220	137.50-236 125-215			
CANADA											
January 14 Lethbridge, Alberta	837		478-507	475-505 414-431	390-462 374-395	368-417 345-371	345-388 327-351	310-351 314-331	128-144 148-164		

Higher feeder, fed cattle prices projected for 2024

MARKETS
(from page 1)

• Negotiated grid net purchases: $178.77.

On a dressed basis:

• Negotiated purchases: $286.97.

• Formula net purchases: $283.42.

• Forward contract net purchases: $290.34.

• Negotiated grid net purchases: $280.30.

Slaughter through Thursday is projected at 486,000 head. Total slaughter for a week earlier is estimated at 622,000 head. Actual slaughter for the week ending Feb. 3 was 632,438 head. The average steer dressed weight was 909 lbs., 3 lbs. lower than the prior week.

"Last year this week was 625k head while this week is estimated at 605k head. The forecast is for about 500k fewer fed cattle available this year than a year ago, so weekly harvest will be reduced 10k to 20k head consistently from a year ago throughout 2024," Fish said.

Boxed beef prices traded higher, with the Choice cutout up 29 cents to $295.30 and the Select cutout up $3.87 to $287.99.

USDA's Livestock and Poultry Outlook for 2024, released Feb. 15, gave a snapshot of higher feeder and fed cattle prices in 2024 due to limited production growth.

"Cattle producers should be encouraged by Thursday's news as the market's strong fundamental outlook is again supported by thin numbers and impeccable demand—which won't likely be tested until the cow herd begins to restock and supplies increase," Stewart said.

Commerical beef production in 2024 is forecast to be down 3% from last year at 26.19 billion lbs. Steer and heifer slaughter will reflect slightly higher numbers in feedlots in the beginning of the year, but production will fall as feedlot numbers decline, Chris Clayton, DTN ag policy editor, wrote on Thursday. Cow slaughter is also projected to decline.

2024's five-area steer price is forecast at a record $180/cwt, beating 2023's record of $175.54/cwt.

Feeder cattle

Feeder cattle futures also traded mostly sideways. The March contract gained 25 cents to close at $247.10, and the April contract lost $1.70 to close at $250.22.

The CME Feeder Cattle Index gained $2.82 to close at $244.93.

Corn futures continue to decline, with the March contract down 16 cents to $4.17 and the May contract also down 16 cents to $4.29.

"From a practical standpoint and to those operating commercially in the industry, capturing a margin in the beef business will be tough," the Cattle Report said. "Stocker and growers will fight sky high calf prices while feedlots fight an ever-declining pool of feeder cattle that will force some pens to go empty."

They added, "In the immediate future, the supply of cattle on winter grain fields is down 2% from prior year, forcing curtailed placements this spring."

Iowa: Russell Livestock in Russell sold 3,654 head on Monday. Compared to the previous auction, steers sold steady to $7 higher, while 550-600 lbs. steers traded $13 higher. Heifers mostly sold $7-16 higher. Benchmark steers averaging 723 lbs. sold between $254.50-278, averaging $266.08.

Kansas: Winter Livestock in Dodge City sold 4,962 head on Wednesday. Compared to the last auction, feeder steers 800-950 lbs. sold steady but cattle carrying mud were discounted by $3-4. Steers 550-800 lbs. sold $5-7 higher. Steer calves 400-550 lbs. sold steady. Heifers 475-800 lbs. sold $4-8 higher. Benchmark steers averaging 772 lbs. sold between $232.75-254, averaging $245.81.

Missouri: Joplin Regional Stockyards in Carthage sold 12,000 head on Monday. Compared to a week earlier, feeder steers sold $2-5 higher and feeder heifers sold $4-10 higher. Benchmark steers averaging 779 lbs. sold from $237-256, averaging $243.45.

Nebraska: Tri-State Livestock in McCook sold 3,430 head on Monday. Due to not having a recent auction, a comparison could not be made. Benchmark steers averaging 726 lbs. sold between $256-268, averaging $264.17.

Oklahoma: Oklahoma National Stockyards in Oklahoma City sold 7,500 head on Monday. Compared to a week earlier, feeder steers and heifers were lightly tested. Steer and heifer calves traded $2-4 higher. Benchmark steers averaging 776 lbs. sold from $239-248, averaging $244.14.

South Dakota: Sioux Falls Regional Cattle in Worthing sold 6,543 head on Monday. Compared to the last auction, light steers 550-700 lbs. sold mostly $1-3 higher. Heavier steers 750-950 lbs. sold mostly steady to $2 higher, with instances of $8 higher. Light heifers 600-650 lbs. sold $1 lower, with instances of $6 lower. Heifers 700-750 lbs. sold $6 higher. Benchmark steers averaging 768 lbs. sold between $244-264.50, averaging $256. — **Anna Miller, *WLJ* managing editor**

CLASSIFIED CORRAL

WESTERN LIVESTOCK JOURNAL

WWW.WLJ.NET 303-722-7600 1-303-722-0155 CLASSIFIED@WLJ.NET

CLASSIFIED ADVERTISING GENERAL INFORMATION

ADVERTISING RATES

BY THE WORD: 90 cents per word for each insertion.

MINIMUM WORD RATE: 17 words or fewer, $15.30 one time.

MAD RATES: (Bold headline) $2 more per insertion for your phone number, email and/or website, plus first 2 or 3 words in bold print. (Applies to word ads only)

BOXED AND BOLD: (Boxed with bold text) $5 more per insertion. (Applies to word ads only)

BLIND BOX AD: We will assign your confidential number and forward replies to you. **Cost is $12 per 3 issues** for mail and handling service.

BOXED DISPLAY ADS: $30 per column inch for each insertion.

MINIMAL ARTWORK: No additional charge.

BLACK AND WHITE PHOTO: $10, LIMIT OF ONE.

COLOR PHOTO: $35 EACH.

DISCOUNTS: 5% for running your ad 3 to 5 times; 10% for 6 times or more; up to 35% for 52 times.

SUGGESTION FOR CORRECT WORD COUNT: Be sure to include your name, address and phone number in the count, as well as all initials and abbreviations. Hyphenated words count as two.

TEARSHEETS: Available upon request only. Can be faxed or mailed.

CONDITIONS

EMPLOYMENT WANTED ADS: Must be paid in advance.

DEADLINE: Tuesday at 4:30 p.m. MT, the week prior to publication date. Newspaper is published on Mondays.

LIABILITY: Advertiser is liable for content of advertisement and any claims arising therefrom made against the publication.

Publisher is not responsible for errors in phoned-in copy. Publisher reserves the right to refuse any advertising not considered in keeping with the publication standards.

COMMISSIONS: Classified advertising is NOT agency commissionable.

CLASSIFIED INDEX

CLASSIFIED CORRAL

1-800-850-2769 • Fax: 303-722-0155
www.wlj.net • classified@wlj.net

DO NOT PHONE IN RESPONSES TO BLIND BOX ADS. ADVERTISERS' NAMES AND LOCATIONS ARE CONFIDENTIAL. INCLUDE THE AD DEPARTMENT NUMBER IN YOUR EMAIL RESPONSE OR ON YOUR ENVELOPE AND YOUR REPLY WILL BE PROMPTLY FORWARDED.

VISA DISCOVER NOVUS American Express Cards MasterCard

2 FOR 1 PLACE A CLASSIFIED AD, SEE IT IN PRINT & ONLINE

CLASSIFIED ADS WORK!
www.wlj.net

Call & schedule your classified ad today!
800-850-2769

classified@wlj.net
303-722-0155 Fax

Help Wanted 2

Earn $60,000/yr part time in the livestock or farm equipment appraisal business.

Agricultural background required.

Home study course available.

(800) 488-7570

www.amagappraisers.com

HERDSMAN
GENOA LIVESTOCK

Full time position for experienced Herdsman.

All aspects of ranch operations: Herd management and health, Haying, Irrigation.

Registered cow/calf operation Western Nevada.

Housing, salary + bonuses, benefits.

For more information: Genoa Livestock.com

Cattle For Sale 10

8 - 3 in 1, 1 - bred cow, ranch raised, 4-7 years old, Angus influence with F1 Waygu calves, updated vaccinations. Calve April-May. Pairs $3800, Bred cow $1800. Would like to sell as a group.

Call or text evenings:

650-814-6585.

PRATT FARMS GRAY BRAHMANS

GENTLE AMERICAN BEEF TYPE GRAY BRAHMANS

Loren Pratt
520-709-1554
44996 W. Papago Rd.
Maricopa, AZ 85139

Dogs For Sale 14

Blue Red Heeler puppies AKC.
360 749 6333

FREE Golden Retriever Puppies to Forever Homes!

1 Male,1 Female. Excellent temperament! House trained with very good trainable natures & perfect for families with children and other pets! I will not re home to just anyone.

PLEASE email me first before text:

stephaniechristensen59@gmail.com

(312) 932-7651

Livestock Supplies 18

POWDER RIVER LIVESTOCK EQUIP.
Best prices with delivery available.
Conlin Supply Co., Inc.
Oakdale, CA
Ask for Larry or Albert
209/847-8977

Real Estate Opportunities 20

MAC America AG FINANCE

$100,000,000 ag loans available. First come, first serve.

30-year mortgages, livestock facilities. Simple application.

Call or text Michelle Evans 406-641-0030

Real Estate Pacific 20A

KNIPE LAND COMPANY® EST 1944

Howerton Spring Ranch
422± acres with 140± acres in dry pasture, timbered hills, and draws. Fenced and cross fenced, with multiple water sources. Great hunting! **Price Reduced! Now $2,500,000**

Gilbert Grade Farm
379± acre dry-land farm with 260± acres cultivated, timber, a pond, spring, 2 outbuildings, and power nearby **Price Reduced! Now $1,372,500**

Buying or Selling? Call today!
(208) 345-3163 • knipeland.com

Irrigation 27

WESTERN POLY PIPE

HDPE PIPE for Ranch Water Systems
Fair Prices • Good Service • Rancher Owned
DELIVERY THROUGHOUT THE WEST
CALL TODAY: 775-657-1815

Visit www.wlj.net

Real Estate Opportunities 20

HALL AND HALL®

SALES | AUCTIONS
FINANCE | MANAGEMENT
Dedicated to Land and Landowners Since 1946

BOZLE CREEK RANCH
CRAWFORD, NEBRASKA

Situated in the historical Pine Ridge area of northwest Nebraska, the ranch contains rich agricultural fields intertwined with wooded creek bottoms leading up to pine-covered ridges. Not only an outdoor enthusiast's dream, but it is also a viable working cattle ranch.

OFFERED AT $14,780,000

Contact: Mark Johnson | mjohnson@hallandhall.com

WWW.HALLANDHALL.COM | INFO@HALLANDHALL.COM | 402.322.1991

Real Estate Southwest 20D

Scott Land Company, LLC
RANCH & FARM REAL ESTATE
We need your listings on any types of ag properties in TX, NM, OK & CO.

NEW LISTING! CLAPHAM SCHOOL HOME – 4,450± sq ft home located on a beautiful 10-acre tract southwest of Clayton, New Mexico just one-half mile south off the Thomas Highway w/a new well and septic system. The Pinabetes Creek, just steps away is a magnet for wildlife including deer, elk and many water fowl.

NEW LISTING! YESO EAST RANCH – De Baca Co., NM - Hwy. 60 frontage. 6,307± deeded, 1,556± State Lease and 40± uncontrolled acres. Terrain is gently rolling with good grass and is divided into three pastures. Wildlife includes antelope, some mule deer, quail, etc. The ranch has good improvements (including home) convenient access and has been well managed.

UNION CO., NM – This 1,966± acre ranch located just south of Clayton, New Mexico is in some of the most sought-after grazing land in the Continental U.S.A. The ranch will be excellent for a yearling operation, with high quality grass, good fences and water.

www.scottlandcompany.com • 800-933-9698 day/eve
Ben G. Scott – Broker • Krystal M. Nelson – NM QB

World Class Ranches Team — eXp REALTY

Bob & Sandy Bahe
Accredited Land Consultants
Branch Office: 918-426-6006
Main Office: 888-560-3964 ext.137

Rouse Road Ranch 450 acres m/l
McAlester, OK Combination ranch, 112 acres of pasture, barn, fenced, 8 ponds, county road access, rural water available, Whitetail deer and other wildlife.
$1,575,750.00

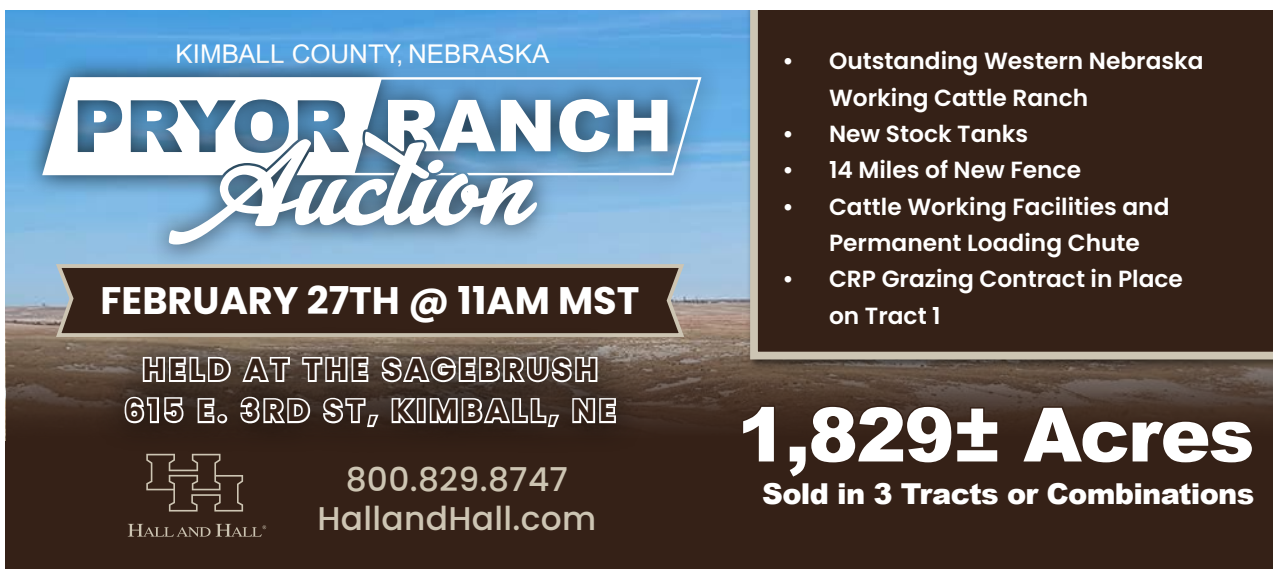
Escape to Serenity 2.25 acres m/l
McAlester, OK 2.25 acre treed lot with updated home, shop, shed, 4 bedroom, 2 bath stone home with lots of natural lighting, Close to shopping, medical, and schools.
$252,900.00

To view all properties (Including Pictures, Aerials and Topo Maps) go to:
www.WorldClassRanches.com
Call Toll Free Today: 1-844-WCR-Land (844-927-5263)

ALC

STAY UP TO DATE

Real Estate Plains 20E



SALE CALENDAR

Sale Calendar is a service to our advertisers. There is a minimum advertising requirement to be eligible to be listed in the Sale Calendar. Contact your fieldman for more information or to have your date added to the Sale Calendar. We will only run auction sale dates or private treaty start dates.

ALL BREEDS

Mar. 1 — Intermountain Genetic Alliance, Bull Sale, Heber City, UT
Mar. 15 — Intermountain Genetic Alliance, Bull Sale, Baker, NV
Mar. 16 — UBIA, Bull Sale, Salina, UT

ANGUS

Feb. 19 – Frank Cattle & Genetics, Bull Sale, Chappell, NE
Feb. 19 — Teixeira Cattle, Bull Sale, Terrebonne, OR
Feb. 19 — Weaver Ranch, Production Sale, Fort Collins, CO
Feb. 20 — Coleman Angus, Bull Sale, Missoula, MT
Feb. 20 — Kessler Angus, Bull Sale, Milton-Freewater, OR
Feb. 20 – Rooney Angus/7 Triangle 7 Cattle Co., Bull Sale, Brush, CO
Feb. 21 — Shaw Cattle Co., Bull Sale, Caldwell, ID
Feb. 22 — Van Dyke Angus Ranch, Bull Sale, Manhattan, MT
Feb. 23 – Hyline Angus, Bull Sale, Three Forks, MT
Feb. 23 – RS Angus, Bull Sale, Brownell, KS
Feb. 23 – Skinner Ranch, Bull Sale, Hall, MT
Feb. 23 – Star Gate Ranch, Bull Sale, Twin Falls, ID
Feb. 24 — Baker Angus, Bull Sale, Vale, OR
Feb. 24 — Lyman Livestock, Bull Sale, Salina, UT
Feb. 24 — RV Bar Angus, Bull Sale, Jensen, UT
Feb. 25 — Buchanan Angus, Bull Sale, Klamath Falls, OR
Feb. 26 — Circle L Ranch, Bull Sale, Dillon, MT
Feb. 26 — Colyer Angus & Hereford, Bull Sale, Bruneau, ID
Feb. 27 — Barker Cattle, Bull & Female Sale, Burley, ID
Feb. 27 – Connelly Angus Ranch, Bull Sale, Valier, MT
Feb. 27 – Haynes Cattle Co., Bull Sale, Ogallala, NE
Feb. 27 – J.C.Heiken & Sons, Miles City, MT
Feb. 27 — Thomas Angus Ranch, Bull Sale, Baker City, OR
Feb. 28 — Price Cattle, Bull Sale, Stanfield, OR
Feb. 29 — Wooden Shoe Farms, Bull Sale, Blackfoot, ID
Mar. 1 — Crouthamel Cattle, Bull Sale, Stanfield, OR
Mar. 1 – Parry Angus, Bull Sale, Sterling, CO
Mar. 1 – Reminisce Angus, Bull Sale, Dillon, MT
Mar. 2 — 3C Cattle Co., Bull Sale, Stevensville, MT
Mar. 2 — Kimm Angus, Bull Sale, Three Forks, MT
Mar. 2 — Loya/Wardell Angus, Bull Sale, Platteville, CO
Mar. 2 — Lucky 7 Angus, Bull Sale, Riverton, WY
Mar. 2 — Trinity Farms, Bull Sale, Ellensburg, WA
Mar. 3 — Stevenson Angus, Bull Sale, Hobson, MT
Mar. 4 — Harrell Hereford & Angus, Bull Sale, Baker City, OR
Mar. 4 – Hopson Angus, Crescent, OK
Mar. 5 — 3-String Cattle & Dille Red Angus, Bull Sale, Castleford, ID
Mar. 5 — Allen Brothers, Bull Sale, Baker City, OR
Mar. 5 — Apex Angus, Bull Sale, Valier, MT
Mar. 5 — Ipsen Cattle, Online Production Sale, Dingle, ID
Mar. 5 — Manzano Angus, Bull Sale, Estancia, NM
Mar. 6 — Ox Bow Ranch, Bull Sale, Wolf Creek, MT
Mar. 6 — Snake River Valley Genetics, Bull Sale, Blackfoot, ID
Mar. 7 — Cannon Angus, Bull Sale, Preston, ID
Mar. 7 — Split Diamond, Bull Sale, Dillon, MT
Mar. 8 — Felton Angus Ranch, Bull Sale, Fort Worth, TX
Mar. 8 — Green Mountain Angus, Bull Sale, Billings, MT
Mar. 8 — Rollin' Rock Angus, Bull Sale, Pilot Rock, OR
Mar. 9 — Yardley Cattle Co., Bull Sale, Beaver, UT
Mar. 9 — Riverbend Ranches, Bull Sale, Idaho Falls, ID
Mar. 11 — Pine Coulee Angus, Bull Sale, Hardin, MT
Mar. 11 — Spring Cove Ranch, Bull Sale, Bliss, ID
Mar. 12 – Veltkamp Angus, Bull Sale, Manhattan, MT
Mar. 12 – Wagon Wheel Ranch, Bull Sale, Yuma, CO
Mar. 13 – Hornung Livestock, Bull Sale, Stratton, CO
Mar. 13 – Sitz Angus, Bull Sale, Dillon, MT
Mar. 13 — Udy Cattle, Bull & Female Sale, Rockland, ID
Mar. 14 — Sunny Okanogan Angus Ranch, Production Sale, Omak, WA
Mar. 15 — Caywood Angus Ranch, Bull Sale, Tendoy, ID
Mar. 15 — J Lazy S, Online Bull Sale, Salmon, ID
Mar. 15 — Montana Performance Bull Co-op, Bull Sale, Columbus, MT
Mar. 15 – TD Angus, Bull Sale, North Platte, NE
Mar. 16 — Nelson Angus, Bull & Female Sale, Salmon, ID
Mar. 16 — South Montana Angus Association, Bull Sale, Butte, MT
Mar. 16 — Ward Angus Ranch, Bull Sale, Gardnerville, NV
Mar. 18 — Angus in the Basin, Bull Sale, Duchesne, UT
Mar. 18 — Herd Builder, Bull Sale, Othello, WA
Mar. 18 — Whistling Winds Angus, Bull Sale, Hingham, MT
Mar. 19 — Blevins Angus, Bull Sale, Charlo, MT
Mar. 19 — ELK Angus, Bull Sale, Buffalo, WY
Mar. 20 — Lufkin Cattle, Bull Sale, Tendoy, ID
Mar. 20 – Wagonhammer Ranches, Bull Sale, Albion, NE

CHAROLAIS

Feb. 20 — V-A-L Charolais, Bull Sale, Vale, OR
Feb. 22 — Small Livestock, Bull Sale, Winnemucca, NV
Feb. 23 — Cowman's Kind, Bull Sale, Madras, OR
Mar. 12 — Romans Ranches Charolais, Production Sale, Harper, OR
Mar. 20 – Wagonhammer Ranches, Bull Sale, Albion, NE

GELBVIEH

Feb. 24 – Black Gold Genetics, Bull Sale, Pritchett, CO

HEREFORD

Feb. 21 — Shaw Cattle Co., Bull Sale, Caldwell, ID
Feb. 26 — Colyer Hereford & Angus, Bull Sale, Bruneau, ID
Feb. 29 — Wooden Shoe Farms, Bull Sale, Blackfoot, ID
Mar. 4 — Harrell Hereford & Angus, Bull Sale, Baker City, OR
Mar. 5 — Ipsen Cattle, Online Production Sale, Dingle, ID
Mar. 9 — Northwest Hereford Breeders, Bull Sale, Stanfield, OR
Mar. 11 — Holden Herefords, Bull Sale, Valier, MT
Mar. 12 — Cooper Herefords, Bull Sale, Willow Creek, MT
Mar. 13 — Udy Cattle, Bull & Female Sale, Rockland, ID

MAINE ANJOU

Mar. 9 — Yardley Cattle Co., Bull Sale, Beaver, UT

RED ANGUS

Feb. 19 – Frank Cattle & Genetics, Bull Sale, Chappell, NE
Feb. 21 — Shaw Cattle Co., Bull Sale, Caldwell, ID
Mar. 1 — Sutherlin Farms, Production Sale, Stevensville, MT
Mar. 2 — Redland Red Angus, Bull Sale, Hysham, MT
Mar. 5 — Sandhills Red Angus, Bull Sale, Sidney, MT
Mar. 5 — 3-String Cattle & Dille Red Angus, Bull Sale, Castleford, ID
Mar. 8 — Leland and Koester Red Angus, Bull Sale, Sidney, MT
Mar. 12 — Loosli Red Angus, Bull Sale, Ashton, ID
Mar. 13 — Udy Cattle, Bull & Female Sale, Rockland, ID
Mar. 16 — Iron Lorenzen Cattle, Bull Sale, Madras, OR
Mar. 16 — Milk Creek Red Angus, Bull Sale, Plevna, MT
Mar. 19 — Green Mountain Red Angus, Bull Sale, Logan, MT
Mar. 20 — Klompien Red Angus, Bull Sale, Manhattan, MT

SALERS

Feb. 23 – Skinner Ranch, Bull Sale, Hall, MT

SIMANGUS

Feb. 22 — Small Livestock, Bull Sale, Winnemucca, NV
Feb. 23 — Star Gate Ranch, Bull Sale, Twin Falls, ID
Feb. 24 — Baker Angus, Bull Sale, Vale, OR
Feb. 24 — Lyman Livestock, Bull Sale, Salina, UT
Feb. 27 — Barker Cattle, Bull & Female Sale, Burley, ID
Feb. 28 — Price Cattle, Bull Sale, Stanfield, OR
Mar. 2 — Trinity Farms, Bull Sale, Ellensburg, WA
Mar. 5 — Allen Brothers, Bull Sale, Baker City, OR
Mar. 9 — Yardley Cattle Co., Bull Sale, Beaver, UT

SIMMENTAL

Feb. 19 — Bulls of the Big Sky, Bull Sale, Billings, MT
Feb. 25 — Poppe Cattle Co., Bull Sale, Fallon, MT
Mar. 9 — Yardley Cattle Co., Bull Sale, Beaver, UT
Mar. 15 — Black Summit Cattle, Bull Sale, Powell, WY

COMMERCIAL

Feb. 29 — Western Video Market Internet Sale, CA

HORSE

Mar. 2 — Winnemucca Ranch, Rodeo Horse Sale, Winnemucca, NV
Mar. 4 — Harrell & Mackenzie, Quarter Horse Sale, Baker City, OR

SUPERIOR VIDEO AUCTION

Feb. 8, Hudson Oaks, TX

Superior Livestock Auction hosted their video auction live on Feb. 8 from the Superior Livestock Auction Studio in Hudson Oaks, TX. Cattle producers offered over 52,600 head of calves, yearlings and bred stock from 29 states for this auction. Cattle were sold on contract to deliver immediately through October 2024.

A very strong buyer base opened the auction with regions 3/4/5/6/ feeder steers at levels not seen since October 2023. Most advances were on deferred deliveries coming off wheat pasture, with prices $5-12 higher than the last auction. Immediate deliveries were not as strong but still saw advances of $4-6 higher.

Feeder heifers also saw advances at $4-8 higher. Regions 1/2 feeder steers and heifers were only lightly tested but on a higher trend at an increase of $5-10. Grazing condition weaned calves from all regions were very well received with record highs on select lots of calves under 625 pounds reaching levels over $300/cwt. Beef-dairy cross calves were in strong demand and gained back some ground from the previous auction. Bred stock was met with steady prices.

CLASSIFIED CORRAL
WESTERN LIVESTOCK JOURNAL

Fencing/ Corrals 29

Fencing/ Corrals 29

Equipment For Sale 30

YARDLEY CATTLE COMPANY

51ST ANNUAL *Elite* BULL SALE

140 HEAD OF ELITE SIMMENTAL, SIMANGUS, ANGUS AND MAINE ANJOU BULLS

SATURDAY MARCH 9TH, 2024 Beaver, UT 1:00 MST

Lover Boy X Y1 Abundance
PB SM, BW 78 WW 747 YW 1330
Reg # 4242848

W/C Banchor X KLER Make it Rain
PB SM BW 94 WW 767 YW 1263
Reg # 4242934

Achievement X Y1 Top Notch
3/4 SM 1/4 AN BW 73 WW 755 YW 1352
Reg # 4242836

Loverboy X Y1 Top Gun,
PB SM BW 91 WW 727 YW 1195
Reg # 4242842

Banchor X Y1 Standout
5/8 SM BW 90 WW 688 YW 1159
Reg # 4243001

TJ Chief X OCC Jet Stream
1/2 SM 1/2 AN BW 87 WW 786 YW 1339
Reg # 4242953

Y1 Standout X Y1 Top Gun
3/4 SM 1/4 AN BW 83 WW 740 YW 1278
Reg # 4242855

Loverboy X Y1 Abundance
PB SM BW 76 WW 711 YW 1295
Reg # 4242861

SAV Patriot X SAV West River
ANGUS BW 84 WW 685 YW 1164
Reg # 20679458

Banchor X SFG The Judge
3/4 SM 1/4 AN BW 90 WW 767 YW 1252
Reg # 4242990

Loverboy X Y1 Top Notch
PB SM BW 82 WW 645 YW 1082
Reg # 4242939

Coleman Bravo X Sinclair Mtn Pass
ANGUS BW 78 WW 707 YW 1318
Reg # 20700881

WHY USE YARDLEY BULLS

1. THE BIG FEEDERS PAY A PREMIUM FOR CALVES SIRED BY OUR BULLS BECAUSE THEY HAVE EYE APPEAL, UNIFORM PHENOTYPE, CARCASS QUALITY AND ARE THE BEST GAINERS. 2. Their daughters will be your most productive cows. 3. Their calves weigh 25 to 100 lbs. more at weaning. 4. Our bulls are **PAP TESTED, FERTILITY TESTED, PERFORMANCE TESTED, ULTRASOUND SCANNED** and rigorously sifted on performance, phenotype, and structural soundness. 5. YARDLEY CATTLE ARE BRED WITH THE COMMERCIAL CATTLEMEN IN MIND with emphasis on fleshing ability, good udders, structural soundness, and good feet and legs. 6. These bulls are wintered in big lots on half grass/alfalfa and only 1% grain. 7. They are born unassisted on the range and walk 25 miles to and from the summer range that goes to 10,200 ft. elevation; they must be structurally correct. 8. You don't have to baby and pamper them. WE DO NOT CREEP FEED. 9. Our cattle have natural fleshing ability, winter on desert winter range without hay. 10. We stand behind our customers our bulls are backed by our first-year breeding guarantee. 11. They have proven themselves to adapt to all environments and have sold into 32 states, Canada, and Mexico. 12. Simmental and SimAngus are some of the most sought-after cattle by order buyers, feedlots and for replacement females. 13. Large selection of the highest performing bulls in the industry that sire heavier muscled, faster gaining calves with more style, depth, thickness, and square butts. 14. You won't find more QUALITY any place than you will see in these cattle. 15. We have been Aling for 56 years. OUR FOCUS IS ON COW FAMILIES that have longevity and fleshing ability to stay fat on grass. 16. **The Cattle Business is our only business. THESE CATTLE HAVE WORKED FOR US AND THEY WILL WORK FOR YOU.**

YARDLEY CATTLE CO.

CALL TO REQUEST A CATALOG, ONLY THOSE WHO REQUEST A CATALOG WILL RECEIVE ONE.

www.yardleycattleco.com • yardleyY1@gmail.com • DVAuction.com

Steven Yardley (435) 310-1725 • Leslie Yardley (435) 310-1723 • Gib Yardley (435) 691-8688