Western Livestock Journal®

"The Industry's Largest Weekly Circulation"

The National Livestock Weekly

March 14, 2022 • Vol. 100, No. 15

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

A Crow Publication

INSIDE WLJ

ARTIFICIAL INSEMINATION — This special section of *WLJ* covers the latest advances in breeding and AI technologies, including estrus sync and in vitro fertilization. **Page 16**

SALMON LAWSUIT THREAT — The Western Environmental Law Center is considering a lawsuit over the Shasta River Safe Harbor program and its effects on coho salmon. **Page 5**

A LOOK BACK IN HISTORY

The field of nutrition is ever-changing, and one mineral, zinc, is still being studied today for its health benefits. And in a March 1999 *WLJ* article, the Montana Beef Council made a compelling argument for zinc: "Got a cold? Skip the chicken soup and eat a steak instead. … Beef's loaded with zinc—the cold and flu season's nutrient d'jour. In fact, beef is one of the most readily available sources of zinc in the food supply. … Zinc does more than fight off aches and pains. In addition to giving your immune system a boost, zinc is also essential for fetal, infant and child growth, healing wounds and revving up your taste buds."

INDEX

Opinion P-2
Legal Ledger P-3
Markets P-28
Classifieds P-30
Sale Calendar P-31

Lake Powell will drop below the critical level

— Dependent on snowpack

The Bureau of Reclamation (BOR) announced water levels in Lake Powell will drop below the target elevation of 3,525 feet in the coming weeks.

As a result of a very dry January and February, the Colorado River Basin's snowpack has dipped below average in several areas, reducing Lake Powell's projected inflow by 2.2 million acre-feet (an acre-foot is 325,851 gallons). The BOR's February 24-Month Study projects Lake Powell dropping below 3,525 feet sometime in March.

"This year, the Colorado River Basin has experienced extremely variable conditions with a record high snowpack one month, followed by weeks without snow," said BOR Deputy Commissioner of Operations David Palumbo in a statement. "This variable hydrology and a warmer, drier West have drastically impacted our operations, and we are faced with the urgent need to manage in the moment."

As part of the 2019 Drought Contingency Plan Agreement, specifically the Drought Response Operations Agreement, BOR describes 3,525 feet as the target elevation and 3,490 feet as the minimum power pool elevation, the lowest point at which Glen Canyon Dam can generate hydropower. The target elevation provides a 35-foot buffer and allows time for response actions to help prevent Lake Powell from dropping below the minimum power pool.

The Glen Canyon Dam is the largest single electricity producer in the Colorado River Storage Project, a system of hydroelectric power plants in the Upper Colorado Basin, producing electricity for 3.2 million customers in the West.

BOR officials said the drop is temporary, and Lake Powell's elevation is expected to recover above 3,525 feet through the spring runoff season, likely in May.

"Reclamation is not planning to take further action to address this

See POWELL on page 8



National Park Service

Water levels in Lake Powell will likely deteriorate below the target elevation of 3,525 feet in the coming weeks. Pictured here, Lake Powell, with Navajo Mountain in the background.

FDA clears first food use of gene-edited cattle products

— Allowed to be marketed

The Food and Drug Administration (FDA) has made its first low-risk determination to allow marketing of products—including food—from two genome-edited cattle and their offspring. The decision comes after it was determined the intentional genomic alteration (IGA) did not raise any safety concerns.

The approved gene editing results in a short-haired (slick) coat in cattle. This is the first time the FDA has made a low-risk determination for enforcement discretion for an IGA in an animal for food use. Previously, FDA has made low-risk determinations for IGAs in animals for non-food uses. The agency has also approved applications for five IGAs for other species.

"We expect that our decision will encourage other developers to bring animal biotechnology products forward for the FDA's risk determination in this rapidly developing field, paving the way for animals containing low-risk IGAs to more efficiently reach the marketplace," said Steven M. Solomon, DVM, MPH, director of the FDA's Center for Veterinary Medicine (CVM).

The agency's review of scientific data determined the product is low risk, and FDA does not expect the product developer to pursue the FDA's approval prior to marketing. FDA also does not expect farms or facilities owned by the developer to register with the agency.

However, FDA noted: "This decision is limited to the marketed products (e.g., live animals, semen, embryos, meat) derived from the existing two cattle containing the IGA for which FDA has reviewed data and their progeny."

See FDA on page 14

Advances in reproductive technologies in beef cattle

— Reproductive efficiency

Dr. Carla D. Sanford with Dean Farms of Georgia gave a presentation on beef cattle reproductive technology advances at the first RancHER program hosted by Oregon State University in December, discussing recent trends in reproductive technologies for beef cattle.

Carla earned her Ph.D. at the University of Florida; her graduate work focused on fetal developmental programming. She continued research at Montana State University, where she was an assistant professor and beef cattle specialist. She is now back on her family's cow-calf operation and says reproductive performance is critical for success.

A reproductive herd plan may consist of several assisted reproductive technologies, including estrus synchronization, artificial insemination (AI), embryo transfer (ET), in vitro fertilization (IVF) or ovum pickup. In her presentation for the RancHER program, she discussed the foundation of a sound reproductive herd plan, where to start and how to get the most from a breeding program.

She talked about the impact of reproductive efficiency and how important it is to the beef industry and some of the things a producer can do to optimize reproductive efficiency. "Data from the Beef Cattle Research Council in 1977 showed reproduction is five times more important than growth rate and 10 times more important than carcass quality," she said. A cow must first become pregnant and have a calf before you can think about the growth and quality of that calf.

"Reproduction is still the number one thing to be concerned with. We need to keep pushing the envelope to get more females to conceive in the first 21 days of breeding season and get the highest number of calves from genetically superior bulls," she said. There are several strategies to improve reproductive efficiency in terms of selection pressure, management of the operation, using a controlled

See ESTRUS on page 20

Uncertainty continues throughout cattle market

The Russia/Ukraine war continues to cast uncertainty over the marketplace and world, and the cattle market has responded accordingly.

"The two sides of the warring factions met and formally announced they were unable to negotiate a ceasefire of anything short of total surrender by Ukraine," said the Cattle Report. "This sent grain higher and cattle lower."

Live cattle futures sank lower over the week. The April contract lost $2.44 to close at $135.90, and the June contract lost $2.70 to close at $132.45. *(Editor's note: The April contract closed at $138.34 on March 3; not the previously reported $135.15.)*

"After a two day rally back to the 10-day moving average, the downtrend in CME cattle futures has definitely resumed," wrote Cassie Fish, market analyst, in The Beef. "Wednesday's close was lousy and today's close was worse."

Cash trade through Thursday morning totaled about 78,500 head. While volume was up from earlier weeks, prices were several dollars lower. Live steers sold between $136-140, and dressed steers sold between $218-222.

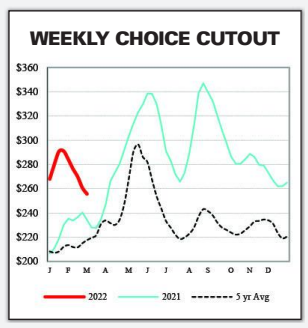
Cash trade the first week of March totaled 75,674 head, with 70 percent of the contracts for nearby delivery. Live steers averaged $140.64 (down $2.53), and dressed steers averaged $224.58 (down $2.60).

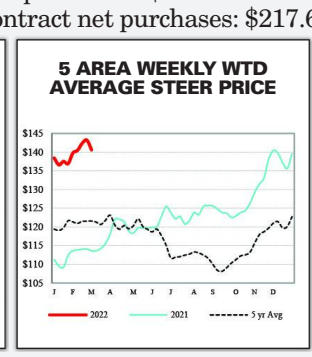
The national weekly direct beef type price distribution for the week of Feb. 28 to March 7 was the following on a live basis:

- Negotiated purchases: $140.84.
- Formula net purchases: $144.88.
- Forward contract net purchases: $143.34.
- Negotiated grid net purchases: $143.71.

On a dressed basis:

- Negotiated purchases: $224.65.
- Formula net purchases: $228.51.
- Forward contract net purchases: $217.67.
- Negotiated grid net purchases: $225.64.





LIVE STEERS	DRESSED STEERS	CME FEEDER
$138.12	$220.14	$153.06

WEEK ENDING: 3-10-22

See MARKETS on page 29

PERIODICAL: Time Sensitive Priority Handling

COMMENTS

Avoidable mess


CROW

Vladimir Putin, Russia's dictator leader, has certainly turned the world upside down. Most of the world is angry at the man for disrupting the status quo. We were in a world of relative peace, and suddenly we're looking at a hostile invasion of a neighboring country that has been a democracy since the Soviet Union was destroyed in the 1990s.

Markets have gone nuts—all markets, especially commodities. Corn reached near $8, wheat $13 and soybeans $17. Do you suppose that feed efficiency in livestock will be more important than ever? Watching these bull sales, the past few weeks have been remarkable. Bulls, regardless of breed, are selling for more money than ever before. Remember when cattlemen would keep the best bull calves from their commercial calf crop for herd bulls? I'm sure it still happens, but to a lesser degree than back in the 1970s.

Buying bulls has become a precise business, and you better have your breeding goals laid out for several years. Most breed associations have started indexing economically relevant traits for bull buyers to help them stay away from single-trait selection. So, I would suggest using these indexes.

Russia and Ukraine are major players in corn and wheat, and we are getting very close to planting season, which lays a lot of questions before us. Both of these countries are major fertilizer producers, and as we all know, fertilizer prices are 200-300 percent higher than a year ago. And this was a good time to disrupt the global oil and gas markets. It seems pointless to quit buying Russian oil since it is only 3 percent of our domestic usage.

The green agenda is starting to get a little out of hand. The Biden administration needs to reassess their energy policies and get the hydrocarbon business back on its feet. Gasoline prices in some parts of California are over $7 a gallon, which is the worst place to buy fuel, and low-income households get hit the worst.

This is no time to panic or make emotional decisions, but you do have to wonder how we are going to get a crop in, or even if Ukraine can get a crop in the ground with bombs flying around. How is Putin going to get his tail out of this crack in world order? I don't think it's a secret that Russia and China would like to change that. Most of the free world will have Putin in their sights, and something drastic is going to happen.

Cattle futures markets have pushed the panic button; live cattle and feeder cattle futures have lost their way and are forgetting that the market supply/demand fundamentals are in good shape. Fed cattle trade was $138 last week, and the live cattle contract was $137.57, so there is a tiny positive basis. Some cattle traded at $140, down $2-3 from the prior week.

Packers have turned up the processing line and are processing 125,000 head per day. Beef production is strong as we head into the second quarter of the year, when beef demand is at its best. The boxed beef cutout has stabilized around the $250 mark; packer margins have fallen 42 percent over the past six weeks. Recent packer margins calculated by the Livestock Marketing Information Center are $351.90 per 1,000 pounds of carcass weight, including byproducts. Last year, packer margins averaged $452.80 per 1,000 lbs. of carcass weight.

How high can fuel prices rise? Speculators are calling for $200 for a barrel of oil. Currently, we are at $109.50 per barrel. We are seeing diesel prices over $5 a gallon—it's going to be an expensive planting season this spring.

It's going to be a tough year for meat producers and agriculture in general. Energy and fertilizer and crop chemicals will pose an expensive planting season. I doubt there will be any new ground planted. Then we must remain concerned about moisture. The Drought Monitor still has a grip on the West and spots in the Corn Belt. Grain prices will remain high, and feeding livestock will be expensive. So, when you're buying bulls, pay attention to feed efficiency.

Putin's war has disrupted just about everything. Pressured supply chains are worse and more expensive—inflation will be with us longer than many of us think. So, let's pray for peace and more moisture. — **PETE CROW**



DITTMER'S TAKE

WASHINGTON AND US

Build Back Better (or broke) died because of two senators holding positions they had staked out earlier in 2021. The Democrats thought surely they could change these two minds. Not so far.

Sen. Joe Manchin (D-WV) opposed the massive spending in the bill—the tendency of the bill to give away money with no work requirements or any means tests. He also had misgivings about social engineering that would drastically change our economy and culture.

Manchin was open—and still is—to increasing tax rates. Though repealing the Trump/Republican tax cuts was not in that bill, Manchin would be okay with partially rolling them back.

Sen. Kyrsten Sinema (D-AZ) was the reason the Democrats couldn't raise tax rates. She did not feel Americans should pay more taxes, and her position is stronger now, given higher inflation rates and fuel prices hammering all levels of production. Only members of Congress and big city dwellers riding subways and trains can fail to understand the plight of people in the rest of the country.

Though most of the beef industry has come together in opposing mandates turning cattle market control over to the government, it's not over yet. There are members of Congress who think mandates would "solve" the industry's marketing problems. There are still cattlemen's groups who agree.

No word yet on how Congress can repeal the laws of supply and demand. It can distort, muffle and stifle market signals from consumers.

The beef industry got a mention in President Joe Biden's State of the Union speech but not for supporting America's free markets. Biden is still stuck on the faulty idea that the number of companies in an industry is the key determinant of competition in an industry. He and his advisers either seem unfamiliar with beef industry market dynamics, do not understand basic free markets or are laser-focused on antitrust notions. There's been an administration antitrust push from the beginning. It's their hammer—and everything looks like a nail.

The issue revolves around claimed "control." If there was no competition in the industry, if the big packers "controlled" the market, the price of cattle would not move unless they permitted it. There would have been no then-record prices for cattle in 2014 and 2015. Packers would not have lost hundreds of millions of dollars in many of the years of the 21st century or shut down plants if they "controlled" the market. There would have been no major move in cattle prices at the end of 2021 and the beginning of 2022.

The fact that supply and demand moved the market, that the worm turned in recent months with tighter cattle supplies giving leverage to feeders again, demonstrated that the market works over time. The dynamics of the industry are that there are hundreds of thousands of cow-calf operators and a couple thousand major feeders at one end of the beef chain. They make independent decisions that affect the number of cattle available—and sometimes they make more cattle available than the market demands. At the other end of the beef chain are consumers who want quality and consistency, but most have limited budgets. That puts price pressure on the chain. Cost is a serious consideration to consumers and therefore to the production chain and particularly to packers. The size and scale of the big packers are intrinsic to the beef industry's ability to compete pricewise with the pork and poultry industry—and alternative center-of-the-plate entrees.

Putting the government in the position of determining the numbers at any level of the production chain ruins the whole model of letting consumers tell the production chain what they want and what they are willing to pay. The importance of getting and responding to those market signals is absolutely critical. Our ignoring those signals is what severely damaged beef demand in the '70s and '80s and truly took the industry into a nosedive of constantly selling less beef for less money.

The industry refocused on consumer demand, figured out ways to meet it and has gotten very good at it, which is why our beef demand today—from consumers here and around the world—is the best it's been in over three decades domestically and ever in the rest of the world. We tamper with those basics at the extreme peril of our industry. Improve around the edges, sharpen our delivery, do what we do better, faster and cheaper—but forget who's boss, and we will nosedive again like a bomber headed for the drink. — **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.)

GUEST OPINION

INTEREST RATES ARE HEADED HIGHER, BUT HOW HIGH?

Russia's invasion of Ukraine squeezes the Federal Reserve Board in contradictory ways. Its inflationary effects might seem to call for pushing rates higher, faster. But the resulting economic uncertainty inclines the Fed to move cautiously, at least in the short run.

As Federal Reserve Board chair in the late 1970s and early 1980s, Paul Volcker tamed double-digit inflation by raising interest rates sharply. Some borrowers, including some farmers, didn't survive.

In the long run, the invasion could be laying the groundwork for much higher rates than previously forecast.

Testifying before Congress on March 2 and 3, Fed Chair Jerome Powell signaled the central bank will make the first move at its mid-March meeting with a quarter-point increase from current near-zero levels, not the half-point increase some had feared. "In this very sensitive time at the moment, it's important for us to be careful in the way we conduct policy simply because things are so uncertain and we don't want to add to that uncertainty," Powell told the Senate Banking Committee.

Yet Powell admitted that the escalating sanctions spell "upward pressure on inflation for at least a while." Before the invasion, Fed policymakers thought the inflation rate would be coming down by the time of their March meeting. Instead, it's likely to be going up.

That puts the Fed in a bind. Continued increases in inflation would seem to call for beginning the rate raising with a bolder increase, a half point rather than a quarter point. But with the world economy on tenterhooks owing to the invasion, a half-point increase risks touching off a recession or even a financial crisis. That's what Powell was alluding to when he said the Fed doesn't want to "add to the uncertainty."

Central banks are also loath to react to what they see as temporary price shocks, like the surge in oil and gas prices touched off by Russia's invasion. That's yet another reason the Fed would want to move cautiously.

The problem with moving cautiously even as inflation accelerates is that it could force the Fed to take truly drastic action later. There's a real risk the public comes to expect higher prices and demands higher wages to compensate. While the energy price shock is probably temporary, it worsens the risk of a wage price spiral, which would be anything but temporary.

If a wage price spiral develops, Powell could find himself in something like the position Paul Volcker was in when he took over as Fed chair in 1979. Inflation was raging at double-digit levels, and in response, the Fed under Volcker boosted its benchmark interest rate more than 8 percentage points over two years, from just under 11 percent to more than 19 percent.

Inflation surrendered; Volcker suffocated it. The cost, though, was a deep recession and huge pain for borrowers. Farmers of a certain age shudder when they recall that era, which took many farms down with it.

During the Senate Banking Committee hearing, Republican Sen. Richard Shelby of Alabama asked Powell whether he would follow Volcker's example. Powell didn't flinch. He praised Volcker as "the greatest economic public servant of the era" and declared, "I hope that history will record that the answer to your question is yes."

This was, of course, a hypothetical exchange. We're not in the situation Volcker found himself, and with luck, we never will be.

Still, take this exchange between the senator and Fed chair as an early warning sign. At recent meetings, Fed officials have been projecting raising rates by a couple of percentage points over a couple of years. But if inflation continues to worsen, rates could go up a lot more than that—a lot more. It would not be pretty to watch Powell channel his inner Volcker. — **Urban Lehner, DTN editor emeritus**

Letters to the Editor: Letters for publication should 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 Editorial, 7355 E. Orchard Road #300, Greenwood Village, CO 80111.

Western Livestock Journal The National Livestock Weekly • Since 1922 • A Crow Publication • 7355 E. Orchard Rd., #300, Greenwood Village, CO 80111 • www.wlj.net • 303-722-7600 • FAX 303-722-0155

NELSON CROW Founder
FORREST BASSFORD Former Publisher
DICK CROW Former Publisher
PETE CROW Publisher, pete@wlj.net 720-372-2086

EDITORIAL@WLJ.NET
ANNA MILLER Managing Editor, anna@wlj.net 720-372-2353
CHARLES WALLACE Editor, charles@wlj.net • 720-372-0955

ADVERTISING SALES
TOM WHITE 303-722-7600 • tom@wlj.net
ADVERTISING@WLJ.NET
CORINA BROWN Production Manager 720-370-5636 • corina@wlj.net
RUTH DICHARD Advertising Coordinator & Graphic Design 720-372-1763 • ruth@wlj.net
MIKE OLDCORN Advertising Coordinator & Graphic Design 720-370-9095 • mike@wlj.net

CLASSIFIED@WLJ.NET 303-722-7600
CIRCULATION@WLJ.NET
MOE DONE Circulation Manager • Copy Editor 720-370-8275 • circulation@wlj.net
ACCOUNTING@WLJ.NET 303-722-7600
NATIONAL ADVERTISING
PETE CROW, Publisher 7355 E. Orchard Rd., #300, Greenwood Village, CO 80111 - 303-722-7600

FIELD REPRESENTATIVES
JIM GIES 19381 WCR 74, Eaton, CO 80615 970-590-0500 email: jgies@msn.com
DEVIN MURNIN P.O. Box 50381 Billings, MT 59105 406-696-1502 email: devin.murnin@gmail.com
LOGAN IPSEN 4550 Elgin Rd, New Plymouth, ID 83655 916-947-2392 email: logan.ipsen@yahoo.com

WESTERN LIVESTOCK JOURNAL (ISSN 0094-6710) is published weekly (52 issues annually, plus special features) by Crow Publications, Inc., 7355 E. Orchard Rd., #300, Greenwood Village, CO 80111. Web address: http://www.wlj.net or Email: editorial@wlj.net or advertising@wlj.net. Subscription rate (U.S. subscriptions): $55.00 per year, 2 years $85.00, 3 years $110.00, single copy price $1.50. Periodicals postage paid at Englewood, CO, and additional mailing offices. POSTMASTER: Send address changes to Western Livestock Journal, c/o Crow Publications, Inc., P.O. Box 370930, Denver, CO 80237-0930.

LEGAL LEDGER

New grazing retirement bill

Reps. Adam Smith (D-WA-09) and Jared Huffman (D-CA-02) recently introduced the Voluntary Grazing Permit Retirement Act of 2022, which would give grazing permit holders the ability to voluntarily waive their permits on federal lands for compensation and to promote conservation. "As ranchers across the country face increasing costs and land management challenges, this legislation would provide them with the flexibility to do what is best for their land and families," Smith said. "Federal grazing permit holders often face barriers or have limited flexibility to give up their grazing permits, even when it is the best option for their own situation." Relinquishing permits would be voluntary. The bill has the support of several conservation groups, including the Humane Society of the United States, Western Watersheds Project and Sierra Club.

AZ wolf authority bills

Arizona Rep. David Cook (R-08-Globe) introduced House Bill (HB) 2181, which would strip state wildlife officials of their authority to stop the killing of Mexican gray wolves in certain circumstances. HB 2181 would allow a person to take a wolf that was actively threatening or attacking a person, livestock or a domestic animal. The bill passed the Arizona House and awaits the Senate's decision.

Fire legislation introduced

Reps. Tom McClintock (R-CA-04) and Doug LaMalfa (R-CA-01) introduced H.R. 6903, which would require the secretary of Agriculture to immediately suppress wildfires. The secretary, acting through the chief of the U.S. Forest Service (USFS), would be required to use all available resources to carry out wildfire suppression on National Forest System lands within 24 hours after a fire's detection, including out-of-control prescribed fires. The bill also states the USFS "may only use fire as a resource management tool if the fire is a prescribed fire that complies with applicable law and regulations; and may only initiate a backfire or burnout during a wildfire by order of the responsible incident commander."

Williams sworn in to USFWS

Martha Williams was sworn in as director of the U.S. Fish and Wildlife Service (USFWS) by Interior Secretary Deb Haaland on March 8. Williams was previously serving as principal deputy director since Jan. 20. "I look forward to continuing my life's work of collaborating with local communities and stakeholders to tackle conservation efforts and the tough wildlife and resource management issues facing the country," Williams said. Williams previously served as the director of the Montana Department of Fish, Wildlife and Parks; was an assistant professor of law at the Blewett School of Law at the University of Montana in Missoula, MT; and served as deputy solicitor for Parks and Wildlife.

Stronger vehicle standards

The Environmental Protection Agency has proposed stronger standards to reduce pollution from heavy-duty vehicles and engines starting in model year 2027. "These new standards will drastically cut dangerous pollution by harnessing recent advancements in vehicle technologies from across the trucking industry as it advances toward a zero-emissions transportation future," said EPA Administrator Michael S. Regan. The proposed revisions to existing greenhouse gas (GHG) standards for model year 2027 and beyond would set updated GHG emissions standards for certain subsectors, including school buses, transit buses, commercial delivery trucks and short-haul tractors. EPA will also be setting new GHG emissions standards for heavy-duty vehicles as soon as model year 2030.

R-CALF USA legislation toolkit

Ranchers-Cattlemen Action Legal Fund, United Stockgrowers of America (R-CALF USA) has released a guide for cattle producers to influence the enactment of two pieces of legislation regarding mandatory country of origin labeling (MCOOL) and the 50/14 proposal. The toolkit breaks down the steps needed to pass the American Beef Labeling Act of 2021—which would reinstate MCOOL—as well as the 50/14 cattle market protection bill, which would mandate cash trade. The toolkit includes a script for producers to call their leaders with, action steps, a letter to the editor template, a flyer and other materials. The toolkit can be found at www.r-calfusa.com/mcool-50-14-toolkit.

Suit to strengthen ESA

The Center for Biological Diversity filed a petition March 8 requesting the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to strengthen the Endangered Species Act's (ESA) implementation of regulations. The petition calls for undoing Trump-era rollbacks to the act and implementing new regulatory safeguards. "Despite the law's remarkable success, the services have been reluctant to fully implement it, succumbing to years of political and industry pressure to weaken what is the only hope for imperiled species. The time for reform is now," said Stephanie Kurose, a senior policy specialist at the Center.

WY lawmakers working on series of water bills

— ARPA dilutes funding

With two-thirds of the state experiencing severe to extreme drought and snowpack levels below normal, Wyoming lawmakers have proposed a series of bills for water infrastructure projects to increase storage capacity and assist agriculture producers.

Senate File (SF) 82, sponsored by the Select Water Committee, originally called for $154.8 million as part of several bills totaling over $310 million that were proposed for water development using funds from the American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law.

Yet, Sen. Larry Hicks (R-11-Baggs) told the Senate the committee wanted to reduce the general fund request by about $71 million after learning what is eligible for funding from ARPA funds.

According to the report by the U.S. Treasury on the use of ARPA funds, "The statute limits investments to those that are necessary." It permits the funds only for "certain dam and reservoir restoration projects and certain drinking water projects to support population growth." The water committee hoped to use the funds for agriculture and other water diversion projects, including $65 million for the Alkali Creek reservoir and Leavitt Reservoir expansion projects.

But $80 million remains in the legislation and includes: $2 million for groundwater exploration, $25 million for acquiring water storage capacity in the Fontenelle Reservoir, over $21 million for damage repair of irrigation tunnels for the Goshen Irrigation District and $30 million for the LaPrele Dam rehabilitation water development project.

The 130-foot-high LaPrele Dam, built in 1909, is in danger of an "abrupt" catastrophic failure and is a hazard looming above Ayres Natural Bridge and Park and Interstate 25, according to Gov. Mark Gordon's (R) letter to the U.S. Bureau of Reclamation.

The bill passed the Senate on a unanimous vote and moved onto the House Appropriations Committee as of *WLJ* press time.

Another water bill in legislation, House Bill 6, would establish the Wyoming statewide American Rescue Plan Act water infrastructure program with $95 million in ARPA funding. It would establish a grant program for eligible water and wastewater infrastructure projects up to a maximum of $7.5 million. Grants provided to support eligible projects could not exceed 85 percent of the project cost. The bill failed in the Senate Appropriations Committee.

SF 80 provides over $46 million for water development, including money to enhance the winter snowpack by cloud seeding. The bill would provide $873,000 for the Medicine Bow and Sierra Madre mountain ranges and $844,000 for the Wind River and Sierra Madre mountain ranges for cloud seeding to augment the winter snowpack in the 2022-23 season.

Additionally, it would provide money for municipal water supply projects, agricultural water supplies and new developments projects, including the Broken Wheel Ranch water supply, Middle Piney Reservoir and Laramie Valley diversion. As of *WLJ* press time, the measure passed the Senate unanimously, and the House Appropriations Committee moved the bill forward to the House.

A bill sponsored by Hicks and several other lawmakers clarifies state ownership of groundwater.

SF 81 amends the Wyoming Constitution to state, "Underground water within the boundaries of the state is the property of the state." The bill passed the Senate and moved to the House floor after moving through the Agriculture, State and Public Lands and Water Resources Committee.

The water bills come as lawmakers of the Joint Appropriations Committee said their budget bills closely align with Gordon's $2.3 billion recommendations for the 2023-24 biennium budget, and lawmakers consider funding during this legislative session. — **Charles Wallace, *WLJ* editor**



A pitch to open CRP ground to counter global supply shock

— Ukraine supply impacts

It started with a string of tweets from University of Illinois agricultural economist Scott Irwin stating the war in Ukraine "is going to be the biggest supply shock to global grain markets in my lifetime." With that, Irwin said USDA should open up Conservation Reserve Program (CRP) acres for cropping.

"So, my simple proposal is to let every CRP acre to be eligible for cropping for 2022 and only 2022," Irwin tweeted on March 3. "No interruption of payments or contracts. Just change the rules on an emergency basis so it can be cropped if a farmer wants to risk it this year."

By the next afternoon, on a call about USDA deadlines for Agriculture Risk Coverage, Price Loss Coverage and crop insurance, two veteran reporters were asking Farm Service Agency Administrator Zach Ducheneaux if USDA had any plans to open up the 22.1 million acres in CRP.

"Does the administration plan to allow emergency planting of crops on CRP land this year, considering the interruption of wheat and corn supplies because of the invasion of Ukraine?" was asked.

Ducheneaux noted USDA keeps an eye on world events and "understands that there's a significant portion of CRP that ended reserves and production. However, at this time, no decisions have been made in that regard."

Ducheneaux was then asked: "Is there any time frame that you all are looking at in terms of a decision on CRP? You would have to make some decision in the next month or so." Ducheneaux responded, "Of course, any time frame for any decision on the use of CRP would likely have to come before spring planting or whatever. That's not a discussion that we're having at the agency at this time. That may be going on at the department level with the secretary."

As a footnote, USDA was in the general CRP sign-up period, which ended March 11. USDA shows 3.9 million acres are set to expire from the program at the end of September. Before the war started, USDA had a goal of trying to bump up acreage to the 25 million acre cap in the farm bill.

On a daily editorial call at DTN on March 4, Irwin's pitch was discussed. Had CRP acreage been planted last year, there would have been a lot less haying and grazing to offer for supplemental feed to livestock producers in the drought. Memories are short, but last summer led to extreme drought conditions in western states, the Northern Plains and over into Minnesota. That prompted USDA to open up CRP for emergency haying and grazing.

When it comes to Ukraine, the country was pegged to produce 33 million metric tons (mmt) of wheat, nearly all winter wheat, for 2021-22, or 1.2 billion bushels (bb), and export 24 mmt, or 889 million bushels (mb). In comparison, the U.S. is pegged to produce 44.79 mmt (1.64 bb) and export 22.05 mmt, or 810 mb.

Ukraine also is forecast to produce 42 mmt (1.65 bb) of corn and export 33.5 mmt (1.32 bb) of that crop.

Joseph Glauber, a former USDA chief economist, also responded on Twitter to Irwin's thread on CRP and whether it could help ease the global supply problems. He said it was "not likely for wheat in the short run." Glauber noted about 4.1 million acres will expire in spring wheat states—Idaho, Washington, Minnesota, North Dakota and South Dakota.

Of that acreage, Glauber said 1.1 million acres had been in the program for longer than 10 years. If all those acres were planted with spring wheat in the next few months, they would hit about 88 mb (but actual production would likely be far less, Glauber noted). At peak production, they would generate about 2.4 mmt, or about 1.1 percent of global trade.

Glauber noted, "Much of the land in the CRP is marginal, less productive land, so yields would likely not be nearly as large as the historical yields we saw in 2018-20. So, slippage would be great even if all of the acres were to be put into production."

And not all of those acres would come back into production. Glauber noted back in 2006-14 that when prices were high, some acres did come back into production. CRP acres have fallen from 37 million acres in 2007 to about 22 million acres now. A lot of that has been driven by farm bill policy that capped CRP acres. Right now, CRP is capped at 25 million acres.

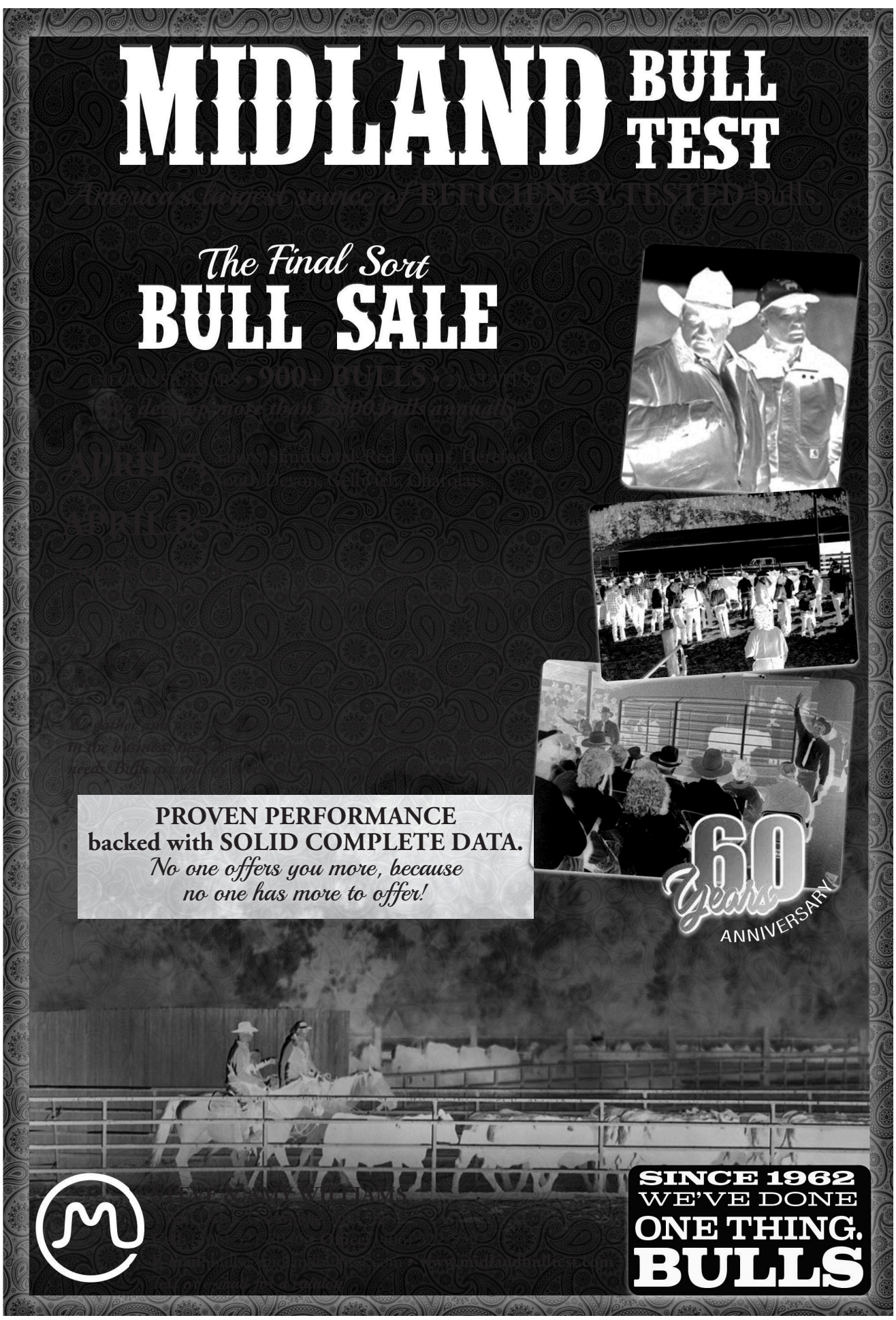
Irwin later noted on Twitter there is similar talk in the European Union of waiving the set-aside rules for the EU's Common Agricultural Policy.

On DTN's editorial call, the agronomy team kicked in with some questions of their own. DTN has already been reporting about tight fertilizer, seed and chemical supplies this year. Just what exactly would be available to recharge millions of acres of CRP ground to get it planted?

We are also a little short on history here, but USDA tried in 2008 to allow as many as 24 million acres in the CRP program to be used for livestock haying or grazing without docking landowners on the contract. Then-Secretary of Agriculture Ed Schafer announced the program on May 27, 2008, in response to high feed prices. USDA projected at the time that doing so would generate 18 million tons worth of forage for livestock producers. Schafer's decision led to a lawsuit by the National Wildlife Federation and state affiliates claiming that USDA did not conduct proper environmental impact studies before opening up CRP in such a way.

By the time the case hit the courtroom in July, USDA reported that about 2.5 million acres had been signed up for the emergency program. The distinction in court was that USDA is allowed to open up emergency haying and grazing in counties considered to be disaster areas or contiguous counties. That's different than opening up the entire program.

The 2008 case led to a temporary restraining order blocking USDA's special program. The court ruled USDA could not unilaterally modify CRP contracts without doing a more open environmental impact study than the one conducted by USDA at that time. USDA regulations require the department to conduct such studies, the court ruled. The judge in the case capped USDA acreage for haying and grazing at 3 million acres, spread across different states and regions. — **Chris Clayton, DTN ag policy editor**



Major flooding possible after exceptional drought

If you are wondering how a location can move from an exceptional drought to a major flood in a short period of time, you might want to watch the Red River Valley between North Dakota and Minnesota.

North Dakota suffered from a major drought in 2021 with an exceptional drought—a category four drought (D4) based on a scale from D0 to D4, with D4 being the most intense drought. All the counties in eastern North Dakota along the Red River Valley were rated at least D3 (or extreme drought) based on the Drought Monitor map published on Aug. 24, 2021.

"Cass, Traill and Grand Forks counties were even in worse conditions with D4 or exceptional drought," said Adnan Akyuz, state climatologist and professor of climatological practices at North Dakota State University (NDSU).

The 2021 drought was a record-breaking drought in many aspects. For instance, none of the counties mentioned above were in D4 prior to 2021. In fact, more than 17 percent of the state was suffering from an exceptional drought in 2021. It was the most extensive drought coverage of such intensity on record, and it was also the most extensive drought coverage in D3, D2 and D1 intensities on record.

"One hundred percent of the state was in drought 11 weeks in a row from June 15 through August 24," Akyuz said.

The economic impact of the drought on the state was estimated between $2 billion and $5 billion based on the National Centers for Environmental Information.

"The weather patterns changed in August along the Southern Valley," Akyuz said.

October was unusually wet, not only along the Red River, but all across the state, which was a welcome change. However, it was too late to reverse the severe agricultural impacts. It was also too early to foresee what might be in store for the Red River Valley.

"Fargo's climate data in fall and winter are good analogs to judge the flood potential in the Southern Valley," Akyuz said.

"Fargo received 7.31 inches of rain in fall, the 22nd wettest fall on record. Fargo also received 46.2 inches of snow so far in winter, which is the 20th snowiest winter on record, and the winter is not over in North Dakota yet," Akyuz said.

Based on the National Weather Service's North Central River Forecast Center's latest forecast, there is a 90 percent chance that the Red River will exceed the major flood stage this spring. The probability of exceeding the major flood stage in Grand Forks is only 25 percent.

"North Dakota climate has consistently demonstrated that extremes can occur in a very short period," says Akyuz. — **NDSU Extension**

Ag exports of $150B generated $154B for the economy

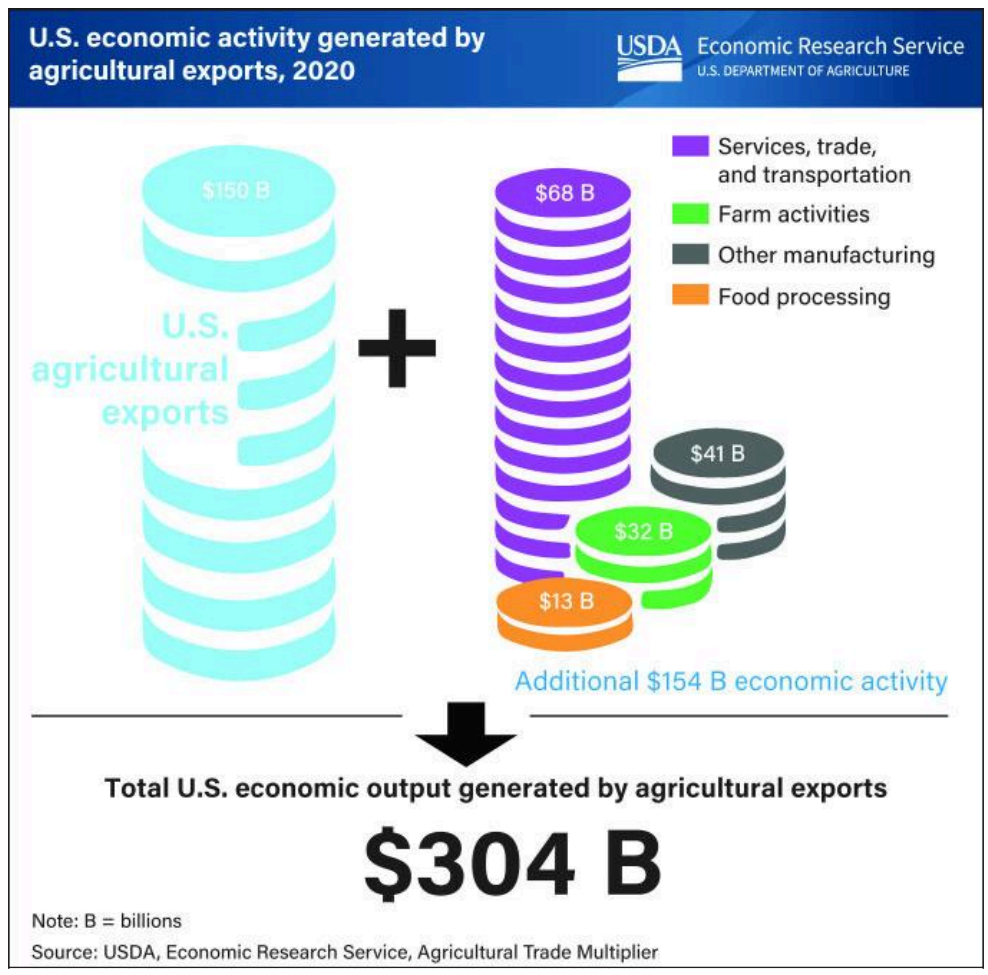
Exports constitute a significant market for U.S. farm and food products and send ripples of activity through the nation's economy. For instance, exports of grain first generate economic activity on the farm through purchases of inputs such as fuel and fertilizer, spurring additional economic activity in the manufacturing, trade and transportation sectors. Getting the grain to the export market requires transportation, storage and marketing, among many other services.

This additional economic activity is estimated annually by USDA's Economic Research Service (ERS) using an agricultural trade multiplier that measures the employment and output effects of trade in farm and food products on the U.S. economy.

Despite the onset of the COVID-19 pandemic in 2020, which depressed foreign sales for several months, exports rebounded starting in August and increased significantly afterward. U.S. agricultural exports valued at $150 billion in 2020 generated an additional $154 billion in economic activity, for a total of $304 billion in economic output.

This means that on average, every $1 of U.S. agricultural product exported generated a total $2.03 of domestic economic activity. No sector outside of crop and livestock production benefited more from agricultural exports than the services, trade and transportation sector, which generated $68 billion worth of additional economic activity.

On the farm, agricultural exports supported an additional $32 billion of business activity beyond the value of the agricultural exports themselves. — **USDA ERS**



Lawsuit threatened over Shasta River coho salmon

— ESA violation alleged

The Western Environmental Law Center (WELC) has notified the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) of the organization's intent to challenge its Shasta River Safe Harbor program in federal court.

On behalf of Friends of the Shasta River and the Environmental Protection Information Center, WELC asserts NMFS violated the Endangered Species Act (ESA) "by authorizing, approving, causing or otherwise carrying out agency actions that jeopardize the continued existence of coho salmon in the Shasta River, a species listed under the ESA as threatened with extinction."

WELC stated in the notification letter NMFS issued enhancement of survival permits under the Shasta River Safe Harbor Agreement to 11 ranches, two irrigation districts and the California Department of Fish and Wildlife (CDFW) in 2019.

In 1999, NMFS and the U.S. Fish and Wildlife Service adopted a safe harbor policy, which states if a landowner enters into a Safe Harbor Agreement and adopts "voluntarily conservation measures" that benefit a listed species, the landowner will not be liable for take if "the covered species later become more numerous as a result of the property owner's actions."

"The Shasta River Safe Harbor Agreements represent a fundamental misuse of the (ESA) and its permit provisions," said Sangye Ince-Johannsen, attorney at WELC, in a statement. "We intend to challenge a number of legal deficiencies underlying NMFS' decision to enter the agreements and grant the permits to the landowners. At bottom, it just doesn't pass the straight-face test to say that permits that allow landowners to continue to harm and kill threatened salmon somehow 'enhance the survival' of the species or provide a 'net conservation benefit.'"

WELC stated NMFS issued flawed biological opinions (BiOps) limiting the action area to the "covered areas" under the Safe Harbor Agreement and did not consider juvenile coho salmon rearing habitat, tailwaters of private landowners and the irrigation districts.

"In both BiOps, NMFS unlawfully subsumed permittees' existing and ongoing diversions and releases into the environmental baseline rather than analyzing their effects as causing or contributing to jeopardy. The permittees' existing and ongoing diversions constitute part of the action because the permits grant immunity from liability for take caused by these diversions," the letter read.

WELC further asserts in the 2020 BiOp NMFS expects 80 percent of permittees' voluntary conservation measures to be completed within five years, and the time frame ignores the three-year life cycle of coho. WELC stated it is unclear if any benefits from conservation measures will "materialize in time" to benefit the survival of coho salmon. WELC also claims that the 2020 BiOp measurements for temperatures were flawed, as the river warms as it flows from upstream monitor stations. The letter further states the adoption of water flows "are adequate at most for the survival of only some individuals, and not adequate to protect the survival or recovery of the population as a whole."

"Agencies first need to recommend and implement science-based flow and temperature standards sufficient for coho recovery in the Shasta River," said Bill Chesney, retired CDFW fisheries biologist and Friends of the Shasta River board member. "That needs to come first—not just as an afterthought once the safe harbor participants have already been given immunity for their destructive practices."

In a statement, Andrew Marx, board president of Friends of the Shasta River, said they are "reluctant" to take the notification action. Still, NMFS ignored their concerns and those of Tribal and conservation groups regarding Safe Harbor Agreements.

WELC said if corrections to the BiOp and the granted enhancement of survival permits are not made within 60 days of the letter, dated Feb. 24, they will pursue further legal action. — **Charles Wallace, *WLJ* editor**

NET PROFIT GENETICS ~ MORE THAN just EPDs!
• Genetic prepotency • Feed efficiency proven
SCHURRTOP RANCH
The TOP February and March bulls from 500 head on test!
175 Angus & Charolais Bulls ~ 25 Heifers
Friday, March 25, 2022 • 1 p.m. central
Tri-State Livestock • McCook, Nebraska
World Record Results! Schurrtop Bull Customers Achieved These Results:
2021 Beef Empire Days • Live & Carcass Show
Grand Champion Overall Heifer & Reserve Grand Champion Overall Steer
Schurrtop Efficiency Works!
Calf Fed Steers ~ Gain: 4.88 lbs./Day ~ Feed Efficiency: 4.54 lbs. feed/lb. Gain
Gain is HIGHER than #Feed/#Gain ~ Payweight: 1,499 lbs. $100/Head Carcass Premium
Pen of Customer Steers Fed ~ 100% Choice and Prime ~ $156/Head Carcass Premium
Cattle buyers from across the country are recommending Schurrtop Genetics!
40+ years of Feed Efficiency Testing bred in • 50+ years of Carcass, Gain & Performance Data
The majority of our sires are RFI or progeny tested for efficiency for generations
Thick, High Performance & Feed Efficiency Proven
Proud ranch partner with Sterling Silver Premium Genes. See our Ranch video at: www.schurrtop.com
Musgrave Feature - Thickness, depth, total performance, outcross genetics with all the extras!
NEWS FLASH!
SCHURRTOP'S LATEST CARCASS RESULTS:
321 Head
46% Prime ~
99% Choice of Higher
100% Schurrtop-sired cattle recently harvested (3,151 head averaged):
• 99% Choice or Higher
• 32% Prime
• Average Ribeye 14.4"
• 2.8 USDA Yield Grade
AND they averaged well over $100/head carcass premiums!
You CAN have muscle and marbling!
Real World Consistency and Quality!
20.8" Ribeye
Schurrtop Eaton Choice K717
Biggest ribeye, marbling, highest growth proven bull in the Entire Breed!
M6 New Standard - Multiple trait leader. Growth, carcass, calving ease. Sons and grandsons sell!
BPF Dr J 2110 - sire of
BPF Dr J 649 - A man amongst boys. Muscle, growth, feed efficiency proven. He does it all!
To view videos and catalogs, go to
www.schurrtop.com
Marty Schurr • (308) 362-4330
E-mail: marty@schurrtop.com
Ryan Schurr • (308) 320-4067
Kay Schurr • (308) 569-2520
Jerry Schurr • (308) 530-9652
E-mail: schurrtop@schurrtop.com
SCHURRTOP ANGUS & CHAROLAIS
Sure Performance Cattle
40842 Farnam Rd • Farnam, NE 69029
See Bull Videos Prior to Sale or Bid Live on Sale Day
DVAuction Broadcasting Real-Time Auctions
• BULLS SELL with a BREEDING GUARANTEE
• BULLS: Totally Ultrasound, Carcass, Performance and Fertility Tested
• Free delivery within 300 miles on bulls ≥ $3500 and assistance on all deliveries.

KS bill to expand rural veterinary loan program advances

— Shortage of vets

A bill to expand the Veterinary Training Program for Rural Kansas (VTPRK) at the Kansas State (K-State) University College of Veterinary Medicine (CVM) passed the House by an overwhelming majority of 115-6 and moved onto the Senate.

First introduced in 2006, VTPRK has an annual state appropriated loan program of $400,000, paid out to five students in $20,000 installments in each of their four years in school.

House Bill 2605 would change the loan appropriation amount from $20,000 to $25,000 per year and allow veterinary students past their first year to enter the program. Under the amended bill, the appropriated amount would become $500,000 and not be limited to five students.

The bill would also change the requirements for graduates to work in counties with fewer than 40,000 people—amending the current 35,000—or if the veterinary practice performed at least 50 percent of its business with any animal raised for human consumption or fiber products, such as cattle, hogs, sheep, goats and chickens.

> ***"Veterinary medicine, like all the medicines nowadays, (is) encouraging more specialization and wanting people to go into research, but what's being left behind is the excellent practitioner."***

The bill would create an advisory committee that would work in conjunction with K-State CVM to help select students to participate in the program and determine the program's needs. The committee would comprise two representatives from the Kansas Veterinary Medical Association (KVMA), including a former student who has participated in the program, two members appointed by the Kansas Department of Agriculture, two representatives from K-State CVM and the animal health commissioner.

At the bill's hearing in the House Agriculture Committee, some lawmakers had mixed reservations about the formation of an advisory committee.

Both Rep. Joe Newland (R-13-Neodesha) and Rep. Bill Rhiley (R-80-Wellington) had reservations about the advisory committee, with Rhiley asserting it would be responsible for picking "winners and losers," and Newland said it would circumvent the existing process.

Rep. Ron Highland (R-51-Wamego), a veterinarian himself, said the bill would "fine-tune" the selection process to include the advisory committee.

"Veterinary medicine, like all the medicines nowadays, (is) encouraging more specialization and wanting people to go into research, but what's being left behind is the excellent practitioner," Highland said. "We want to select the best and brightest, and we want them to be in our agriculture areas."

The Rural Veterinary Workforce Development Taskforce currently comprises K-State CVM and the College of Agriculture, along with agriculture stakeholders who advise the program.

Dr. Bonnie Rush, K-State CVM dean, said at the hearing there is a need for this program, as there is a shortage of veterinarians, with three jobs for every graduate. This is especially true with rural practitioners, as they are experiencing shortages.

Rush said VTPRK pays for 80 percent of an in-state student's tuition, as the CVM has not raised its fees in the last few years. Since the program's inception, Rush said they had 80 recipients of appropriations, and after four years, 98 percent have remained in a qualifying county, and 77 percent have stayed with the practice they joined after graduation.

Rush said implementing the program was "really smart," as they keep the best practitioners in Kansas.

"I'm proud of the stewardship of this program; I'm proud of the talent and the integrity of the graduates who fulfill this promise," Rush said.

Dr. Eileen Minnix, past president of the KVMA, said the changes to the program would enable more students to participate and provide flexibility to where students can practice. Minnix said KVMA hears from rural practitioners in larger counties who are large animal veterinarians about the need for veterinarians.

Minnix added that students graduating with less debt provides the opportunity to buy into a practice. If a rural veterinarian was retiring and could not sell their business and was forced to close the practice, by increasing the number of students, that situation would be less likely, and the community would not lose that service.

Matt Teagarden, CEO of Kansas Livestock Association (KLA), appeared before the committee on behalf of KLA and Kansas Farm Bureau and said the bill would implement several stakeholder enhancements that would ensure the program's success.

"Providing for the well-being of their animals is the top priority of livestock producers," said Teagarden. "While livestock producers provide the day-to-day care, it is important to have access to a veterinarian professional when treating and preventing disease."

Teagarden pointed to a survey that showed 60 percent of livestock producers reported a shortage of veterinarians, and that is what members of both organizations are reporting as well.

Teagarden stated the program helps ensure students are not only effective veterinarians, "but effective members of their community and successful business operators."

Students currently participating in VTPRK testified before the committee, with Rachel Jones of Liberal, KS, saying that within hours of posting her resume to the American Veterinary Medical Association job board, she received "a flood of offers" throughout the country, but she is committed to Kansas. Jones noted that the temptation to leave the state for those not participating in the program is evident. There are 13 students with roots in the state who would be "exceptional candidates" for the program, but it is limited to five. Jones also said the program offers support from past graduates and provides networking opportunities.

Past students also testified on the success of the program. Dr. Garrett Stewart of Washington, KS, said VTPRK enabled him to stay in the state despite being offered positions with higher pay out of state. Stewart said it is a good return on investment, with past recipients contributing to the local economy and staying where they have roots. He encouraged the program's expansion.

Four veterinarians formally in VTPRK and Kelsey Olson, deputy secretary from the Kansas Department of Agriculture, provided written testimony in favor of the measure. There was no testimony opposing or neutral on the bill.

As of *WLJ* press time, the bill was in the Senate Committee on Agriculture and Natural Resources, and a hearing was scheduled for March 11. — **Charles Wallace, *WLJ* editor**



UNL will build Small Meat Processing Plant of the Future

— Assist small processors

The University of Nebraska-Lincoln (UNL) announced plans to develop the Small Meat Processing Plant of the Future during a roundtable discussion on Feb. 26 at the Nebraska Association of Meat Processors' annual convention in Grand Island, NE.

"The Small Plant of the Future will be a multi-disciplinary center to strengthen the meat industry in the region," said Clint Krehbiel, head of UNL's Animal Science Department, during the roundtable. The plant, which will be located alongside existing UNL animal science facilities, will serve as a regional processing hub for local cattle producers, as well as a prototype for other small and very small facilities.

As part of the initiative, UNL will look at making equipment upgrades to the Loeffel harvest and processing facility on East Campus, hire and train staff to maintain regular slaughter operations, and establish a suite of resources available to those looking to set up or expand small processing operations. The project is structured to have a multiplying effect across the region.

Krehbiel said that the COVID-19 pandemic illuminated issues that small meat processors had faced for years, including the insufficient capacity of small processors to keep up with rising demand, barriers to implementing new technologies and widespread workforce shortages. The Small Plant of the Future aims to address those issues.

Multiple processors at the roundtable raised the issue of labor and staffing challenges. To help strengthen the workforce, the Small Plant of the Future will include a set of workforce development programs, including an internship program that will pair meat science students with small meat processing businesses across the state.

UNL continues to look at other ways to integrate both degree and non-degree programs into its small plant initiative. This may include training programs, including workshops for employees new to the meat processing industry, partnerships with community colleges, continuing education opportunities for more experienced meat processors and more.

"UNL has been a leader in meat science for over 100 years," Krehbiel said. "We want to be part of the solution."

Representatives from USDA's Agricultural Marketing Service and Food Safety and Inspection Service were present at the roundtable; USDA Rural Development personnel joined remotely. The event came just two days after the USDA announced it was making available $215 million in grants and other support to expand meat and poultry processing options, strengthen the food supply chain and create jobs and economic opportunities in rural areas. UNL hopes to look to this program as one potential source of funds; other fundraising efforts for the plant are already underway.

The Small Plant of the Future concept comes at a time when the university has already committed millions to building and expanding existing UNL food facilities, including the Food Processing Center and the Feedlot Innovation Center, said Mike Boehm, vice president for Agriculture and Natural Resources at the University of Nebraska and Harlan Vice Chancellor for UNL's Institute of Agriculture and Natural Resources.

"The Small Plant of the Future is a natural extension of what we've been building at a time when the industry is in dire need," Boehm said. "The Small Plant of the Future is a dream initiative for a land-grant institution like UNL—one that marries academic programs with hands-on application and deep community partnerships that strengthen the region's economy."

Chad Lottman, who attended the roundtable, said the discussion on workforce development caught his attention. Lottman and his wife, Courtney, own Landmark Snacks in Beatrice, NE, which produces meat sticks and other processed snack foods and employs around 200 people. Prior to starting that business, the Lottmans ran C&C Processing, a small meat locker in Diller. Processors of all sizes are struggling to find reliable, qualified employees, he said.

"We need a skilled workforce," he said.

Lottman said an internship program in particular would be valuable to his business, which already employs several UNL graduates in its food safety division. For smaller processors, he said, help implementing new software programs and other technologies would be valuable.

"For the small processor, that's difficult," Lottman said.

Krehbiel said he anticipated that some workforce development programs could be in place by fall of 2022, with the addition of more programming and facility improvements incrementally over the next several years. — **Cara Pesek, UNL Institute of Agriculture and Natural Resources**

Boost cattle's reputation with preconditioning

Our customers (stocker operators and feedlots) want matched sets of calves that are weaned, castrated, dehorned, familiar with water and feed sources and immunocompetent. What is "immunocompetent"? That is simply a fancy way of saying that the calves can respond appropriately to stressors and disease challenges, and if they get sick, their immune system will be able to work with the antibiotics we provide to answer the challenge.

Calves need to have a sound, balanced nutritional program and be free from internal parasites in order to have an immune system fit enough to withstand the marketing and transportation channels of our beef production system. Bob LeValley, Beef Quality Assurance coordinator for the Oklahoma Beef Council, said, "From a Beef Quality Assurance perspective, following approved BQA production practices associated with preconditioning should result in cattle with few carcass defects. This should lead to higher quality, higher value cattle."

Research at Oklahoma State University (OSU) in the late '90s showed that finished steers treated for bovine respiratory disease gained less and had lighter carcasses, costing the feedlot operator anywhere from $20/head for steers treated only once to $75/head for steers that were treated multiple times. The reduction in returns is related to reduced performance and carcass quality (79 percent), and only 21 percent of the reduction in profit was related to medicine costs.

Other research conducted at OSU showed that gains, feed efficiency, ribeye area and marbling decreased significantly as the number of treatments for BRD increased.

There is variation in the thoughts of what constitutes preconditioning. There are many commercial and academic entities with preconditioning programs. The Oklahoma Quality Beef Network (OQBN) Vac-45 program is one example. The OQBN Vac-45 program requires:

- The calves must be weaned for 45 days or longer.
- The calves must be ranch raised (not purchased and put together).
- Bull calves must be castrated and healed.
- Calves must be dehorned and healed.
- Calves must be identified with the OQBN ear tag.
- Calves must have been vaccinated in accordance with preset protocols.

For the OQBN, there are three options for vaccination protocols depending on the timing of vaccine delivery. The first option includes a respiratory disease vaccine, including infectious bovine rhinotracheitis, bovine viral diarrhea, bovine respiratory syncytial virus and parainfluenza type 3, and clostridial/blackleg at branding and again at weaning, with the addition of a Pasteurella pneumonia vaccine.

The second option has the same vaccine requirements, but the first vaccination can occur two to six weeks prior to weaning, with the second booster vaccination occurring at weaning. With the third option, the initial vaccination can occur at weaning and the booster 14 to 28 days post-weaning.

Buyers are taking notice of the benefits of purchasing preconditioned calves. Since 2011 in Oklahoma, OQBN certified calves have received an average premium of $12.62/cwt (ranging from $10.37/cwt in 2013 to $19.20/cwt in 2014) over calves marketed at the same sale with no preconditioning. From 2012 to 2016 in Alabama, calves sold in a certified preconditioned sale at 500 pounds brought a $32/cwt premium over non-preconditioned calves, while calves sold at 700 lbs. only had a premium of $21/cwt for preconditioned calves.

While it is true that we probably should precondition cattle because it is the right thing to do for the calf, the economics of preconditioning indicate it can be profitable for the cow-calf producer. If producers can efficiently feed calves to gain 1.75-2 lbs. per day, the additional weight sold, reduction in shrink and the increased value of the calf will more than cover the cost.

For more details and to enroll in the OQBN program, go to www.oqbn.okstate.edu. — **Paul Beck, OSU beef cattle nutrition specialist**

Want Good Bulls?

First, pick the right people.

Bob and Judy Prosser are third-generation Arizona ranchers who understand commercial cow-calf operations.





Then, pick the right cows.

This young female is on her third calf with a 365-day interval. She weaned more than 50% of her body weight and bred back.

THE BULLS WILL BE GOOD!



95 Red & Black Balancers Sell



50 Red & Black Southern Balancers Sell

The Bar T Bar herd leads the breed in efficiency – ranking in the lowest 10% for Dry Matter Intake and in the Top 20% for ADG. *We are breeding cattle that eat less and gain more!*

More Than 75 of the Bulls Will Be *Sleep-at-Night* Heifer Bulls!

175 Bulls Sell!

Bar T Bar Ranches Annual Bull Sale

April 9, 2022, at 1:00 p.m. (PDT)

Southern Balancers, Balancers, Gelbvieh & Angus

Crater Ranch Headquarters · Winslow, AZ

Superior Productions 800.422.2117

$PROFIT Cows That Work! Steers That Pay!

BAR T BAR RANCHES

Bob and Judy Prosser

(928) 289-2619 • Cell: (928) 380-5149

Email: info@bartbar.com

FINDING THE BALANCE

EFFICIENCY PERFORMANCE

BAR T BAR RANCHES

"A CULTURE OF STEWARDSHIP"

Leachman Cattle of Colorado

Lee Leachman, Herd Consultant

(970) 568-3983

Jerrod Watson, Customer Service

(303) 827-1156

Irrigation boosts western Kansas land values by $3.8B

— Ogallala Aquifer

A recent report of the value of water in western Kansas by two Kansas State (K-State) University agricultural economists has concluded that land values in that part of the state are $3.8 billion greater today than they otherwise would be without access to the Ogallala Aquifer.

"It's a large, substantial number, and it provides evidence of just how valuable irrigation is in western Kansas," said Gabriel Sampson, an associate professor in K-State's Department of Agricultural Economics.

The study takes a look at ways water is captured in order to make a judgment on its value. In this case, farmers draw water from the aquifer to irrigate farm crops and raise livestock; in 2013, the USDA's National Agricultural Statistics Service listed sales from eight western Kansas counties overlying the aquifer at $4.7 billion, or about one-third of total agriculture revenue in the entire state.

"Putting a value on water is a challenge because with other commodities, we have a price for those," said Nathan Hendricks, a professor of agricultural economics. "If you want to know the value of corn or wheat, those are traded, and we have a price to assess their value.

"Water is not traded, per se, because it's very difficult to make trades, so there's not a well-functioning market for water in western Kansas. It makes it more difficult to place a value."

The two economists studied the value of land in western Kansas counties overlying a portion of the Ogallala Aquifer, also known as the High Plains aquifer. In a 2019 study, they reported a difference of 53 percent in price between nonirrigated and irrigated land.

They arrived at the $3.8 billion added value on irrigated land by assuming an average price of $1,662 per acre on nonirrigated land and approximately 2.57 million acres irrigated in Kansas counties overlying the aquifer.

"Any premium the irrigated land has over otherwise similar nonirrigated land provides evidence to the value that buyers and sellers put on irrigation production," Sampson said.

The Ogallala Aquifer in western Kansas is considered North America's largest aquifer, stretching more than 175,000 square miles under eight states. Farmers' ability to pump water from the Ogallala—which has been going on for nearly 100 years—is considered a major reason for the transformation of a dry wasteland into America's breadbasket.

The resource, however, is finite. And in another part of their study, Hendricks and Sampson were able to determine a market value for water coming out of the aquifer.

"One concern with the aquifer is depletion over time," Sampson said. "The best way to look at the valuation that depletion has is to look at small changes in water stocks over time. What we look at is what's called saturated thickness, which is a common measure of groundwater stock. We looked at the difference in irrigated land values between parcels that differ only in their groundwater stock under the parcel."

What they found is that a 1-foot change in the groundwater stock is associated with a change between $3-15 per acre in the value of irrigated land.

Calculated out over 2.57 million acres, the market valuation associated with a uniform 1-foot increase in saturated thickness of the aquifer is between $8 million to $41 million.

"Hydrologists have created predictions of what saturated thickness is likely going to do leading up to the year 2050, assuming no other measures are taken and that we continue on the path that we are on," Hendricks said.

"Under that simulation, we expect that in Kansas, the returns to land are expected to decrease by $34.1 million annually by 2050, compared to what those are today, because we are going to have less saturated thickness in 2050."

Hendricks added that the situation may differ across parts of Kansas, but "those places that are already significantly depleted (are) where they are going to feel the hardest impacts of continuing depletion."

The two agricultural economists also compared the impact of water availability on livestock production in western Kansas, looking at counties inside the aquifer versus those just outside it. One measure indicated that having access to the aquifer increased animal sales by $2.4 billion annually in Kansas and increased the number of cattle on feed by 2.4 million head.

"From a policy perspective, it's useful to understand the value of water because we can balance that against investments made for water conservation strategies," Sampson said. "And again, recognizing these numbers provides evidence that it's important to recognize the value of irrigation accessibility in Kansas."

The full report, titled "Value of Groundwater in the High Plains Aquifer of Western Kansas," is available online at AgManager.info. — **K-State Research and Extension**



Spring runoff should resolve reservoir deficit

POWELL
(from page 1)

temporary dip below 3,525 feet because the spring runoff will resolve the deficit in the short term," said BOR Upper Colorado Basin Regional Director Wayne Pullan. "However, our work is not done. Lake Powell is projected to drop below elevation 3,525 feet later this year. Reclamation and the Upper Basin states continue to collaborate with stakeholders and partners to develop and implement additional actions later this year if appropriate."

In 2021, the Blue Mesa Reservoir in Colorado and the Flaming Gorge Reservoir in Wyoming released 161,000 acre-feet of water to preserve water levels in Lake Powell. BOR announced in January it is holding back 350,000 acre-feet of water in Lake Powell that would normally flow to Lake Mead from January 2022 through April 2022 for release later in the year.

Dave Kanzer, director of science and interstate matters for the Colorado River Water Conservation District, told the Colorado Sun that Lake Powell dropping below 3,525 feet is "very significant."

"It's something the collective 'we' in the basin have been trying to avoid, unfortunately unsuccessfully," Kanzer said. "It's another in a series of wake-up calls for the basin."

According to BOR, the Upper Basin states of Colorado, New Mexico, Utah and Wyoming, with the assistance of the Upper Colorado River Commission, are preparing the Drought Response Operations Plan that will propose additional actions to help protect Lake Powell elevations in 2022 if necessary.

In February, an informational meeting was conducted on the draft, available later this spring. The draft framework does not contain any operational proposals. Those will become available when the agency gets a better perspective on the hydrology for the region. Once finalized, the plan will include operational adjustments, releases and recovery within the Colorado River Storage Project's initial units of the Flaming Gorge, Aspinall and Navajo reservoirs.

Rod Smith, an attorney with the Department of the Interior, said at the meeting the drought response is designed to protect water levels at Lake Powell while also looking at how the reservoirs are managed, which includes the environmental and recreational impacts.

BOR officials stated they would continue to monitor snowpack levels and runoff projections, working with stakeholders to protect the water levels at Lake Powell and Lake Mead. — **Charles Wallace, *WLJ* editor**

Beware drought-loving insects this spring, summer

— Three could dominate

For some insects, another year of hot, dry weather could create the perfect conditions for a lively family reunion.

Expect grasshoppers, spider mites and soybean aphids to thrive in drought-stricken areas this spring and summer, crop scientists warned growers in a University of Minnesota webinar on March 2. Not only do these insects do well in drought-stressed crop fields, but—as cold-blooded critters—high temperatures speed up their development.

As temperatures rise, aphids and spider mites can shorten the time between new generations, which allows their populations to ramp up quickly, said Ian MacRae, Extension entomologist with the University of Minnesota.

Spider mites, aphids

Soybean aphids can do well in hot, dry conditions, but they run into natural limits. They like heat and speed up reproduction in temperatures ranging from 75-80 F. But they slow down as temperatures crest 90 F, and in cases of severe drought, colonies will suffer, noted Bruce Potter, University of Minnesota Extension integrated pest management specialist. As soybean leaves flip upside down to try to conserve water in scorching afternoon hours, they expose aphids attempting to shelter on those undersides, he noted.

The real key to a successful soybean aphid invasion occurs in the springtime, when the aphids move from their overwintering home in buckthorn plants into soybean fields. If they experience warm, dry conditions at that time and find decent soybean canopies, they can take off, Potter noted.

"Usually by June, we have a pretty good idea how well that movement into soybeans is happening," he said.

In long, hot summers, aphids and spider mite infestations can overlap and codevelop, Potter added. "You might start with soybean aphid problems and transition into spider mites later on," he said. "And in my experience, the spider mites usually win out."

That's because spider mites love a good late-summer roasting. As temperatures crest 75 degrees, it takes only five days for a hatched mite to become an adult. They also favor oven-crisp levels of dry air, MacRae said. "Spider mites actually prefer to reproduce as it gets drier," he noted.

The heat also helps mites and aphids by hampering the naturally occurring fungi in the field that prey on insect pests, MacRae noted. "The fungal diseases that control insects are cut down, so you get a larger starting population," he explained.

Watch for spider mite populations carefully as crop fields approach reproduction stages, added Potter. "Once those plants are in reproductive stages and facing hot, dry weather, that's when things really take off," he warned. The mites set up camp in soybean canopies and suck the sap out of leaves, leaving a bronzed, speckled appearance. — **Emily Unglesbee, DTN staff reporter**

As temperatures rise, aphids and spider mites can shorten the time between new generations, which allows their populations to ramp up quickly.

— Grasshoppers

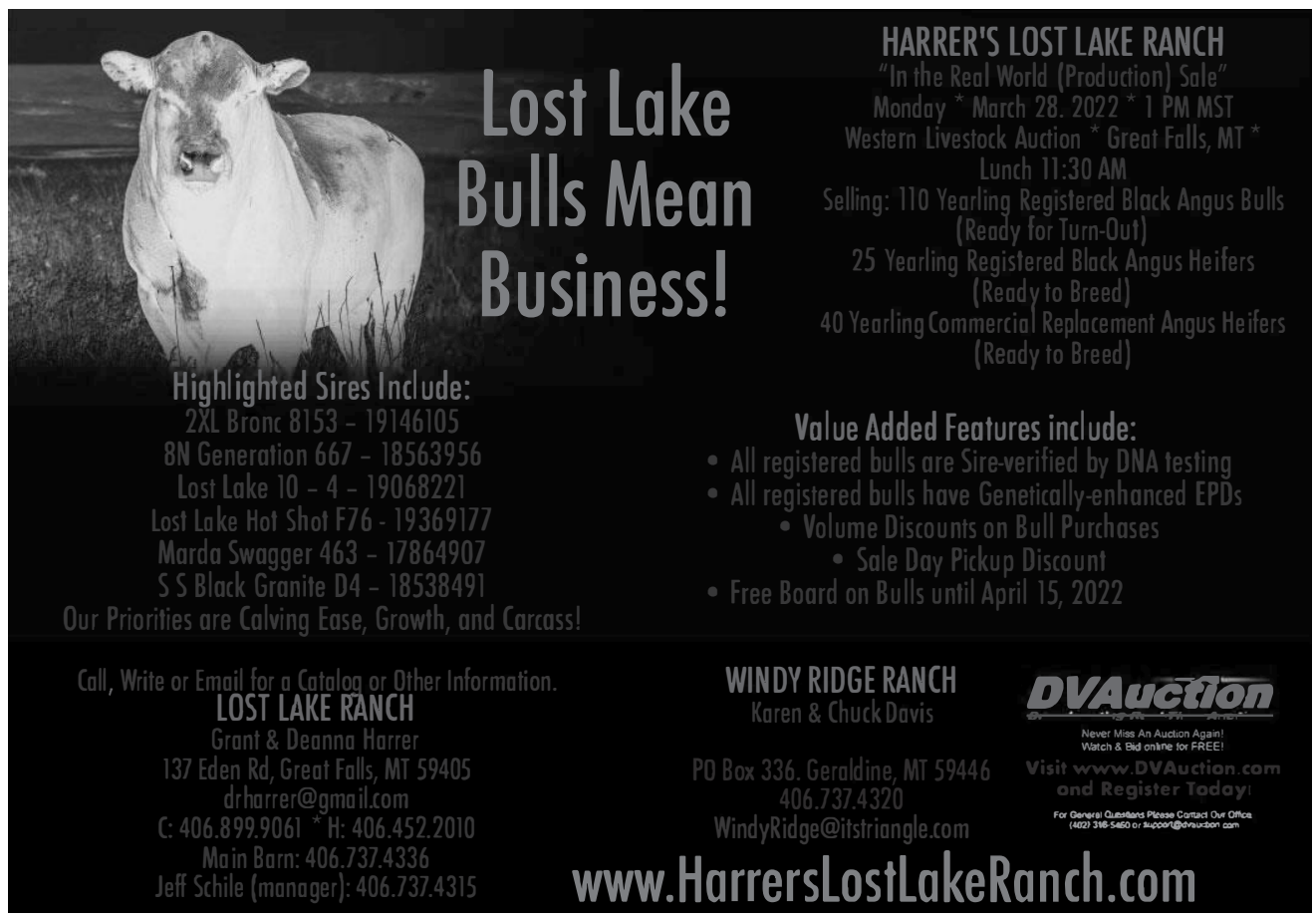
Grasshoppers are especially prone to large outbreaks after consecutive years of dry weather, MacRae noted.

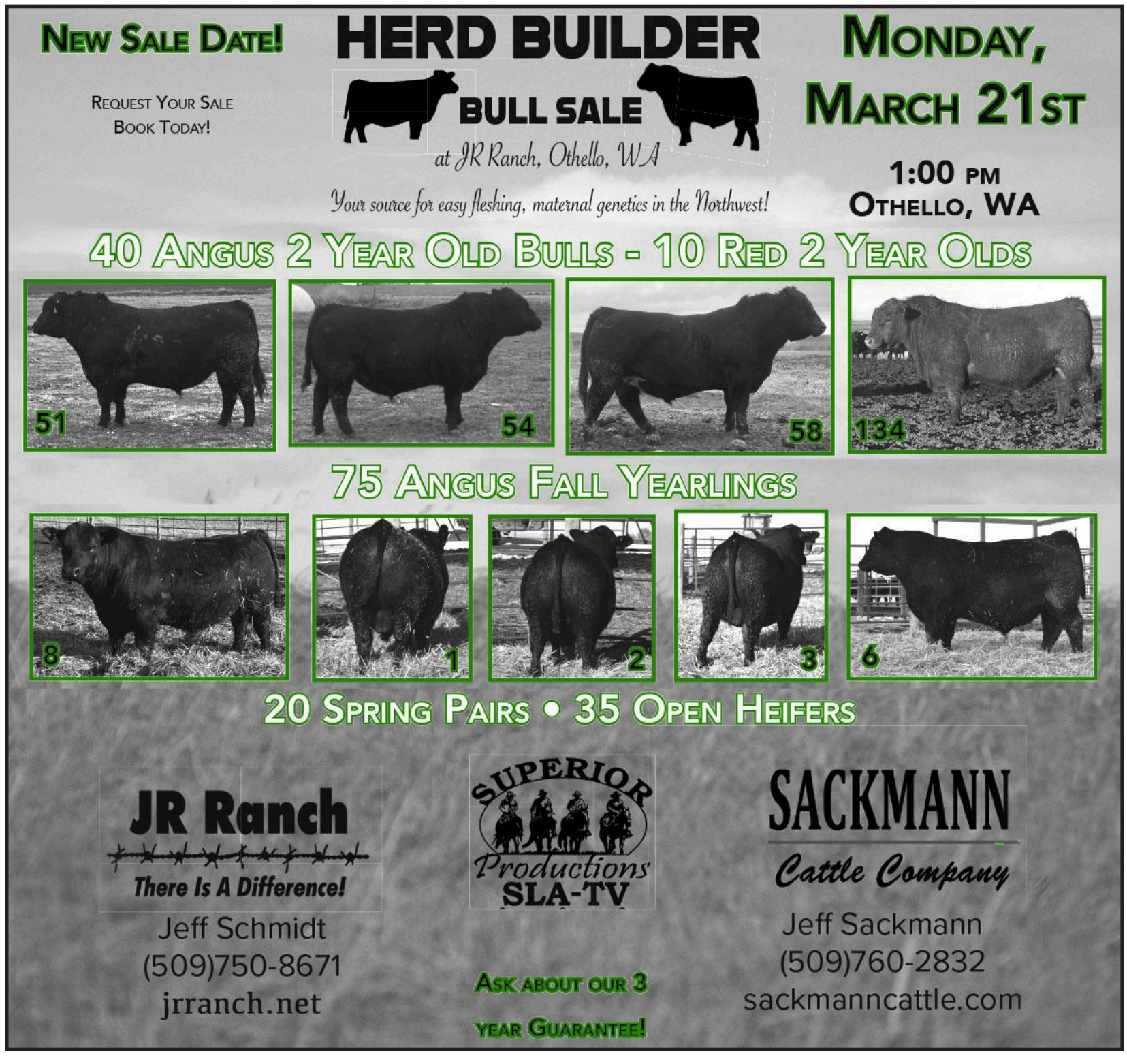
That's because, unlike their aphid and mite colleagues, grasshoppers can only develop one new generation of insects a year. It takes time for them to build to damaging levels, and just one year of unfavorable conditions could disrupt that process.

Unfortunately for regions like the Northern Plains, which have seen two dry seasons in a row, farmers there may be poised for a serious outbreak of this fast-moving defoliator.

"If we do have another warm, dry spring, we're going to have a lot of grasshoppers," MacRae warned, noting that a lot of egg-laying occurred in the fall in northwest Minnesota and the northern Red River Valley.

"There's a lot of eggs out there, and we had good snow cover, and they are also deep enough in the soil that they are not going to be affected by the low temperatures we had this winter," he added. "So, if we have a dry spring, we're probably going to have a successful hatch."





Have you set up your free digital access?



Get instant access to *WLJ* online, anytime.

When you purchase a print subscription to *WLJ*, you also have unlimited free access to ***wlj.net***!

By registering your account at *www.wlj.net*, you can read the full content of the print edition on your smart phone, iPad or computer.

We make it easier than ever to get the information you need to succeed.

Questions? Call us at 800-850-2769.

OR Legislature establishes Elliott State Research Forest plan

— OSU-Cascades district

The Oregon Legislature's 2022 session ended with approval of several key Oregon State University (OSU) initiatives, including conversion of the Elliott State Forest in southwestern Oregon into an OSU-managed research forest, funds to help launch an innovation district at OSU-Cascades in Bend, and a housing project serving OSU's marine studies programs and the Hatfield Marine Science Center (HMSC) in Newport.

Lawmakers also invested in higher education programs to assist students transitioning to four-year universities in Oregon and to provide college expense support for enrolled Tribal members. The Legislature also reestablished portions of the Forest Products Harvest Tax, which funds programs in OSU's College of Forestry.

"I'm very grateful for the support of public higher education and Oregon State University initiatives by Gov. Kate Brown (D) and Oregon legislators," said OSU Interim President Becky Johnson.

"Continued state investment in supporting student success will benefit thousands of students across Oregon. Within Oregon State University, legislative support for a new innovation district at OSU-Cascades; establishment of an Elliott State Research Forest; assistance for student, faculty and research partner housing at the HMSC; and investments in many other university education, research and Extension programs will serve Oregonians and advance scientific discovery and our state's economy. The Elliott State Forest consists of 82,520 acres in Douglas and Coos counties between Coos Bay and Reedsport in the Oregon Coast Range. It was designated in 1930 as Oregon's first state-owned forest.

The legislative action converts the state forest into a research forest that, with the approval of the OSU Board of Trustees, would be managed by the university. Following direction provided by the State Land Board in late 2019, OSU and the Department of State Lands began exploring how to turn the Elliott into a research forest. Since then, university leaders have worked with the Department of State Lands and environmental, wildlife, forest, Tribal and community stakeholders to create a framework for a research forest.

The bill approved by the Legislature includes the creation of an independent state entity that would own and have fiscal responsibility for the forest while contracting with OSUto conduct research and manage the forest. The OSU Board of Trustees has until July 1, 2023, to authorize the university's role as forest manager. If operated as a research forest, the Elliott State Forest would remain open to public access.

The Legislature approved $10 million for helping to mitigate a former Deschutes County construction landfill intended to be the site of an OSU-Cascades innovation district. The 24-acre innovation district is planned within the 128-acre branch campus to include academic space, light industrial space and office space and to bring university researchers and businesses together to accelerate the creation of technology, provide hands-on opportunities to enhance students' career readiness and contribute to the region's economy and workforce.

The concept of an innovation district was approved in 2018 by the city of Bend as part of the campus planning effort. The first phase of the district is anticipated to encompass 8 acres, and the $15 million cost of mitigation will be paid for by state and university funds.

The Legislature also made significant new higher education investments in students.

The Strong Start program, which bridges students' transition from high school to college, will receive $7.5 million. This marks the second year of funding for individual programs at Oregon's public universities that seek to assist students as they transition to university life, provide tools for academic success and help students successfully progress to graduation.

The program addresses challenges students face navigating the transition from high school to college, which university leaders say have been exacerbated by the COVID-19 pandemic.

Additionally, Oregon's Higher Education Coordinating Commission will receive $19 million for a Tribal Access Grant program, which will fund most undergraduate and graduate higher education expenses of enrolled Tribal members. A recent report from the Higher Education Coordinating Commission shows Tribal students face significant challenges in an educational system with extensive systemic barriers.

The $6.5 million approved for housing at the HMSC will support students participating in OSU's marine-related programs and activities, as well as visiting researchers and employees of HMSC's state and federal partner agencies located in Newport. The housing will be built on approximately 5 acres of OSU-owned property in south Newport.

The Legislature approved a bill that reestablishes portions of a Forest Products Harvest Tax, supporting OSU's Forest Research Laboratory. Established by the Legislature in 1941, the laboratory is located within the College of Forestry and develops understanding and innovation about forest ecosystems, forest management and renewable materials from forests. The tax also will contribute to the college's education fund.

The Legislature also approved:

- $30 million in bonding authority for deferred maintenance investments at Oregon's seven public universities.
- $1 million for the Oregon Bee Project, a cooperative effort between the OSU Extension Service, the Oregon Department of Agriculture and the Oregon Department of Forestry. The project was initiated in 2017 to support pollinators and pesticide use education programs.
- $350,000 for maintenance and repairs of the Pacific Storm, an 84-foot research vessel operated out of Newport by the Marine Mammal Institute, which is based in OSU's College of Agricultural Sciences.
- $250,000 for improvements and upgrades at the Eastern Oregon Agricultural Research Center in Union. The center is part of the College of Agricultural Sciences' Agricultural Experiment Station network.

— **OSU Extension**

MAGNESS BEEF BULLS
Western Slope
ANNUAL BULL SALE
SAT., APRIL 2, 2022
1 P.M. MDT · LOMA, COLORADO
Sale Location: Loma Livestock, 1369 12 1/2 Rd., Loma, CO 81524, 970-858-9988

OFFERING 80+
REGISTERED LIMOUSIN & LIM-FLEX
SPRING YEARLING BULLS



MAGS Jiovani 242J
2/9/21 · Polled · Red · 51% Lim-Flex
Wulfs Emprize 2424E x MAGS Favorable 125F
CE: 11 BW: 1.8 WW: 90 YW: 140 MK: 24 CM: 8 SC: 1.32
DC: 14 YG: -0.18 CW: 57 RE: 1.03 MB: 0.49 $MI: 77
Act. BW: 77 • Adj. WW: 846 • Adj. YW: 1,327
UREA: 16.50 • UFAT: 0.23 • UIMF: 3.210



MAGS Juan In A Million 1103J ET
1/11/21 · Homo Polled · Homo Black · 50% Lim-Flex
MAGS Federal Reserve ET x MAGS Eadie
CE: 11 BW: 2.2 WW: 80 YW: 118 MK: 19 CM: 7 SC: 1.00
DC: 12 YG: -0.11 CW: 36 RE: 0.52 MB: 0.55 $MI: 75
Act. BW: 80 • Adj. WW: 718 • Adj. YW: 1,247
UREA: 11.52 • UFAT: 0.34 • UIMF: 3.305

Invest In The Program · Breed Leading Calving Ease. · Performance & Marbling Genetics.
0% Financing · Pay 1/3 of purchase price at the sale. · Balance due October 15, 2022.
Volume Purchase Program · 5+ Bulls = 5% Discount · 10+ Bulls = 10% Discount
Complete Documentation · Ultrasound, Performance, Fertility & Pap Tested.
Online Viewing and Bidding Available at superiorclicktobid.com

MAGNESS LAND And CATTLE
Platteville, Colorado
GARY MAGNESS, OWNER
John Pence, 970-396-3584
Austin Gottschalk, 970-396-0115
VIEW SALE VIDEOS ONLINE AT
WWW.MAGNESSCATTLE.COM

Marketing Team
SALE MANAGEMENT: MC Marketing, Kiley - 402-350-3447 • Wiley - 320-267-0751
AUCTIONEER: Ronn Cunningham, 918-629-9382 • CONSULTANT: Grassroots Consulting, 515-229-5227

Ultrasound and genomic data enhances EPDs

"Seedstock breeders either love the phenotype data because that's the real data, or they love the genomic data because nobody can mess with it because that's blood. The reality of the situation is they just have to work together to get us where we continue to have accurate genetic evaluations," said Kelli Retallick, Angus Genetics Inc. genetic and genomic program director.

Retallick gave her presentation titled "Impact of Ultrasound, Carcass and Genomic Data on Body Composition Expected Progeny Differences" during the Beef Improvement Federation (BIF) Symposium June 24 in Des Moines, IA.

Through her presentation, Retallick discussed the reality of today's beef market and how ultrasound data improves performance data.

Today's beef market

The beef market is constantly changing due to different consumer demands and genetic improvements. In 2006, 37.5 percent of beef carcasses were graded USDA Select, and only 6.6 percent of carcasses were eligible for branded beef programs such as Certified Angus Beef. For carcasses to be eligible for these branded beef programs, they must grade in the upper two-thirds Choice category.

In 2020, only 14.4 percent of carcasses were graded USDA Select, with an increase to 22 percent of carcasses being eligible for Certified Angus Beef. Consumers are demanding higher quality beef products, and the beef market has implemented production practices to meet the demand.

"The beef market has shifted from a commodity driven market to a quality driven market," Retallick explained.

Ultrasound data allows producers to have a look at carcass data before the animal arrives at the packing plant. This data can be used to increase most carcass-related EPDs more than 10 percent. Results from a study show that ultrasound carcass data would increase the accuracy by 14 percent for marbling, 16 percent for ribeye area, 17 percent for carcass weight and 21 percent for fat EPDs for young, genotyped sires.

Carcass EPD accuracy would increase by more than 10 percent for older sires with more progeny carcass data. Combining ultrasound data with genomics would allow producers to improve animal performance by utilizing more accurate genetic data. This information would allow the industry to improve faster and more efficiently.



Kelli Retallick **BIF**

"Carcass ultrasound data is important," Retallick said. "Ultrasound data has trended downward in recent years as genomics seem to have replaced smaller ultrasound contemporary groups."

To watch the full presentation, visit youtu.be/cScicWJflKE. For more information about the symposium and BIF, including additional presentations and award winners, visit BIFSymposium.com. — **BIF**

Dry spell, drought deepen across Texas

Soil moisture levels continue to decline in most areas of the state after a months-long dry spell as warm-season crop plantings and preparations increase.

Texas A&M AgriLife Extension Service agents and specialists have reported critically dry conditions in many parts of the state over the last several weeks. The U.S. Drought Monitor shows more than 93 percent of the state is in abnormally dry conditions to extreme drought, and nearly 81 percent of the state is dealing with moderate to extreme drought.

Plantings and fieldwork that require rainfall are being delayed in the hopes that moisture will arrive sooner rather than later. Cool-season forage and grain crops were failing in some parts of the state or are in poor condition and progressing slowly due to lack of moisture.

The lack of forage and dependence on heavy supplemental feed rations were driving deeper and deeper herd culls for cattle producers in some areas.

"It is very, very dry," said Jourdan Bell, Ph.D., AgriLife Extension agronomist. "There is no surface moisture, and very few fields have subsoil moisture. We have had negligible moisture this winter."

Most of the Panhandle is experiencing extreme drought, according to the Drought Monitor.



Laura McKenzie/Texas A&M AgriLife
Irrigation pivots are running in many parts of the state in an attempt to provide some pre-planting moisture to soil following a winter dry spell

Historic winter dry spell

John Nielsen-Gammon, Ph.D., state climatologist and professor in the College of Geosciences' Department of Atmospheric Sciences at Texas A&M University, said much of the state has been very dry since fall, and the rain outlook does not look promising.

Over the past 120 days, Nielsen-Gammon said much of the state had only received 25 percent of its average rainfall for that period. Several cities also reported some of the driest periods between November and March on record.

Amarillo reported 0.5 inches of rainfall during that time, which represents the fourth driest winter over the past 131 years. There was a drier stretch during the same time in 2017-18.

Midland experienced the fifth driest period on record, with 0.3 of an inch, and Waco was the third driest in 121 years, with 2.94 inches of rainfall.

Cities like Houston and Beaumont received much more rain, but it was still the driest spell between November and March on record for Beaumont, with 5.81 inches.

"Dry is relative in Texas," he said. "A few swaths of the state have done OK, but most of the state has been dry since the widespread spring and summer rains ended last August."

La Niña continues

Nielsen-Gammon said the La Niña weather system, which typically delivers below-average precipitation to much of Texas, continues to hang on. Most forecast models expect the La Niña system to enter a neutral period by April.

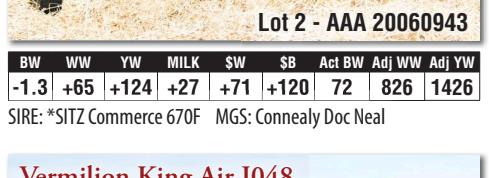
But by April, weather in Texas is becoming difficult to forecast beyond seven to ten days. Expectations for April through June are that the state will receive below-normal rainfall, but Nielsen-Gammon said the same was expected last April through June prior to the widespread and consistent rains.

He said the upcoming weeks do not look promising for most of the state either. Much of the state will not see much moisture. In eastern Texas, expectations are for scattered, mostly light rains, though a cold front later in the week could help maintain soil moisture.

"There are a few storm systems coming through, but it doesn't look promising for most of the state," he said. "After that, it's hard to tell." — **Texas A&M AgriLife Extension**

Vermilion Ranch 5,500 ANGUS SELL

Vermilion Commerce J154



BW	WW	YW	MILK	$W	$B	Act BW	Adj WW	Adj YW
-1.3	+65	+124	+27	+71	+120	72	826	1426

SIRE: *SITZ Commerce 670F MGS: Connealy Doc Neal

Vermilion King Air J048



BW	WW	YW	MILK	$W	$B	Act BW	Adj WW	Adj YW
+.4	+80	+149	+31	+87	+159	72	701	1295

SIRE: *Connealy King Air MGS: Vermilion Playmaker Y290

Vermilion G017 Bomber J075



BW	WW	YW	MILK	$W	$B	Act BW	Adj WW	Adj YW
+1.7	+78	+141	+27	+78	+153	82	804	1422

SIRE: *Vermilion Bomber G017 MGS: #*Connealy Spur

Spring Performance Sale

THURSDAY, MARCH 24, 2022
Heifers sell at the South Pryor Development Center, Billings, MT - 12:00 NOON

FRIDAY, MARCH 25, 2022
Bulls sell at the Public Auction Yards, Billings, MT - 11:00 AM

500 TOTAL PERFORMANCE YEARLING ANGUS BULLS

Bulls sired by:
Casino Bomber - Connealy King Air
Vermilion Bomber G017 - Vermilion Bomber G077
Sitz Commerce 670F - Vermilion Missile - Vermilion Re-Ride
Deer Valley Growth Fund - Vermilion Spur D125
Connealy McIlroy - Myers Fair-In-Square - HF Alcatraz 60F

- Genomic tested with ANGUSGS Powered by Neogen GeneSeek
- Volume discounts
- Free delivery in Montana and adjoining states
- First breeding season guarantee
- Large sire groups with many half and three-quarter brothers
- All fertility measured and soundness evaluated

5,000 Fancy Open Commercial Replacement Angus Heifers
All One Iron - Bang's Vaccinated - Ready to Breed - Montana's Best



Something New - Embryo Sale MARCH 24
6:00 PM on www.northernlivestockvideo.com

"MEATING" INDUSTRY DEMANDS
Follow Us

Vermilion Ranch
Pat Goggins Family

Bob Cook - Records & Sales
Cell: 406-670-0078
Jeff Mosher - Vermilion North
Brandon Mosher - Pryor Creek

Jake Kading - Herdsman
Cell: 406-672-5844
Bill Shaules - South Pryor
Greg Roberts - Diamond Ring

PO Box 30758
Billings, MT 59107
Email: bcook@cattleplus.com
www.vermilionangus.com

The Best of Northern Cattle: NORTHERN LIVESTOCK VIDEO AUCTION

Sale broadcast and videos available online through Northern Livestock Video Auction
www.northernlivestockvideo.com

Consider manure as a fertilizer amid high fertilizer costs

This long, cold winter has many considering using manure as a fertilizer. With the continuous rise of fertilizer prices and prolonged supply chain issues, bedded pack beef manure can be a cost-effective solution, according to Mary Keena, North Dakota State University (NDSU) Extension livestock environmental management specialist.

"Although it is commonly thought of as a waste, manure contains nutrients such as nitrogen, phosphorus, potassium and sulfur that are available at various rates for plant growth," Keena said.

Besides the bump in fertility, there are other benefits to using manure in your cropping system. Manure has been shown to increase water holding capacity and bulk density, along with improving biological properties of the soil.

"Manure has many positive attributes, but it also has some drawbacks," Keena said. "One of the drawbacks is lack of uniformity and another is the issue of weed seed management. While it is true that manure contains viable weed seeds, it is also true that manure contains the nutrients necessary to nourish the weed seed bank that already exists in your soil. Nonetheless, composting can help alleviate both of these problems at the same time."

Composting is the process of piling and mixing moistened manure to encourage thermophilic decomposition. The heat that is created during the composting process has the ability to kill weed seeds, pathogens and parasites while creating a uniformly mixed product with similar surface area. Composting manure also changes the availability of nitrogen for plant use, turning it into a slower releasing product.

"The nitrogen in fresh beef manure is approximately 50 percent available for plant growth during the first growing season after application, whereas the nitrogen in composted beef manure is only 15 percent to 20 percent available," says Keena. "Most often, fresh manure is used as a nitrogen fertilizer while composted manure is used as a phosphorus fertilizer because phosphorus is approximately 80 percent available in both products. It is important to know which you are dealing with."



NDSU

A truck-mounted horizontal spreader applies manure to a field at the NDSU Carrington Research Extension Center.

Sampling manure and compost is the most accurate way to determine the nutrient content (amount, not availability).

Like when using commercial fertilizer products, calibration becomes important when spreading manure or compost, advises Keena. By knowing the amount of nutrients present in the product and the rate (tons/acre) at which it was applied, farmers can calculate the amount (pounds/acre) of nutrients that were applied and how much will be available for plant growth during the 2022 growing season.

Numbers from the National Agricultural Statistics Services indicate that in 2019, there were approximately 55 million pounds of beef manure produced in North Dakota. — **NDSU Extension**

ARNTZEN ANGUS RANCH

POWER OF PREDICTABILITY

What does 66 years of breeding with the same goal in mind get you?

A consistent, predictable product that has stood the test of time.

A A R Landmark 1912
Lot 3 Reg. 20170041
Landmark x Connealy Countdown Pathfinder® dam posts 4 WR 108
BW +1.8 WW +83 Milk +17 YW +143

A A R Stunner J227
Lot 2 Reg. 20158876
Stunner x Matrix
Son of the matriarch Blackbird 9044
BW +1.9 WW +83 Milk +31 YW +133

A A R Rangeland 1421
Lot 4 Reg. 20170013
Rangeland x Dash
Outstanding cow family.
BW +3.1 WW +83 Milk +27 YW +135

A A R Knudson J100
Lot 7 Reg. 20156829
Knudson x Ten X
Calving ease and muscle
BW +0.6 WW +72 Milk +25 YW +130

A A R Complete 1594
Lot 6 Reg. 20170033
Complete x Justified
Dam is a top young Justified daughter.
BW +2.7 WW +86 Milk +26 YW +146

A A R Load Up J093
Lot 9 Reg. 20156857
Load Up x Franklin
Weaning ratio of 119
BW +1.6 WW +77 Milk +33 YW +134

A A R Justified 1007
Lot 10 Reg. 20169979
Justified x Creed
One of our top Justified sons.
BW +0.8 WW +74 Milk +21 YW +131

A A R Landmark J153
Lot 19 Reg. 20158951
Landmark x Justified
Top 1% $M
BW +1.9 WW +79 Milk +19 YW +130

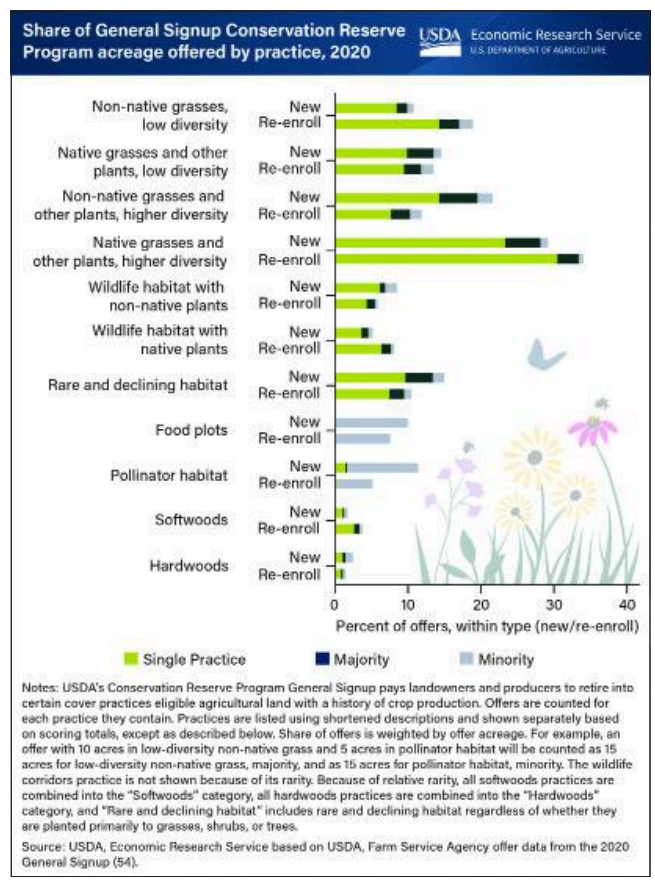
SIRES INCLUDED:
GDAR Load Up 7104
Woodhill Complete A130-C2
KG Justified 3023
Ellingson Rangeland
A A R Knudson 8241
A A R Justified 8244
Ellingson Rough Rider 7256
Musgrave 1676 Stunner 809
Raven Stunner G274
A A R Foreman 7733

Brad Arntzen cell: 406.350.4000
Kevin Arntzen cell: 406.350.1612
Derik Arntzen cell: 406.350.1728
577 Arntzen Lane
Hilger, MT 59451
arntzen@mtintouch.net
www.arntzenangus.com

View bulls and bid online

APRIL 7TH, 2022 • 1:00 P.M.
46th Annual Production Sale at the ranch
Selling 200 Bulls & 20 Top End Yearling Heifers
All bulls have genomicaly enhanced EPDs.

Native grasses mix most common CRP practice



USDA's Conservation Reserve Program's (CRP) general sign-up allows landowners and producers to retire eligible agricultural land with a history of crop production in exchange for payment.

Landowners and producers may select one or more practices that they agree to establish for the duration of a 10-15-year contract, if chosen for enrollment. Practices are awarded different points based on the Environmental Benefits Index, which incorporates the expected impact of the chosen cover practice on wildlife benefits and carbon sequestration, as well as the anticipated durability of that impact.

Landowners and producers who choose a cover practice worth more points have a greater likelihood of acceptance. In 2020, more than 80 percent of reenrolling offers and more than 90 percent of offers on land not previously enrolled in CRP chose a practice other than the lowest-scoring practice, which is nonnative grasses with low diversity.

The most common practice is using native grasses and other plants with high diversity, which provides between 40 and 70 additional points relative to the low diversity nonnative grass practice, while only requiring the use of native species and slightly greater species richness and complexity.

Grasslands practices (native and nonnative grass practices) are the most common group of practices, followed by wildlife practices (wildlife and rare and declining habitat practices). Pollinator habitat is rarely the only practice on an offer. — **USDA Economic Research Service**

April 6, 2009, Vol. 88, No. 26

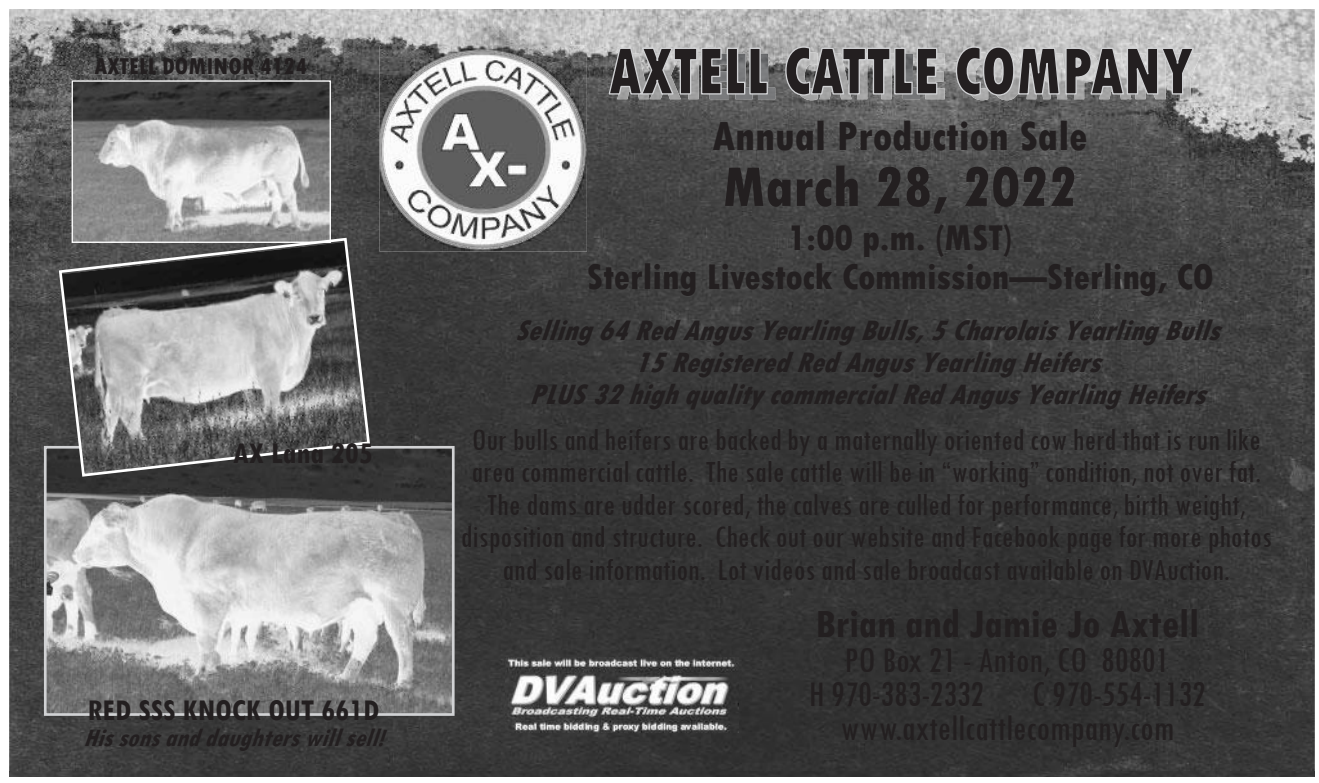
Western Wanderings

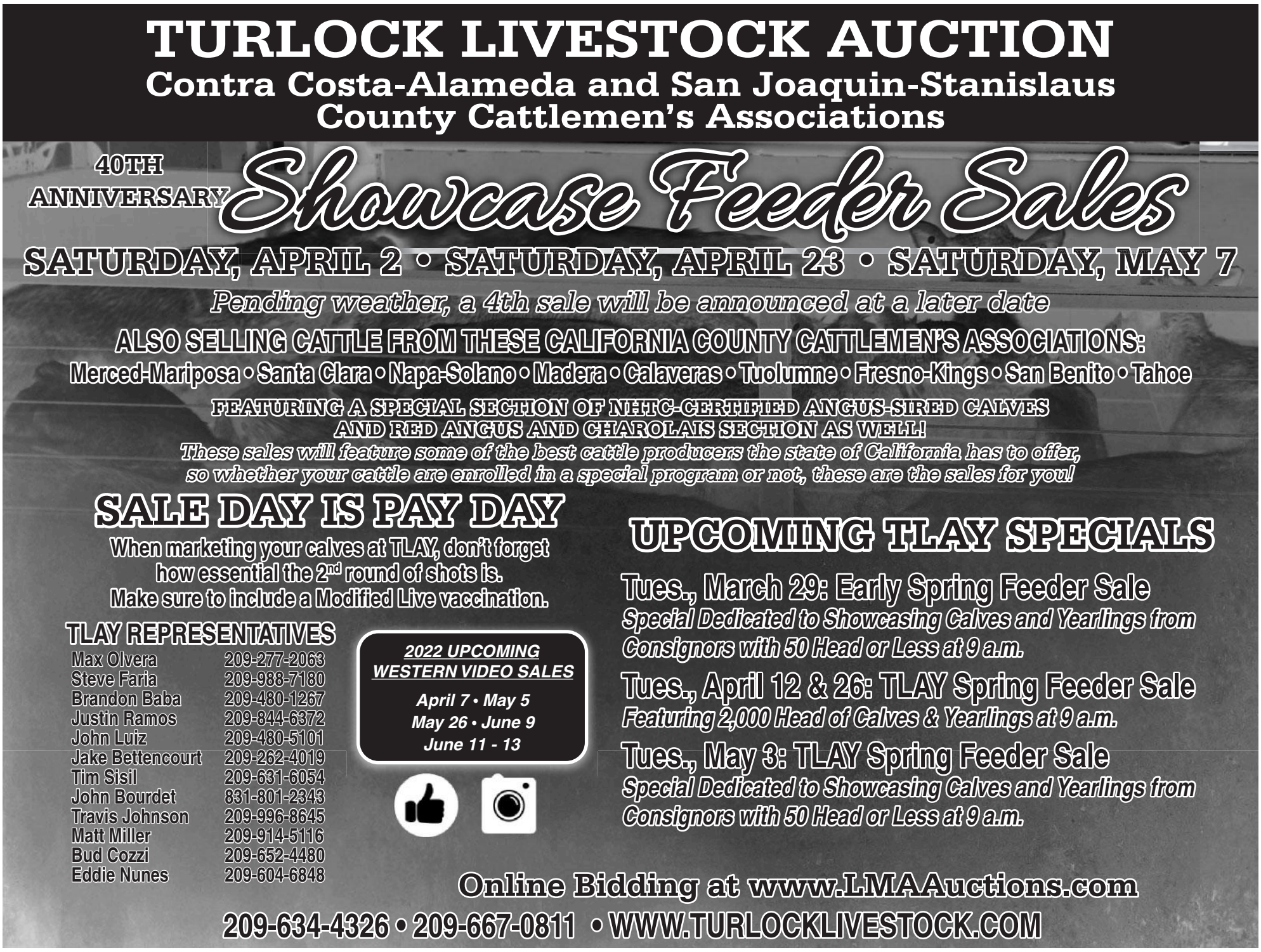
It's always nice to honor people in our industry who have achieved above the ordinary and that have made a difference in the industry. And it's even better when these honors come along and you know the recipients. Such is the case as I write this column. A couple of years back, our *WLJ* Tour went to Texas and toured a portion of that great state. One of the stops we made was at Graham Land and Livestock Co., Gonzales, TX. At this stop, our group was greeted by Dr. Charles Graham, owner of the feedlot and a wonderful host, who kept our group informed and entertained with his good humor and straight talk. Although Dr. Graham is well known as a veterinarian and cattleman, he also cut a wide swath in the Quarter Horse business and this spring was inducted into the American Quarter Horse Hall of Fame. Dr. Graham started his own stallion station and housed some of the breed's legendary stallions along the likes of Rocket Wrangler, Three Oh's, and many others. He also played a pivotal part in getting parimutuel racing into Texas and was one of the founders of Heritage Place in Oklahoma City, OK. And for those of you who follow rodeo, you'll remember Tee Woolman's great Megazord that was named PRCA and AQHA Team Roping Head Horse of the Year in 2004. Dr. Graham bred and raised him. Dr. Graham is one of those unique individuals who has accomplished extraordinary things in his life and his induction into the AQHA Hall of Fame will surely enhance that distinguished group. Congratulations to you, Dr. Graham, from all of us at *WLJ* and from all of our *WLJ* Tour group.

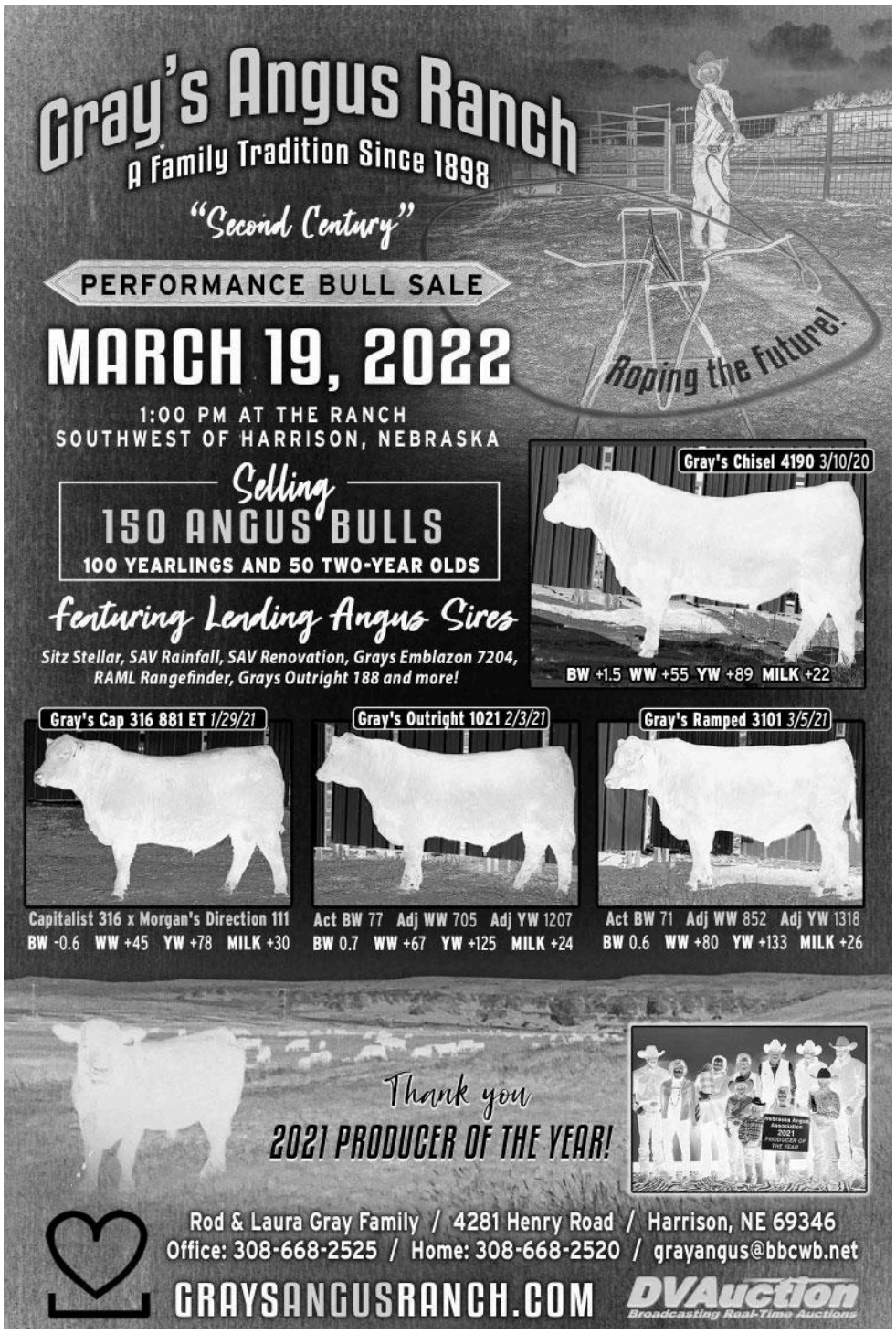
Wander, wander ... Another great stop on that Texas tour that had all of our tour members chomping at the bit was at Nolan Ryan Ranches. Nolan was a fantastic host who greeted each tour member as they stepped off the bus, signed autographs, and made everyone feel welcome. Nolan Ryan is, of course, no stranger to receiving honors such as having been inducted into the National Baseball Hall of Fame and this year, he will be receiving the Chester A. Reynolds Award at the National Cowboy Hall of Fame and Western Heritage Center, Oklahoma City, OK. This award is given to an individual who embodies the traits as set forth by the board that has made an outstanding contribution to the ideals, history and heritage of the West. Yes, that would be Nolan Ryan. Most folks in the livestock business know that he has some ranches, but most would probably not know of his passion for livestock and the Beefmaster business in particular. Nolan is one of those unique individuals who grew up the same as all of us, but has accomplished extraordinary things in his life. Nolan has received many other awards and honors on and off the baseball field, but I'd wager the Chester A. Reynolds Award is right up there on the list. Congratulations to you, Nolan, from all of us at *WLJ* and from all of our *WLJ* Tour members.

More wandering ... Speaking of the National Cowboy Hall of Fame, all of us here at *WLJ* are proud to have one of our own represented in the Hall of Great Westerners. Pete Crow's grandfather, *WLJ* Founder Nelson Crow's hat is on display in this hall. It's ordinary people like these three men who accomplished extraordinary things that gives us all motivation to work hard and be the best we can be. — **Jerry York**

It's always nice to honor people in our industry who have achieved above the ordinary and that have made a difference in the industry.







Fall dormancy in alfalfa; planting oats, Italian ryegrass pasture

The time for spring planting alfalfa is just around the corner, and two traits that are often confused are fall dormancy and winter survival. Both are critical to a long-lasting and productive stand. Today, let's look at fall dormancy.

Fall dormancy is a measure of an alfalfa plant's ability to regrow in the fall after harvest and the spring following winter. It is scored on a scale ranging from one to 11, with one being most dormant and 11 the least. Higher dormancy means a harvested plant will focus its resources in the fall more on building reserves to survive the winter and less on new growth.

This tendency toward slower regrowth manifests throughout the year, with less dormant varieties typically recovering faster in the spring and producing overall higher yields. Another role dormancy plays is keeping plants from starting growth during the random warmups in the fall and winter months. Plants that break bud during these periods are subject to winterkill.

Finally, fall dormancy can impact the harvest timetable. A lower dormancy rating means a plant regrows slower. This translates into more time to remove forage from the field before "windrow disease" and field traffic become a concern.

In the past, fall dormancy traits were linked with winter survival. With new varieties, this isn't always the case, so fall dormancy needs to be evaluated on its own.

Variety selection depends upon your management, production goals and ability for a stand to make it through winter without sacrificing additional yield. If you have regular issues with stand winterkill, a lower rated variety with improved dormancy is recommended. In Nebraska, we recommend dormancy ratings one through five.

Oats, Italian ryegrass

Good quality pasture might be in short supply this spring. If you need some spring pasture, plant oats or a mix of oats and Italian ryegrass.

Spring-planted oats grow during spring when we are likely to receive rain and when moisture is used efficiently to produce forage. Oats can be grazed earlier than anything else you plant this spring. Once it gets 5 or 6 inches tall, which is usually about the third week of May, it quickly can shoot up to a foot tall in almost no time.

Unfortunately, once oats get that tall, they may not stool out, tiller and regrow after grazing very well. So, it's important to start grazing early when oats get 6-8 inches tall to stimulate them to form new tillers.

After this first grazing, keep oat regrowth between 6-13 inches tall. Begin with a light stocking rate, about one animal every 2 acres. Then adjust animal numbers as oat growth changes.

For a longer grazing season, plant a mixture of oats and Italian ryegrass. Oats come on strong early, while Italian ryegrass tends to wait until June before it grows rapidly. Then it just keeps growing high-quality leaves the rest of the season if moisture is available.

For straight oats, drill at least two bushels per acre in late March to early April. With good moisture and 40-60 pounds of nitrogen, oats can provide a couple months of grazing for one or two cows per acre. For extended grazing, drill oats plus around 15-20 lbs. of Italian ryegrass per acre. — **Ben Beckman and Jerry Volesky, Nebraska Extension**



Products could be available to consumers in just 2 years

FDA
(from page 1)

PRLR-SLICK cattle

IGAs are made using molecular technology that introduces changes to the genome of an animal, FDA said. The IGA for the cattle, known as PRLR-SLICK cattle, was introduced using the genome editing technique known as CRISPR. The IGA can be passed onto offspring, allowing the trait to be shared through conventional breeding.

Cattle with a slick coat are better able to withstand hot temperatures, leading to less temperature-related stress and therefore improving food production. Although the PRLR-SLICK cattle have the same trait as cattle with a naturally-occuring short coat, they were not able to be in commerce.

The product developer, Acceligen—a subsidiary of the biotech firm Recombinetics Inc.—plans to use the genetic products from the two cattle with customers in the global market soon. The company also anticipates meat products will be available for purchase by general consumers in as soon as two years.

"Both Acceligen's and FDA's analyses of the genomic data found evidence of unintended mutations in the genomic sequences of the founder calves," the risk assessment read. "However, based on the types of unintended alterations identified and available information about their genomic locations, they are not expected to result in changes to protein expression."

FDA therefore concluded the alterations do not pose any safety concerns for the PRLR-SLICK cattle or for people who consume the cattle's products.

Background

In 2017, FDA released a draft for public comment regarding the regulation of IGAs in animals. The draft expanded the scope of existing guidance for gene-edited animals.

For IGAs in animals that are non-food producing and under government oversight or used for research purposes, CVM has said it will exercise enforcement discretion without a prior review of data. However, for other IGAs, CVM has said it may exercise enforcement discretion on a case-by-case basis if the product has been determined to be low risk to humans, animals and the environment. — **Anna Miller, *WLJ* managing editor**

Consumer Food Insights Report details consumer reaction to inflation

— "Bioengineered" label

Consumers are managing inflation in food prices for now, but their expectations to experience future inflation increased from last month, according to this month's Consumer Food Insights Report from Purdue University.

The survey-based report out of Purdue's Center for Food Demand Analysis and Sustainability assesses food security and spending, consumer satisfaction and values, support of agricultural and food policies, and trust in information sources.

Key results from the February survey are:

- A Sustainable Food Purchasing (SFP) Index of 68/100.
- Food inflation expectations among consumers are on the rise.
- In response to inflation, 24 percent of respondents sought out more sales and discounts; 31 percent have not changed their behavior.
- Weekly food spending increased by 3.2 percent and 5.5 percent on food-away-from-home.
- 67 percent of respondents reported not seeing the "bioengineered" label that is now mandatory on certain genetically engineered food products.

"Increasing inflation expectations are a bit worrisome because expectations of future price can lead to a self-fulfilling prophecy," said Jayson Lusk, the head and distinguished professor of agricultural economics at Purdue, who leads the center. "However, I find it more interesting that consumers' perceptions of how much food prices have increased over the past year is quite a bit lower than the official data."

The Bureau of Labor Statistics reported that prices of food at grocery stores increased 7.4 percent over the course of the past year, but the consumers surveyed for the Consumer Food Insights Report said, on average, they thought food prices had increased 5.2 percent over the past year.

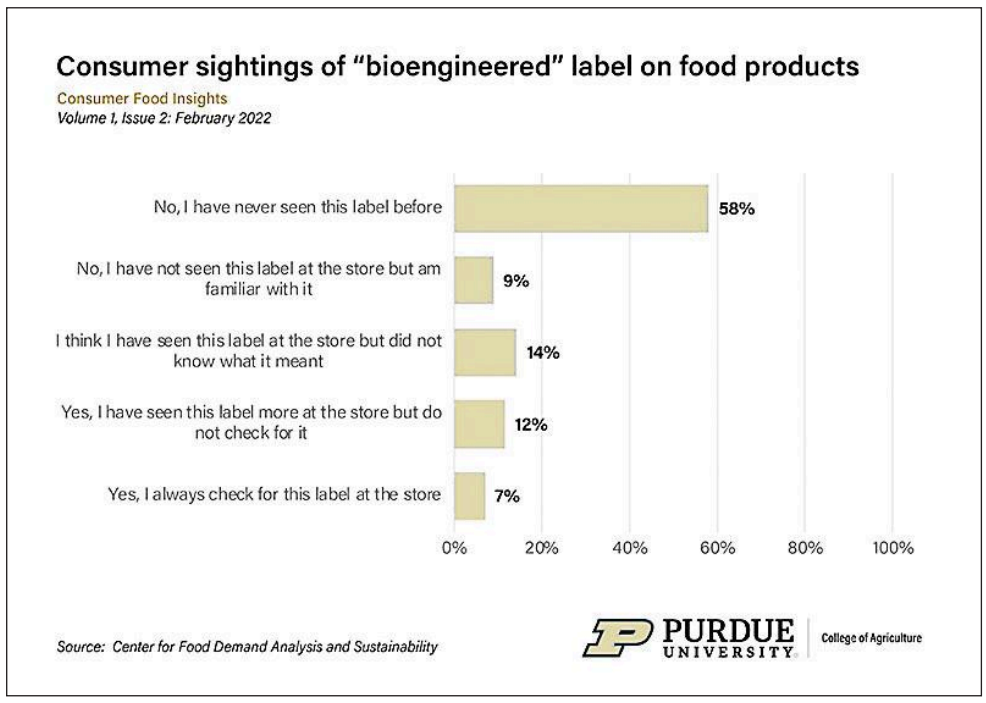
"Maybe consumers aren't 'feeling' inflation as much because they can adjust to higher prices in a variety of ways like shopping on sale or substituting lower price alternatives," Lusk said.

"When we asked consumers how they were responding to increased food prices, the most common answer was that they had made little to no change in their shopping habits, which suggests wage and income growth, coupled with savings, have not led to major shifts in consumers' buying habits."

The SFP Index value for February is 68/100. The score reflects consumer food purchasing that aligns with a set of key recommendations for healthy diets from sustainable food systems. The index includes six components correlating with different strategies for achieving food system transformation: nutrition, environment, social, economic, security and taste.

"The stability of the SFP Index and other measures in the report gives us confidence in the survey and our work," said Sam Polzin, a food and agriculture survey scientist for the center and co-author of the report. "It means we are getting at fundamental measures of consumer behaviors and opinions. With a solid baseline, we will be able to recognize trends and future shifts in consumer food purchases and preferences."

The Center for Food Demand Analysis and Sustainability is part of Purdue's Next Moves in agriculture and food systems, and it seeks to use 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**



Europe war leads to calls for increased production

— High food, fuel prices

With President Joe Biden banning imports of Russian oil, the American Farm Bureau Federation (AFBF) on March 8 called on the president to "address high energy costs impacting all Americans" by increasing domestic energy production, including expanding the use of biofuels.

> ***"Achieving domestic energy independence through comprehensive energy sources remains a priority issue for Farm Bureau."***

AFBF's call to relieve pressure on energy prices was just one of the pressure points for agriculture that day. The ranking member of the Senate Agriculture Committee, Sen. John Boozman (R-AR), also called on USDA to offer landowners flexibility on Conservation Reserve Program acres so "millions of acres of cropland and pasture that would have otherwise remained idle" can be farmed to "address both inflation and food security concerns."

AFBF President Zippy Duvall, pointing to oil prices moving to $130 a barrel, called on the president to remove barriers to domestic energy production, including more drilling and extraction of U.S. energy sources.

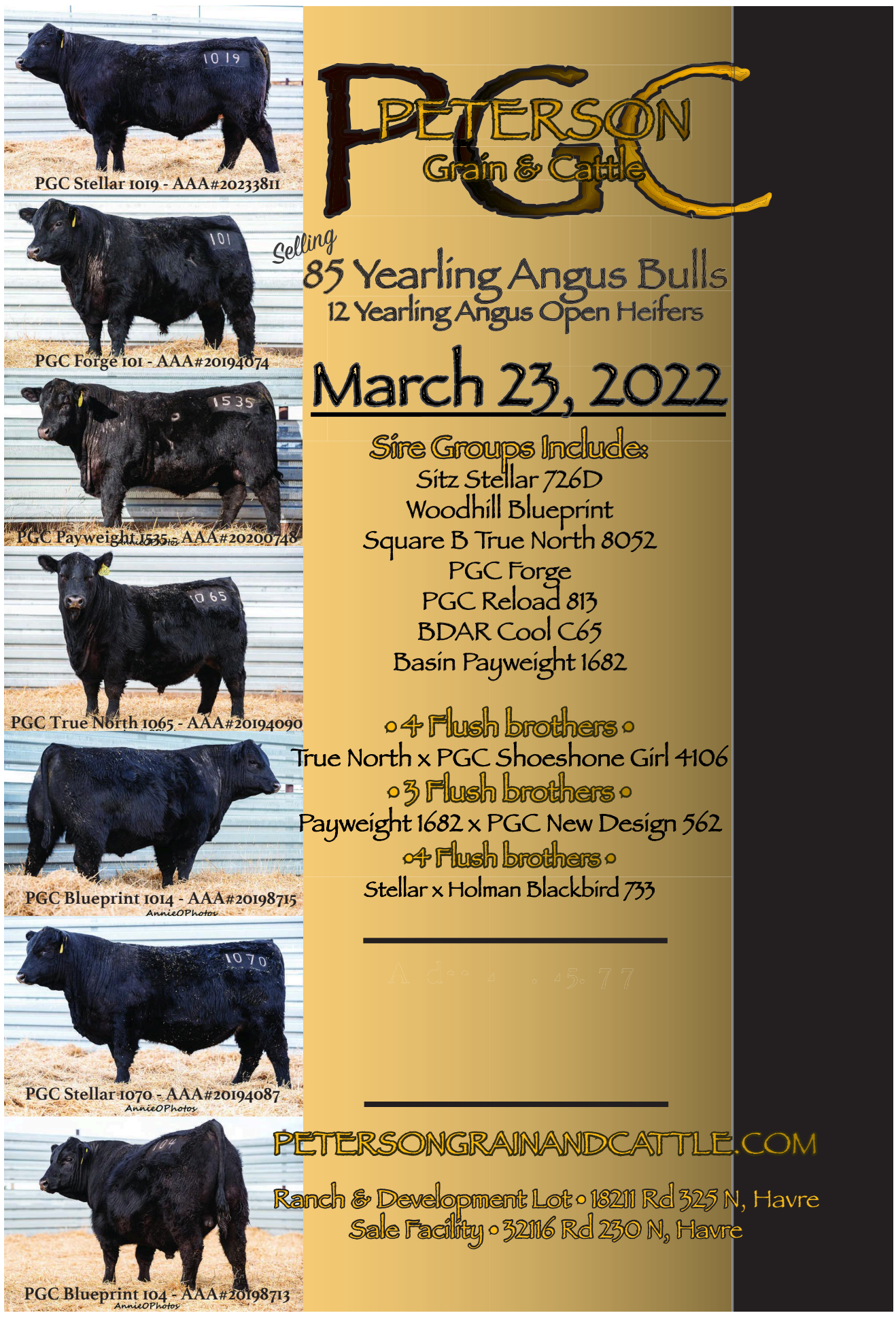
"The utilization of domestically produced fuels, including biofuels, has reduced our country's dependence on foreign crude oil, increased farm incomes and provided good-paying jobs in rural America," Duvall said.

Duvall called on President Biden to increase the use of biofuels.

"Expanding the volume of American-made ethanol in the U.S. fuel supply can help alleviate some of these issues, as ethanol is currently priced 70-80 cents per gallon lower than gasoline. And by displacing imported petroleum, increased biofuel use and domestic energy production will enhance U.S. security and independence while supporting America's farmers and rural communities."

Duvall added, "Achieving domestic energy independence through comprehensive energy sources remains a priority issue for Farm Bureau. We are committed to working with partners in the private and public sectors, your administration and Congress to address the current energy crisis."

AAA's weekly report on gas prices showed the average price of a gallon of regular gasoline nationally reached $4.17 on March 8, up 55 cents in the past week. Diesel prices now average $4.75 a gallon, while E85 nationally lists at $3.58 a gallon. — **Chris Clayton, DTN ag policy editor**



AI & GENETIC TECHNOLOGY

Estrus synchronization and the breeding season

For most producers, the spring breeding season is still a ways off, but now is a good time to review the most current estrus synchronization protocols and develop a plan for this year. There are several Extension resources that can be helpful in preparing for the upcoming breeding season.

The first resource is the Applied Reproductive Strategies in Beef Cattle website, which can be found at beefrepro.org. The content for this website is developed and maintained by the Beef Reproduction Task Force, a multistate Extension cooperative. On the website are the current recommended estrus synchronization protocols for both heifers and cows, along with several resources related to understanding the estrus cycle in cattle.

The Beef Reproduction Task Force also hosts an annual Applied Reproductive Strategies in Beef Cattle Symposium. This event is considered to be the premier national event in beef cattle reproductive management and has a long history of providing the latest information on the application of reproductive technologies.

Past proceedings for the event are also available at the website and cover a range of topics related to cow herd reproduction—such as nutritional interactions, management and male fertility. They also are offering monthly webinars that a producer can sign up for and view live or later watch in the archive.

A second resource is a webinar titled "Principles for Improving Conception Rates with Estrus Synchronization and AI" by Nebraska Extension Beef Cattle Reproductive Physiologist Rick Funston, Ph.D. This webinar is available at beef.unl.edu. The presentation gives an overview of principles to remember and utilize to enhance the likelihood for estrus synchronization and artificial insemination success.

A third resource that is extremely helpful is the Estrus Synchronization Planner developed and maintained by the Iowa Beef Center. This free spreadsheet tool can be utilized to help identify the best estrus synchronization protocol based on desired goals. The planner also provides a detailed calendar with the correct products to use, along with dates and times based on the selected estrus synchronization protocol. Correctly following an estrus synchronization protocol is critical to success. This planner helps clarify details in an easy-to-use format.

Are you seeking to evaluate the costs and benefits of artificial insemination as compared to natural service? The Breeding Cost Cow-Q-Lator is a spreadsheet tool that can assist producers with calculating the costs and values associated with natural service and artificial insemination to help producers compare the two options to each other. This resource is available at the beef.unl.edu website.

The development of estrus synchronization protocols for beef cattle that can be used for either natural service or artificial insemination has provided greater opportunities for cattle producers to benefit from these technologies. Taking time to review the different options that are available and evaluate how they might be utilized can help producers select the tools that are right for them. — **Aaron Berger, Nebraska Extension beef educator**

HUMANE BLOODLESS DRUG FREE
PRO BANDER™ Built-in Cutter Self-locking Loop
SMART BANDER™ Getting the Job done Since 1991
WEE BANDER™ Tensioned Loop for Newborns
Callicrate Banders insure proper application and tension every time. This high-tension method improves any kind of surgical removal, including castration, horn removal, and prolapse treatment.
CallicrateBanders.com
785-332-3344
Made in USA



Terminology of modern beef cattle genetic prediction

Over the past 30 years, we have seen the number of EPDs reported by beef breeds expand several times. Over the past 20 years, $Values have been introduced in an attempt to simplify selection. The past 10-15 years have seen the introduction of genomically enhanced EPDs. This article defines and gives examples of each.

An EPD is a prediction of how the future progeny of an animal (bull or cow) is expected to perform relative to the progeny of other potential parents in a beef breed registry's database. EPDs are reported in units of measure for that trait, plus or minus. For example, weaning weight (WW) is reported in pounds. A heifer pregnancy (HP) EPD is reported in percentage units. Compare the following two bulls:

- Bull A: WW EPD of 50, HP EPD of 15.
- Bull B: WW EPD of 61, HP EPD of 10.

Comparing the two bulls as parents, WW EPDs predict Bull B's offspring to weigh 11 pounds heavier at weaning. HP EPDs predict Bull A's daughters are 5 percent more likely to become pregnant as first-calf heifers during their first breeding season.

$Value indices or $Values serve as an economic selection index. A $Value assigns an economic weight to several traits pertaining to a specific breeding objective or marketing endpoint. Accordingly, selection based on $Values will change several traits at once. Relative to a specific marketing goal, all the EPDs for traits that have an economic impact on the value of offspring at that marketing endpoint are weighted, and the genetic value is expressed as a single numerical value in dollars per head of offspring.

For example, in Angus cattle, beef value ($B) is a terminal index expressed in dollars per carcass. This index assumes commercial operations will retain ownership of all progeny through finishing and market fed cattle on a carcass value basis. As such, EPDs for the traits of yearling weight, dry matter intake, marbling, carcass weight, ribeye area and external fat thickness receive an economic weighting. If comparing two bulls:

- Bull A: $B EPD of 225.
- Bull B: $B EPD of 201.

Assuming the specific marketing endpoint for all progeny sired is as defined above, Bull A's offspring should result in $24 more per carcass value.

Accuracy (ACC) indicates the reliability of the EPD and is based on the amount of data that has been taken into account in predicting the genetic value. EPDs based on the records of more ancestors, relatives, progeny and DNA will have higher accuracy values. ACC values range from 0 to 1, with values closer to 1 indicating more reliability (based on more data taken into account).

Genomically enhanced EPDs (GE-EPDs) have taken DNA test results into account to enhance the ACC of EPDs. GE-EPDs are generally higher in ACC because DNA information is in addition to the pedigree, individual and progeny data.

While EPDs are our best estimate of the breeding value of an animal in a breed registry for a trait regardless of ACC, GE-EPDs increase the accuracy of selection of young animals that have not yet sired or produced offspring.

More information can be found in a breed's sire summary or on their website. — **Mark Z. Johnson, Oklahoma State University Extension beef cattle breeding specialist**

CATTLE Visions

America's Convenient A.I. Brand



KCF Bennett Summation
KCF Bennett Consent x Thomas Patricia
EPD: BW -.1, WW 99, YW 178, MK 33, $B 194
Extremely easy calving with top 1% ranks for growth & $Values!



LD Capitalist 316
Connealy Capitalist x CA Future Direction
EPD: BW -1.8, WW 68, YW 121, MK 30, $B 143
Tremendous calving ease & all around function!



Bushs Wing Man
Bushs Date Night x KCF Bennett Southside
EPD: BW -.8, WW 73, YW 126, MK 23, $B 130
New outcross pedigree with excellent calving ease, growth & profile!



E&B Plus One
Connealy Confidence Plus x E&B 1023
EPD: BW .6, WW 66, YW 130, MK 25, $B 186
Calving ease, growth & top carcass traits!



Linz Exemplify
Confidence Plus x Tour of Duty
EPD: BW 2, WW 86, YW 153, MK 31, $B 177
Popular performance sire with density & dimension!



SydGen Enhance
SydGen Exceed 3223 x SydGen Liberty
EPD: BW .7, WW 76, YW 147, MK 35, $B 225
America's top calving ease curve bender with top carcass & $Values!



KR Synergy
Cadillac Jack x Summitcrest Focus
EPD: BW -1.5, WW 68, YW 120, MK 23, $B 130
Outcross, calving ease, eye appeal, performance!
A featured Krebs high seller!



Car Don Annuity
Growth Fund x Rampage
EPD: BW .9, WW 106, YW 186, MK 39 , $C 324
Hottest Growth Fund son with terrific growth!



EXAR Monumental
3F Epic x Ten X
EPD: BW -.1, WW 79, YW 138, MK 29, $B 200
Epic's supersire son at Express Ranch with top $Values.



Baldridge Alternative
POSS Easy Impact x Hoover Dam
EPD: BW 1.4, WW 72, YW 132, MK 14, $B 203
Outcross growth, extremely high carcass & $ values!



JACs Rare Find
Basin Payweight x Ten X
EPD: BW .7, WW 87, YW 142, MK 34, $B 164
Exciting, extra complete multipurpose sire!



Jindra Megahit
Hoff Blockbuster x Hoff Heartland
EPD: BW .9, WW 93, YW 159, MK 15, $B 187
Add frame, pounds & performance!



Musgrave Sky High
Musgrave Big Sky x SAV 004 Density
EPD: BW 1, WW 66, YW 111 MK 23, $B 148
One of the heaviest used sires in the breed for completeness!



H Montgomery
UPS Sensation 2296X x Tankeray
Siring high sellers & champions!



Churchill Majestic
Boyd Blueprint x NJW Hometown 10Y
Calving ease, performance and eye appeal!



LT Tioga 4090
Ultra calving ease with LT's best maternal genetics!



9 Mile One of a Kind
Calving ease with extra growth & performance!
Top % for Gridmaster & Herdbuilder EPDs.

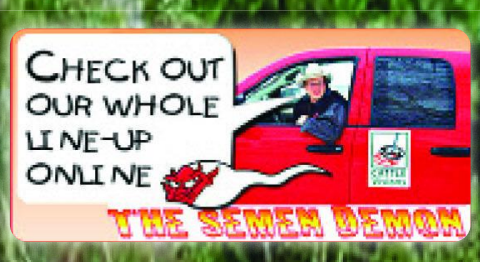


WC LockDown
Hottest calving ease SimAngus!



WC Relentless
Werning bred supersire for all-around balance!

SEMEN AVAILABLE ON ALL BEEF BREEDS!
WE'RE THE LEADING CLUB CALF BULL SOURCE!



www.cattlevisions.com
MO Office: 1-573-641-5270

AI & GENETIC TECHNOLOGY

Veterinary AI market size worth $7.4B by 2030

The global veterinary artificial insemination (AI) market size is anticipated to reach $7.4 billion by 2030, according to a new report by Grand View Research Inc. The market is expected to expand at a lucrative compound annual growth rate of 6.5 percent from 2022 to 2030. The key factors driving the market growth include increasing consumption of animal protein, growing demand for livestock productivity and adoption of sexed semen.

In September 2021, LIC—an agritech cooperative based in New Zealand—launched a sexed semen lab in the country to meet the growing demand. This boosted the cooperative's capabilities to artificially inseminate about 4.5 million cattle between the spring mating season of September to December 2021.

Key findings

By animal type, the cattle segment held the largest share of the market in 2021, owing to rising consumption of beef, milk and milk products. The swine segment is projected to grow the fastest, owing to the rising adoption of AI techniques and growing consumption of pork in key markets.

The normal semen segment accounted for the largest revenue share in the products segment in 2021, owing to the low cost of the product compared to sexed semen and wide availability.

The sexed semen segment is expected to show the fastest growth during the forecast period. In 2016, STgenetics produced 4 million X chromosomes in an AI straw. The company sells sexed semen for five species of animals, including cattle, deer, sheep, horses and goats. The rate of semen straws ranges between $65-250 apiece as of 2018, depending on the quality, species and use of the animal.

The animal husbandry segment accounted for the largest revenue share in 2021 and is expected to maintain its dominance throughout the forecast period. The growth can be attributed to most semen collection and artificial insemination procedures performed on-site on farms.

North America dominated the market in 2021, while the Asia-Pacific region is anticipated to grow the fastest in the coming years.

The COVID-19 pandemic resulted in many challenges, including dampened growth, decreased sales and marketing activities, supply chain hurdles and delays in delivery of AI services. The erratic and uncertain consumption patterns in several key markets exacerbated by sporadic lockdowns and logistical bottlenecks further increased the uncertainty in the market.

The growth was also dampened by other factors such as African swine fever (ASF). Genus PLC, for example, reported labor shortages, adverse impacts on retail food service demand and meatpacking capacity, and international logistics delays due to the pandemic. The company indicated that in the near term, feed input costs, ASF and COVID-19 implications would continue to exert pressure on the global porcine industry, in particular in China and Europe. In North America, the pandemic led to packing plant slowdowns during the first half of fiscal year 2021.

To fulfill the continuously increasing demand for meat and dairy products, market players are expanding AI solutions to breed high-quality livestock and enhance production. For example, in August 2020, Cogent, with AB Europe, launched a novel sexed semen service for United Kingdom sheep producers. Developing regions such as Latin America are also contributing to the growth of the market for veterinary AI. For instance, Brazil, one of the major countries in the region, has been adopting AI increasingly for the past decade.

The country has also deployed fixed-time AI techniques to increase profitability and success rates. According to the Brazilian Association of Artificial Insemination, from January to September 2018, 306,052 doses of national sexed semen were marketed for beef and dairy cattle, while it reached 503,078 in 2020, an increase of 30.83 percent.

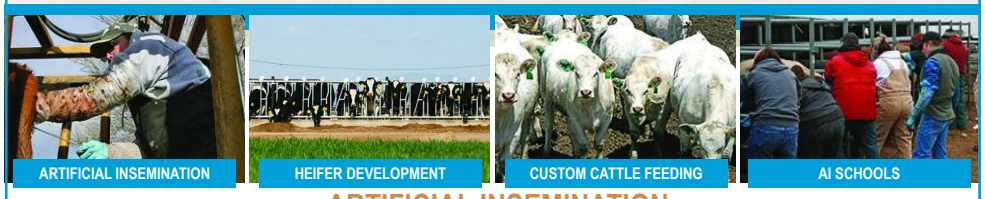
According to the Food and Agriculture Organization (FAO) publication in 2019, livestock contributed almost 40 percent of the global value of agricultural outputs in developed countries and 20 percent in developing ones, and it provides food security and livelihoods to more than 1.3 billion people worldwide.

Increased adoption of AI procedures in cattle, rising milk consumption and production of beef are other factors responsible for the significant growth of the market. For instance, according to data published by the United Nations FAO in 2018, beef and buffalo production increased from 69.56 million tons in 2017 to 71.61 million tons in 2018. Furthermore, the rising consumption of milk and milk products is positively impacting the market growth.

Favorable government regulations, intended to improve productivity, are also leading to growth. For instance, the Indian government approved the Agriculture Export Policy in 2018 to enhance agricultural economic growth in the nation. The new policy is aimed at boosting India's agricultural output to $60 billion by 2022 and $100 billion with a predictable foreign policy framework in the next few years.

— **Grand View Research**

Schleining Genetics, LLC
Bovine Reproductive Services
www.schleininggenetics.com
PO Box 3 I Ault, CO 80610 I 970-420-0267



• ARTIFICIAL INSEMINATION
Complete AI services including estrous synchronization.
• EMBRYO FLUSHING, FREEZING AND TRANSFER
Services on-farm and at our boarding facility.
• BEEF AND DAIRY HEIFER DEVELOPMENT
• CUSTOM CATTLE FEEDING
Experience with custom feeding cattle for producers throughout the United States.
• AI Schools - The artificial insemination courses include many aspects of bovine reproduction and AI technique.

UPCOMING CLASSES: *Visit our website for all course descriptions and upcoming classes*
https://schleininggenetics.com/aischools.php

PROFIT. REPEAT.
Generate repeated profits with the industry's most-favored female.
Independent research from a decade of data collection showed Red Angus-sired heifers commanded $66/head more than females of other breed types. That's nearly $5,300 on a single load of replacement heifers to boost profits on your operation.
Visit RedAngus.org for details on the industry's most-favored female.
RED ANGUS
RANCH TESTED. RANCHER TRUSTED.

Coming Events

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

March 18-19 – Cattleman's Weekend is returning to the Prescott Livestock Auction in Chino Valley, AZ, for its 31st year, and the 24th Annual Arizona Ranch Remuda Sale is transforming into the American West Horse Sale. Cattleman's Weekend is also hosting the 45th Annual Arizona Hereford Association Bull Sale, the 22nd Annual Arizona Angus Association Bull Sale, the 34th Annual Prescott All Breed Bull Sale, the 31st Annual Cattleman's Trade Show, the 2nd Annual Cattleman's Weekend Jackpot Roping and the 2nd Annual Yavapai County Fair Catch-a-Calf Contest. More info: cattlemansweekend.com or Cattleman's Weekend Program and American West Horse Sale Facebook pages.

March 30 – The Public Lands Council's Legislative Conference will be held virtually, with no cost to attend. The event will be a half day of interactive sessions and policy briefings with the Bureau of Land Management, Forest Service, Congressional Western Caucus and more. Register at publiclandscouncil.org under the "Events" and "Legislative Conference" tabs.

Aug. 18-19 – R-CALF USA is hosting its 2022 Annual Convention and Trade Show at the Lodge at Deadwood in Deadwood, SD. Sponsor and attendee registration is available now at www.rcalfconvention.com.

BULLS & REPLACEMENTS
ANGUS, STABILIZER, & SIM ANGUS
'ROCK FOOTED'
Carcass Merit, Growth, Maternal Longevity, Feed Efficiency, Easy Calving, Easy Handling
— Superior Genetics —
Split Ranch Resources
MULE CREEK, NM • (575) 535-8888 • SPLITRANCHRESOURCES.COM

AI & GENETIC TECHNOLOGY

Tips for beef cattle calving and rebreeding success

Calving and rebreeding are two sides of a coin; a calf is ultimately the result of a year-round breeding plan for cattle. Simultaneously preparing for beef cattle calving and rebreeding puts you in position to achieve your breeding herd goals:

- A 365-day calving cycle.
- A tight calving window.
- More and bigger calves.

How a heifer or cow calves will impact how quickly she can be rebred. Speed of rebreeding will impact her ability to stay on a 365-day calving cycle.

Because calving and rebreeding are so intrinsically linked and tied to herd success, this time frame is vital for herd performance and profitability.

Follow these four tips for beef cattle calving and rebreeding success.

• **Maintain BCS before beef cattle calving season** — Cow body condition score (BCS) at calving impacts how quickly a cow returns to heat and prepares for the next calving season. Cows managed for optimal body condition at calving (6 BCS) have shown to rebreed with conception rates of 88 percent or greater.

You want cows cycling prior to the breeding season so that when they come into heat during the breeding season, you have a better chance of getting them bred in the first 21 days. Cows bred early in the breeding season result in calves born early in calving season.

Why does it matter if a calf is born early in the season? Calf age has the biggest impact on weaning weight. Calves born in the first 21 days of the season are likely heavier at weaning. Assuming a calf gains between 2.25 and 2.5 pounds per day, every cow heat cycle is worth roughly 50 lbs.

The cow's BCS also impacts calf performance. Ideal BCS at calving supports colostrum quality, the cow's stamina during calving and calf vigor. Aim for a minimum BCS of 5.5 at calving for mature cows, but 6 is preferable. The minimum BCS for first-calf heifers is 6. Cattle supplementation can help maintain a consistent BCS.

• **Evaluate your cattle mineral program** — Mineral nutrition is one of the most commonly overlooked items on the preparation list for beef cattle calving and rebreeding. Make sure you're providing an adequate mineral program year-round versus right at calving or before breeding. Minerals are especially important 60 to 90 days before calving since they impact colostrum quality, calf trace mineral status and calf health.

Cattle mineral also plays a role in tissue repair, helping the cow's reproductive tract heal from calving and prepare for breeding. If the tract is not fully repaired, a cow may have challenges being rebred, or she may not breed back at all.

Cows must be rebred within 85 days of calving to have one calf per year. Most cattle operations have room for improvement; more than half of cattle operations do not have a defined breeding season. Of operations that have a defined breeding season, more than 60 percent had a breeding season longer than 84 days.

A quality year-round supplementation program ensures cows have the nutrition they need to thrive, no matter the forages available. A balanced cattle mineral is the best choice leading up to calving season and through breeding.

• **Discuss cattle health with your veterinarian** — If you don't have a comprehensive herd health program, now is the time to talk with your veterinarian or animal health supplier to develop one. If you have a program, it can be beneficial to reevaluate and ensure the protocols still make sense.

Make sure cow and calf vaccinations are part of your calving and breeding plan for cattle. Since every operation has a different risk level in how and when they calve, the program should be specific to your operation and region.

For operations with multiple employees, make sure everyone is familiar and comfortable with the cattle vaccination program ahead of time. Getting everyone on the same page before beef cattle calving begins can help ensure protocols are followed correctly and consistently.

• **Take time to troubleshoot** — Beef cattle calving and rebreeding are two of the most important events for your bottom line. It can be stressful when things don't go as planned, but overreaction could make things even worse. — **Chad Zehnder, Ph.D., Purina field cattle consultant**





AI & GENETIC TECHNOLOGY

New estrus sync protocols are constantly being developed

ESTRUS
(from page 1)

breeding season and, sometimes, using two breeding seasons.

"Twenty years ago, embryo transfer was the cutting edge of bovine reproduction, but now we talk about ovum pickup and IVF as the next step in these technologies, and people are also using sexed semen in beef cattle," Sanford said.

The typical beef producer may not be currently using some of these technologies, but there is a place for this, especially for seedstock operations. A purebred breeder might want to produce more bulls. A commercial cattleman might want to produce nothing but replacement heifers from their best cows.

Many producers use AI, and it's easier when all the cows or heifers can be bred in a short time instead of having to spend time heat detecting. "New estrus synchronization protocols are constantly being developed. Some people wonder why we need researchers working on these because we already have protocols that work, but it's because we can do a lot more with it now. Use of sex-sorted semen or sex-selected embryos wasn't common 10 years ago, but is becoming more common. Research is answering questions about what can be done and the time frame," she said.

"For example, we now know we can eliminate the need for injecting all females with gonadotropin-releasing hormone (GnRH) at timed AI and only give it to those that did not show standing head. We can have more precision in breeding management and eliminate extra injections when possible.

"If there's an issue with weather or labor, we may need options on what we can do. Some people think estrus synchronization is only used with AI or embryo transfer, but you can also take advantage of estrus synchronization with natural service. And, there are times when your labor doesn't show up, or semen doesn't come on time, yet the females are synchronized. You can change plans. If the bulls are tested and ready, you could simply turn them out and still be successful." It pays to have a backup plan.

Producers should be realistic about their goals and expectations when adopting a new technique like AI, ET or IVF, knowing you'll get better at setting up females over time and working with a breeding technician. "When there's a low conception rate or some other problem, it's also easier to trace back and determine what the issue might be if you keep good records and make sure the animals have good nutrition and have a good veterinary-client relationship in place. It helps to check all the boxes," she said.

In her presentation, she discussed synchronization tools—progestin, prostaglandin and GnRH. It is important to know the pregnancy status of females before starting a protocol. "When using a prostaglandin, be sure those females are not already pregnant because it can cause abortion in cattle up to five months gestation."

The estrus synchronization planner is a free tool producers can use for selecting a synchronization protocol, and it is managed by the Beef Reproduction Task Force (BRTF)—a team of researchers, Extension faculty members and industry individuals.

"I started using this in graduate school and have used it ever since. This tool is a free Excel spreadsheet you can utilize for one herd or multiple herds. You select the type of cattle (Bos taurus or Bos indicus, heifers or cows), what time you want to breed them and when to start breeding. It gives the recommended protocol for what you've chosen and a cost analysis to help you decide what protocol would be best costwise and for number of trips through the chute," Sanford said.

The BRTF keeps producers updated on all protocols. Every year, the team goes through all the research from the preceding year and all the data. "If any substantial new contributions have been made, they update their recommendations," she said.

There might be new research on timing of insemination, for instance. The BRTF does the footwork to improve the recommendations. "This is why the protocols for heifers and cows in the AI companies' brochures have a year date on them, because each year there could be a potential improvement or update," Sanford said.

The estrus synchronization planner has a tab that includes the newest protocols. "I've synchronized females for other people and can print this out or email it to them, showing that on such and such day they will be giving this injection and dosage. The planner creates two different calendar-type spreadsheets you can print out and use or send to someone or put on a bulletin board in the ranch shop—so everyone knows what's going on when you are working cattle and what you will be doing with them."

She explained the recommended protocols for heifers versus cows, and the seven-day CO-Synch + CIDR protocol. "You can use that for heifers and cows, but the timing from when you remove the CIDR until you inseminate is shorter in heifers," she said.

"I also talked about bulls, serving capacity, bull to heifer ratio, etc. We've looked at research comparing groups of heifers that were synchronized versus groups that weren't and the bull-to-heifer ratio in those groups," she said.

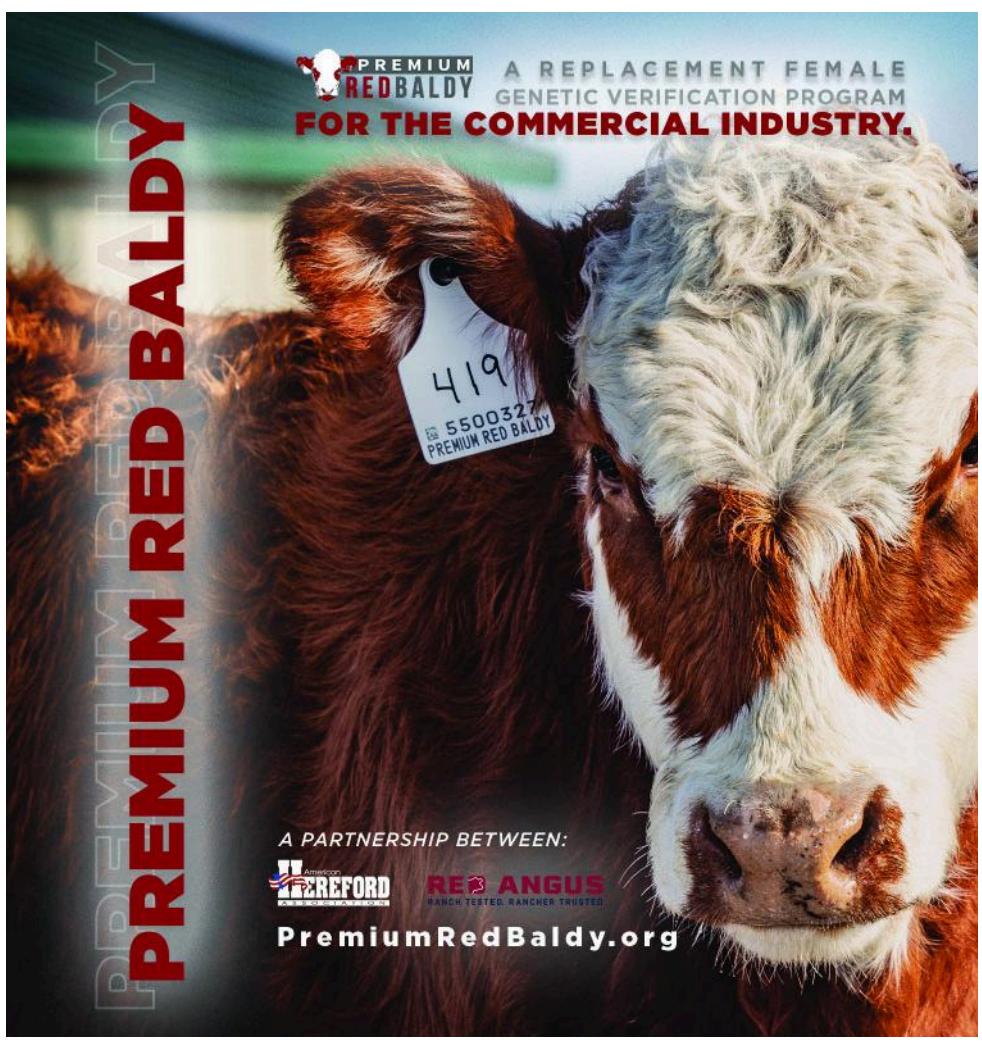
She also mentioned recommendations regarding hauling cows/heifers after conception. It is relatively safe to haul within the first four days, which is prior to the embryo moving into the uterine horn—attachment of the embryo to the uterine wall has not occurred yet. After that, the stress of transport (before the embryo is safely attached to the uterine wall) may create risk for early embryo loss.

"We also want to make sure we're using low-stress handling practices and have adequate facilities. Stress can increase cortisol production, which can block luteinizing hormone release. This can prevent ovulation. We don't want to put those animals through unnecessary stress, and certainly not to the level of compromising ovulation and conception."

— **Heather Smith Thomas, *WLJ* correspondent**







AI & GENETIC TECHNOLOGY

Bison calves leading the way for biobank creation

On July 10, 2020, researchers at the University of Saskatchewan's (USask) Livestock and Forage Centre of Excellence welcomed Skeeter and Mo, two highly anticipated additions to their bison population. The specialized livestock research facility is now home to approximately 50 wood and 50 plains bison, a demographically diverse group of bulls, cows and calves.

Born in the midst of the COVID-19 pandemic, these two wood bison male calves represent a significant achievement in the development of a diverse germplasm biobank that can effectively restore and uphold populations of North American bison.

Since the near-extinction event at the turn of the 20th century, wild bison herds continue to be threatened by human intervention, such as the introduction of endemic cattle diseases and cattle genetics to their populations, as well as the hybridization of wood and plains bison subspecies.

These threats have been compounded by the significant factors associated with transporting North America's largest land mammals. As a result, bison populations that include valuable genetics of both subspecies have become progressively more isolated.

The USask Bison Research Group is a team of multidisciplinary scientists studying advanced reproduction in bison—specifically how a particular technique for staging and preparing the embryo can lead to greater pregnancy success.

In 2017, Miranda Zwiefelhofer moved from Minnesota to Canada and began her graduate studies in the Western College of Veterinary Medicine's (WCVM) Department of Veterinary Biomedical Sciences. Since then, she has conducted bison research and supported wild bison as a species.

"(I have) always had an interest in the conservation of wildlife and ecology, so working with the bison was a perfect fit," says Miranda, a Ph.D. candidate at the WCVM.

Preservation of the isolated genetic material for this free-roaming population is no easy feat—and that's precisely why the birth of Skeeter and Mo was so momentous. The research and processes involved in generating the successive phases for developing the bison biobank are extensive, methodical and labor intensive.

"You have to collect the oocytes (eggs) from the bison, mature the oocytes and fertilize them with fresh or frozen-thawed semen," says Miranda, who works with her supervisor, Dr. Gregg Adams of the WCVM's Department of Biomedical Sciences. "Zygotes are cultured, and only approximately 20 percent will produce embryos."

These embryos must be frozen in a process called vitrification. They are then stored, thawed and transferred into a surrogate bison that will carry them until parturition (birth) in less than nine months' time.

"One wrong move at any of these crucial points stops the biobank from being successful," Miranda says. "The male side can be pretty straightforward; however, the female side is not. It is a difficult process (working with) wild animals and living cells. We are still learning how to adapt our protocols at every step."

As Miranda focuses much of her time on working with these cells in the lab and in the field, her husband, Eric Zwiefelhofer, Ph.D., handles a great deal of the work that's involved on the animal side.

A postdoctoral researcher in the WCVM Department of Veterinary Biomedical Sciences, Eric completes many of the on-farm procedures necessary for egg and embryo collection, embryo transfer and animal handling.

"I've worked with cattle my entire life, but working with bison is a completely different ball game," says Eric. "I've taken for granted the simplicity of embryo work in cattle, but translating these technologies in bison (a wild species) can be quite a challenge."

Success in every one of these meticulous steps is critical for the production of a live calf. At the end of the day, live calves are the key to propagating these valuable genetics and ensuring the bison species is preserved for future generations.

The key takeaway from the successive research studies is the creation of procedures for embryo production and freezing that are specific to the bison species. The Bison Research Group is currently refining and adapting protocols for use in wild free-roaming bison herds.

"Skeeter and Mo represent the third and fourth calves ever produced from frozen in vitro produced embryos, the very first produced from immature oocytes that were collected from living bison," says Miranda.

"(These calves) demonstrate that our present techniques are effective and that it is possible to move bison genetics in a biosecure manner—bringing us one step closer to implementation in the field."—**Jessie Hellquist, WCVM**

Vytelle expands network of bovine IVF laboratories

Vytelle is progressing on a five-year plan to provide accessible hormone-free bovine in vitro fertilization (IVF) to producers across the globe. Part of the five-year plan, initiated at the conclusion of their Series A funding, promised to double the laboratory capacity to produce bovine embryos through IVF.

Vytelle's integrated technology platform combines Vytelle ADVANCE, a breakthrough IVF technology, with Vytelle SENSE, an animal performance data capture system, and Vytelle INSIGHT, an artificial intelligence based genetic analytics engine.

The platform provides progressive cattle producers the technology to make reliable data-driven mating decisions that improve the predictability of genetic progress, replicating the right genetics faster through the most modern hormone-free IVF process. Vytelle's integrated platform has seen rapid growth since its launch in 2020, currently serving cattle producers in 21 countries.

"Cattle producers across the globe require rapid genetic progress to meet the growing protein demand from consumers," said Kerryann Kocher, CEO of Vytelle. "We're delivering accessible hormone-free in vitro fertilization solutions for producers to replicate their elite genetics faster, closer to their operation."

The three laboratories will be operational and accessible to cattle producers within the first quarter of 2022.

- **New York** — Located in Albany, NY, dairy and beef seedstock producers will be able to access Vytelle's hormone-free IVF through on-farm ovum pickups and satellite locations, coming soon to the region.
- **Texas** — The Brock, TX, laboratory is situated near the recently added Hoofstock Genetics POWERED BY VYTELLE satellite in Ranger. The Brock laboratory will add even greater flexibility for producers in Texas and across the U.S. to access Vytelle's hormone-free IVF.
- **Florida** — Serving producers in the Southeast region of the U.S, the Gainesville, FL, laboratory will meet the growing demand for a reliable hormone-free IVF solution.

Producers are able to access Vytelle's reliable bovine hormone-free IVF solution by bringing, at a minimum, one donor to any of the more than 20+ satellite locations across the U.S. or by scheduling an on-farm ovum pickup. Visit www.vytelle.com to learn more. — **Vytelle**

HUTCHISON HW BRAND
Stock Tanks - Waterers
www.hutchison-inc.com
1-800-525-0121




©NEOGEN Corporation, 2021. NEOGEN is a registered trademark of NEOGEN Corporation, Lansing, MI. Angus GS is a trademark of Angus Genetics.

THE INDUSTRY STANDARD NOW HAS HIGHER STANDARDS.
Next Generation Genetic Testing For Best Generation Angus.
Never satisfied. That's the true trait of any Angus breeder. Same with us. Angus GS™ is not resting on past accomplishments. There's more work to be done. With the addition of 22,000 SNPs, Angus GS becomes the unmatched Angus-specific genomic profiler. It provides greater power for traits including calving ease, birth weight, marbling, heifer pregnancy, and more. Realize your operation's full potential.
Visit angus.org/AGI/AngusGS for the next generation, and only, genomic test of its kind.
FOR ANGUS. BY ANGUS.
ANGUSGS
Powered by NEOGEN®
NEOGEN NEOGEN.com

Artificial intelligence predicts algae potential as alternative energy source

Texas A&M AgriLife Research scientists are using artificial intelligence to set a new world record for producing algae as a reliable, economic source for biofuel that can be used as an alternative fuel source for jet aircraft and other transportation needs.

Joshua Yuan, Ph.D., AgriLife Research scientist, professor and chair of Synthetic Biology and Renewable Products in the Texas A&M College of Agriculture and Life Sciences' Department of Plant Pathology and Microbiology, is leading the research project.

The team's findings were published in January in Nature Communications. Ongoing research is funded by the U.S. Department of Energy's Office of Fossil Energy. The work is also being funded by a gift from John and Sally Hood, who recently met with Yuan to discuss his biofuels research program. The gift is managed by the Texas A&M Foundation.

The project team includes Bin Long, a graduate student from the Department of Plant Pathology and Microbiology; Bart Fischer, Ph.D., co-director of the Texas A&M Agricultural and Food Policy Center and professor in the Texas A&M Department of Agricultural Economics; Henry Bryant, Ph.D., Department of Agricultural Economics; and Yining Zeng, Ph.D., staff scientist with the U.S. Department of Energy's National Renewable Energy Laboratory.

"The commercialization of algal biofuel has been hindered by the relatively low yield and high harvesting cost," Yuan said. "The limited light penetration and poor cultivation dynamics both contributed to the low yield."

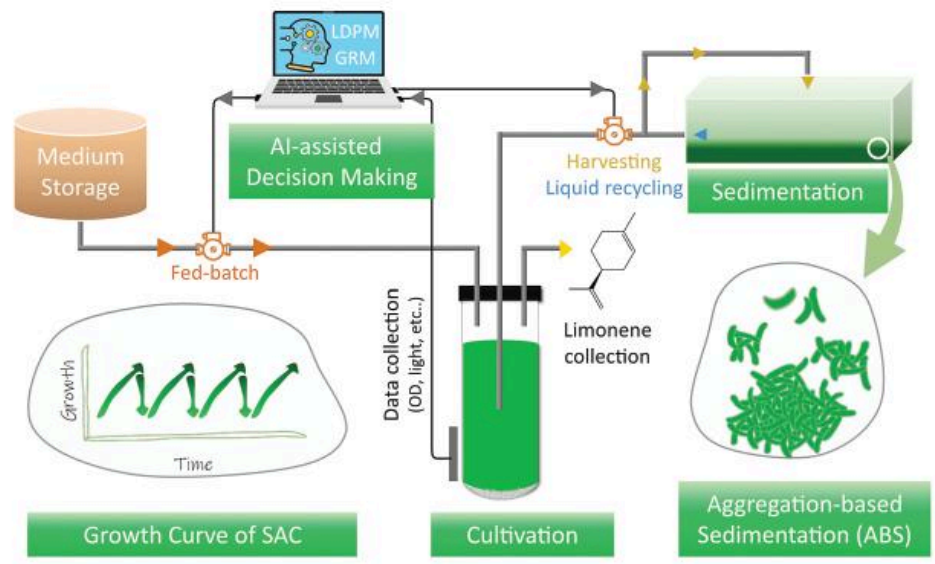
Overcoming these challenges could enable viable algal biofuels to reduce carbon emissions, mitigate climate change, alleviate petroleum dependency and transform the bioeconomy, Yuan said.

Yuan has previously been successful at finding methods to convert corn stubble, grasses and mesquite into biodegradable, lightweight materials and bioplastics. His latest project utilizes a patented artificial intelligence advanced learning model to predict algae light penetration, growth and optimal density. The prediction model allows for continual harvest of synthetic algae using hydroponics to maintain the rapid growth at the optimal density to allow best light availability.

The method Yuan and his team have successfully used in an outdoor experiment achieved 43.3 grams per square meter per day of biomass productivity, which would be a world record. The latest Department of Energy target range is 25 grams per square meter per day.

"Algae can be used as an alternative energy source for many industries, including biofuel and as jet fuel," Yuan said. "Algae is a good alternative fuel source for this industry. It's an alternate feedstock for bioethanol refinery without the need for pretreatment. It's lower cost than coal or natural gas. It also provides for a more efficient way of carbon capture and utilization."

Yuan said algae can also be used as a source for animal feed. AgriLife Research has previously investigated algae as a source of livestock protein.



Algae as a renewable energy

Algae biofuel is regarded as one of the ultimate solutions for renewable energy, but its commercialization is hindered by growth limitations caused by mutual shading and high harvest costs.

"We overcome these challenges by advancing machine learning to inform the design of a semicontinuous algal cultivation (SAC) to sustain optimal cell growth and minimize mutual shading," he said.

Yuan said he is using an aggregation-based sedimentation strategy designed to achieve low-cost biomass harvesting and economical SAC.

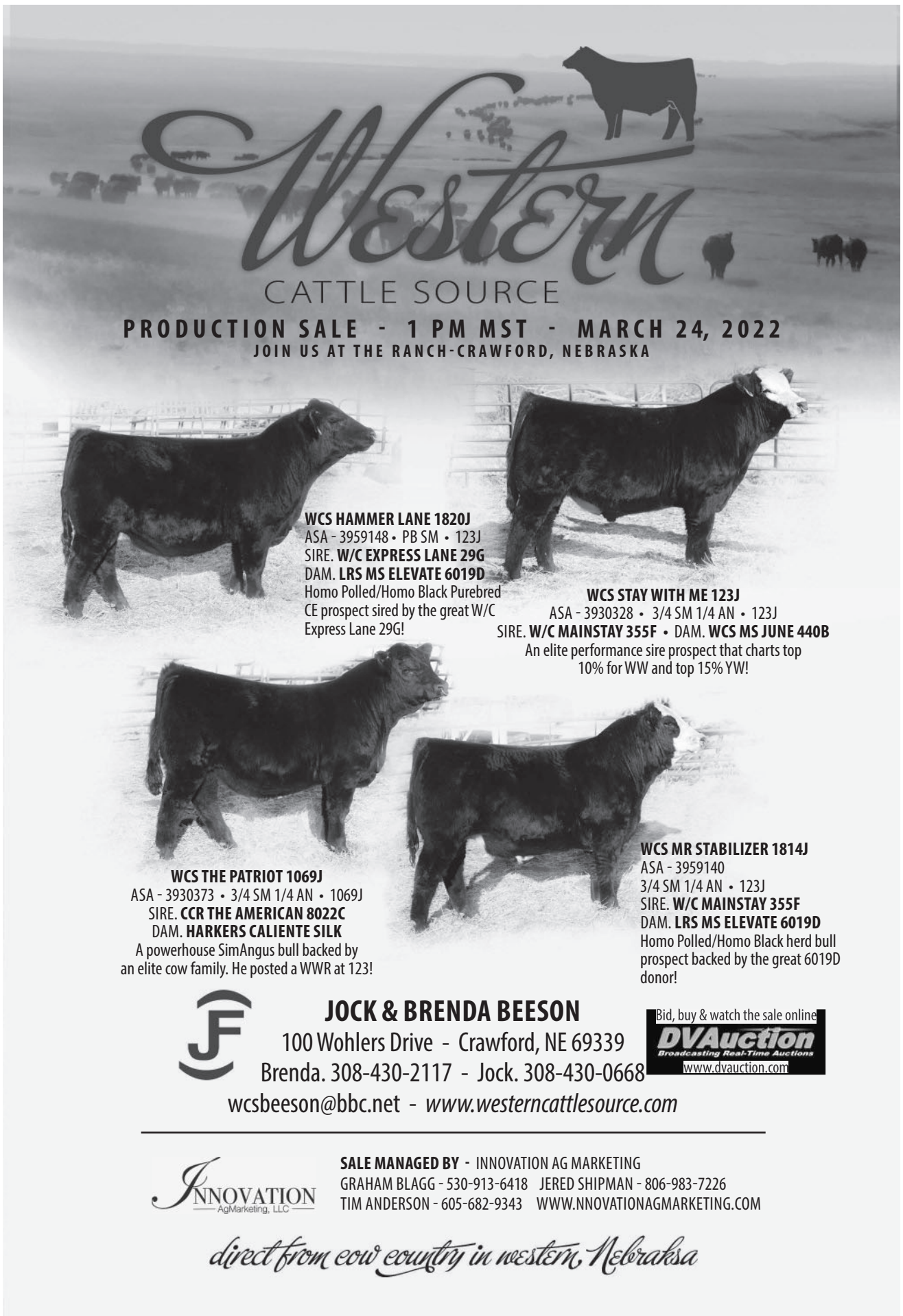
"The aggregation-based sedimentation is achieved by engineering a fast-growing blue-green algae strain, Synechococcus elongatus UTEX2973, to produce limonene, which increases cyanobacterial cell surface hydrophobicity and enables efficient cell aggregation and sedimentation," he said.

Scaling up the SAC with an outdoor pond system achieves a biomass yield of 43.3 grams per square meter per day, bringing the minimum biomass selling price down to approximately $281 per ton, according to the journal article. In comparison, the standard low-cost feedstock for biomass in ethanol is corn, which is currently approximately $6 per bushel or $260 per ton. However, Yuan's process does not call for costly pretreatment before fermentation. Corn must be ground, and the mash must be cooked before fermentation.

"Algae as a renewable fuel source was a hot topic a decade ago," Fischer said. "As a result, there's a lot of skepticism. I was even skeptical. However, the work that Joshua is doing is incredibly innovative. We were excited to partner on this project. At the productivity levels they obtain—and given the low-cost harvest that the strain allows—it shows a lot of promise."

Yuan said despite significant potential and extensive efforts, the commercialization of algal biofuel has been hindered by limited sunlight penetration, poor cultivation dynamics, relatively low yield and the absence of cost-effective industrial harvest methods.

"This technology is proven to be affordable and help propel algae as a true alternative form of energy," he said. — **Texas A&M AgriLife Extension**





May 1953, Vol. 31, No. 29

Letter to the editor: Tighten belts and wait

I have been reading in your Western Livestock Journal about what the livestock people don't want and as a livestock grower I will say that there probably are a few who are against a floor for cattle. But the majority would rather know they are going to get something for all their work and the money they spend to keep other industries making money.

They seem to forget it is our money that the government uses to protect the steel, coal, car and many, many other industries. They can plan their business ahead as they know what they are going to get. They are not floating around in space wondering if they are going to get something for their year's work—they know they are.

But the old cowman likes to be called the rugged individualist who can tighten his belt and wait and go in debt to see if cattle will bring him a price where he can pay the high prices and high wages to keep his outfit going rather than know they can't go below a certain price—which would give him a chance to live like other people and not have that mortgage hanging over his head. Everyone seems to think a rancher or farmer should have that mortgage necklace around his neck continually.

I do not know why they are set against government control. The government controls our forest range, our Taylor grazing, tells us when to go on and when to come off of them, cuts our numbers when it wants to and controls our taxes. I really do not see how it would hurt us in any way to know cattle could not go lower than a certain price.

The other industries don't have to wait for supply and demand to keep their outfits going—they know they are going. We don't. We pay for the other fellow to keep going, but not us. We are the ones who don't want any price for our products.

Here is one who does not want to tighten her belt any more than it is. I want something for my cattle that have cost me plenty of money. — **Alma Woods, Austin, Nev.**

Researchers develop tool to make irrigation more efficient

Agriculture's future in Nebraska and globally will depend in great part on efficient water use. A research paper by University of Nebraska-Lincoln (UNL) scientists points to an innovative irrigation approach that offers promise to decrease water use while increasing producer profitability.

Traditionally, the level of needed irrigation has generally been determined by gauging water availability in the soil. An irrigation-scheduling algorithm developed through testing at 12 locations across Nebraska includes an additional factor—the level of water concentration in the atmosphere.

That approach "takes both the water supply and demand into consideration, and that's where we're hoping to gain some efficiency by looking at both simultaneously," said Trenton Franz, associate professor of hydrogeophysics at UNL. "That's fairly complicated, so this algorithm does a fairly nice job of trying to basically optimize the processes, as well as making it more automatic."

In an article in the journal Nature Communications, Franz and co-authors found that the algorithm-guided irrigation approach could reduce irrigation water use by 24 percent while maintaining crop yields and increasing profits by 11.2 percent and water productivity by 25.2 percent. As a result, the article said, this new methodology "could significantly improve water sustainability."

Achieving greater water efficiency has growing importance in the face of global climate challenges, the researchers said.

The article's co-authors include Daran Rudnick, associate professor and irrigation management specialist in the Department of Biological Systems Engineering, and Andrew Suyker, research professor of micrometeorology in the School of Natural Resources.

If follow-up testing currently underway confirms the algorithm's practical use, the technology could drive improved water efficiency among the large majority of agricultural producers who don't use soil moisture sensors, said Franz, associate director for research in the School of Natural Resources. About 10 percent to 15 percent of producers use moisture probes.

"It's that missing 85 percent of people who aren't too interested in using soil moisture probes who really make a big difference," Franz said. "So maybe instead of saving 4 inches of water using good probe management, maybe this algorithm could save 1 to 3 inches, but over a much wider range of people who are willing to have a lower investment in that. It's very time consuming to manage these soil moisture probes, so I know that's one barrier to adoption."

The best approach would be a "semiautonomous" use of the algorithm to maintain a degree of producer control, Franz said.

Researchers tested the algorithm at 12 locations across Nebraska, using data from UNL's Eastern Nebraska Research, Extension and Education Center near Mead to calibrate the model tested at the other sites.

In a follow-up to the initial study, Rudnick, working out of the West Central Research and Extension Center near North Platte, is overseeing current tests of the algorithm by scientific teams from the university, state agencies and producer groups. Husker students will participate through the Testing Ag Performance Solutions program, in which student teams compete in field tests to maximize positive results in terms of irrigation water use, profitability and water productivity. The follow-up testing is now in its second year.

This testing, Franz said, "will include head-to-head comparisons against other scheduling methods—business as usual, producer groups, rain-fed, etc.—to see how the algorithm performs in a blind test. This is critical to further show the utility of the method."

Water issues have long been a part of life for Franz, a Colorado native.

"Growing up on the Front Range, water was always a concern," he said.

He has extended family in the eastern Colorado farming community, and his grandfather and an uncle both worked for the state's Division of Water Resources.

Franz has scientific expertise in a wide range of water-related sensors, and his exploration of water science has long taken him into global outreach. He did his doctoral work in Kenya, where he studied water impact, and he works extensively with the United Nations' International Atomic Energy Agency to train scientists from other countries and go on expert missions.

In his work with the United Nations, he helps countries deploy soil moisture sensors using cosmic ray neutron radiation. In December, he traveled to Bolivia to help the country deploy such sensors to monitor glacier water melt and better study the impact on the water supply for La Paz, the nation's administrative capital.

Such monitoring technology alone "is no panacea," Franz said. "It has to come with good education and infrastructure" in terms of a country's societal investment.

As for irrigation agriculture, any solutions to improving water efficiency "need to also be profitable for producers to adopt them," Franz said. The irrigation algorithm attempts to meet a range of requirements for producers so that "the solution is both cost effective and scalable across a broad area." — **UNL Extension**



Craig Chandler

A research paper by Trenton Franz, associate professor of hydrogeophysics at UNL, and co-authors points to an innovative irrigation approach that could decrease water use while increasing producer profitability.

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.)

March 18 – The Texas and Southwestern Cattle Raisers Association has an internship opportunity for students to assist during the summer months in the headquarters office in Fort Worth, TX. A cover letter, resume and letter of recommendation should be sent to education@tscra.org. Details: tscra.org/who-we-are/employment.

March 31 – Dairy MAX will award three $2,500 academic scholarships. Scholarship applications are now open until March 31, 2022. Students must reside in the Dairy MAX region, be a graduating high school senior or an undergraduate student currently enrolled in college and be a child of a dairy farmer, child of a dairy farm employee or an FFA/4-H dairy show participant. Details: DairyMAX.org/dairy/scholarships.

April 1 – The North American Limousin Junior Association is looking for a media intern for the duration of the 2022 National Junior Limousin Show and Congress, June 25-July 1. If interested, please send a resume, cover letter and two references to mallory@nalf.org.

April 15 – The Kansas State University Department of Animal Sciences and Industry has opened applications for the Kansas State University Animal Science Leadership Academy, which will be held June 22-25 and June 29-July 2 in Manhattan, KS. The academy is available to high schoolers from across the U.S. Registration and more information are available at www.asi.k-state.edu.

May 2 – The Oklahoma Cattlemen's Foundation will distribute more than $25,000 in scholarships to students in 2022. The scholarships are available for current college students at an Oklahoma university with definite plans to continue in the fall or for graduating high school seniors who have an interest in the beef cattle industry. Details: www.okcattlemen.org.

June 15 – Tavaputs Ranch is honoring the memory of the late Tate Jensen through an annual $2,500 scholarship. Applicants must be seniors in college or in a graduate student program and studying agriculture or natural resources. Applications must include an essay with the applicant's background, college involvement and their future plans. Applications can be submitted to jennie.m.jensen@gmail.com or by mail to Jennie Christensen at P.O. Box 725, Price, UT 84501.

SILVER BIT
Angus Ranch
Same Proven Program For Over 50 Years!
31st Annual Bull Sale Tuesday, March 29, 2022 ~ Lunch @ Noon, Sale @ 1pm


w1023 SAV President x 926(Sitz Upward 307R)

Selling
120 ~ Yearling Black Angus Bulls
15 ~ 2 yr Old Black Angus Bulls
200 ~ Top Quality Black Angus Replacement Heifers
Selling Sons of....
SAV America 8018 ~ SAV Territory 7225 ~ SAV President 6847
SAV Raindance 6848 ~ SAV Emblem 8074 ~ SAV Resource 1441
Tehama Tahoe B767 ~ SAV Rainfall 6846



SAV America 8018 Sons

- Silver Bit Bulls sire calves that gain, convert, & grade at the top end of thousands of calves in feedlots they've gone to. Silver Bit sired calves have consistently been the top selling calves on the summer Superior Livestock Video Sales.
- Silver Bit Bulls come from one of the strongest herds of Angus cows anywhere. Wide based, easy fleshing, good footed, good milking, with tight udders & small teats. Lots of generations of breeding like kind to like kind for a consistent maternal package.
- Embryo Program based on the best proven Angus genetics! Including SAV Blackcap May 5833, direct daughter of the great SAV Blackcap May 4136. SAV Madame Pride 5807,direct daughter of SAV Madame Pride 0075 who is the dam SAV America 8018, the all time record setting high selling bull.
- Silver Bit Ranch AI's to only the Best Proven Sires!
- Low to Moderate birth weights for consistent, easy calving!
- PAP Tested ~ Semen Tested ~ Ultrasound Carcass Tested ~ BVD PI Free Tested

SUPERIOR Productions SLA-TV

For More Info Contact ~
Scott Whitworth 208 940 0433 or Gwen Whitworth 208 940 1507 silverbit_ranch@yahoo.com



Product News

Merck Animal Health receives FDA approval of antibiotic AROVYN

— BRD, pinkeye and foot rot

Merck Animal Health, known as MSD Animal Health outside the United States and Canada, a division of Merck & Co. Inc., Kenilworth, New Jersey (NYSE:MRK), today announced it has received U.S. Food and Drug Administration (FDA) approval of AROVYN (tulathromycin injection)—a broad-spectrum, prescription antibiotic that treats the major organisms associated with bovine respiratory disease (BRD), foot rot and pinkeye.

"Merck Animal Health is pleased to add AROVYN to our comprehensive, trusted portfolio of cattle antimicrobials. AROVYN gives veterinarians a new option when prescribing tulathromycin—which is proven to help treat some of the most common and costly cattle disease challenges," said David Sjeklocha, DVM, technical services manager at Merck Animal Health.



"While adhering to vaccination protocols can certainly help keep animals healthy, some animals still will get sick. New AROVYN is for those situations requiring early diagnosis and an effective treatment program, so animals can recover quickly."

In beef and non-lactating dairy cattle, AROVYN is indicated for the treatment of BRD and control of respiratory disease in animals at high risk of developing BRD associated with Mannheimia haemolytica, Pasteurella multocida, Histophilus somni and Mycoplasma bovis. It also is approved for treatment of pinkeye or infectious bovine keratoconjunctivitis associated with Moraxella bovis, plus treatment of foot rot associated with Fusobacterium necrophorum and Porphyromonas levii. In suckling calves, dairy calves and veal calves, AROVYN is indicated for treatment of BRD associated with M. haemolytica, P. multocida, H. somni and M. bovis.

"Our commitment to continuously improve the health and well-being of cattle is the driving force behind our work to bring new vaccines, diagnostic technologies and antimicrobials to market," said Sjeklocha. "In the past 18 months, to help our customers better manage BRD, Merck Animal Health has introduced two innovative diagnostic technologies, Whisper On Arrival and SenseHub Feedlot, a first-of-its-kind intranasal vaccine, Bovilis Nasalgen 3-PMH, and now AROVYN, an antimicrobial important in many cattle treatment protocols."

AROVYN—a prescription antibiotic for cattle and swine—will be available from or on the order of a licensed veterinarian starting in May 2022. It will come in 100, 250 and 500 milliliter vials. It is manufactured in the same facility as other Merck Animal Health antimicrobials, such as ZUPREVO (tildipirosin), with the same high-quality assurance guidelines.

To learn more about AROVYN, visit www.merck-animal-health-usa.com.

Important safety information

AROVYN has a pre-slaughter withdrawal time of 18 days in cattle. Do not use in female dairy cattle 20 months of age or older. Do not use in animals known to be hypersensitive to the product. See full prescribing information. — **Merck Animal Health**

Sure Champ Extreme is now available with ClariFly



Show livestock get some of the best care possible. At BioZyme Inc., we want to make sure it stays that way. When springtime temperatures start to climb, another stressor becomes more apparent—flies. That is why BioZyme has now formulated Sure Champ Extreme with ClariFly to combat the elevated temperature and stop flies in their larval stage.

Sure Champ Extreme with ClariFly is a daily supplement with the Amaferm advantage for show cattle and pigs that can be top-dressed or mixed into the ration to promote appetite and digestive health. It includes technologies designed to help support animals during elevated temperatures, as well as control four common flies (horn, face, stable and house flies) in their larval stage, helping reduce two common stressors to show livestock.

"Flies are a huge problem in the summer months, and their annoyance to show livestock can change behaviors, add stress or health challenges and reduce performance. If you want to be competitive, proper fly control is paramount in keeping your show stock healthy, stress free and on feed," said Chris Cassady, Ph.D., BioZyme technical sales field manager.

The new Sure Champ Extreme with ClariFly formula will be sold in 40 pound bags and will be available for purchase beginning March 21. Because ClariFly controls flies in their larval stage, it is recommended to be fed before flies start hatching for best results. So, in the southern U.S., it would ideally start in March; in the central U.S., between March 15 and April 15; and in the northern U.S., by May 1. It can be fed all summer long to control flies, and Cassady gave a reminder that there is no effect on the carcass, so there is no withdrawal time on market animals.

"Delivering ClariFly larvicide directly into your feed supplement allows you to easily control the emergence of face, house, stable and horn flies in the manure. Reducing the number of flies on the premise keeps animals comfortable and on feed. There's no room for error in the summer show season; keep them healthy and stress free with Sure Champ Extreme with ClariFly," Cassady encouraged.

Help your show cattle and pigs #PreptoWin this summer by beating the stress of heat and flies with products from Sure Champ.

To learn more about Sure Champ Extreme with ClariFly or to find a dealer near you, visit www.surechamp.com. — **BioZyme Inc.**



Researchers uncover new clues for improving wheat

Kansas State (K-State) University researchers continue to unlock the complexity of the wheat genome, recently publishing findings of a study that characterized numerous genes duplicated thousands of years ago to understand how they control wheat yield and other desirable traits.

Wheat geneticist Eduard Akhunov, the director of K-State's Wheat Genetics Resource Center, said his team's research may lead to greater opportunities for breeders to perform "targeted breeding" that can increase grain size and number—ultimately increasing yields.

Akhunov said the researchers studied the role of gene copies available from each of the respective genomes in polyploid crops, those that contain more than two sets of chromosomes, in shaping main agronomic traits.

Bread wheat, he added, is polyploid, formed nearly 10,000 years ago from merging the genomes of two wild ancestors: tetraploid wild emmer wheat (which has a genome formula known as AB) and diploid goatgrass (with genome formula D).

"As a result, most genes in wheat exist in three copies, one from each of the A, B and D genomes," Akhunov said.

"This gene redundancy creates a number of possibilities for interactions between genes and has, over time, contributed to new adaptations, making wheat capable of growing and producing grain in more diverse climatic conditions," he said.

In the current study, K-State researchers tested combinations of the gene copies to see what impact they would have on wheat's growth and productivity.



K-State Research and Extension

Eduard Akhunov and a team of K-State researchers have led an international project to study copies of wheat genes duplicated thousands of years ago.

"Normally, gene copies from each of (three) respective genomes in wheat are expressed in equal proportions," Akhunov said. "But we found that there is a relatively small subset of genes where copies from different wheat genomes are expressed at different levels," referred to as an imbalanced expression of genes.

The imbalanced expression of genes, he added, turned out to have a positive effect on the wheat plant, in many cases increasing grain size, weight and number.

"Our study suggests that over many years, breeders have been selecting combinations of imbalanced genes that positively impacted yield in diverse climatic environments," Akhunov said.

This is important for wheat growers; breeders could use this knowledge to develop new high-yielding wheat varieties capable of growing in a variety of climates.

According to an article from the National Center for Biotechnology Information, polyploidy is a "major force in the evolution of both wild and cultivated plants." Scientists believe polyploid organisms exhibit increased vigor and—in some cases—outperform their diploid relatives in several aspects.

Akhunov said the research represents a large effort led by his research lab in collaboration with the Wheat Coordinated Agricultural Project, funded by the USDA National Institute of Food and Agriculture and the Bill and Melinda Gates Foundation.

The project was part of the International Wheat Yield Partnership, in which wheat researchers around the world are cooperating to find solutions to increase wheat yields. — **K-State Research and Extension**

Cow-calf management strategies and research

— Beef welfare symposium

The Sixth International Symposium on Beef Cattle Welfare's second webinar session features experts discussing the latest in cow-calf production on March 23 at 2 p.m. EST. The symposium will occur monthly, on the fourth Wednesday, from February through June, with presentations taking place from 2-4 p.m. EST.

Attendees will hear from researchers and producers from across the U.S. as they discuss the latest research and best practices for cow-calf management, particularly in young stock, along with the latest in industry standards, while also exploring opportunities to improve land management through regenerative agricultural practices.

"We are excited to take a closer look at cow/calf production from an efficiency, health, welfare and financial perspective," said Dan Thomson, DVM, Ph.D., with the Department of Animal Science at Iowa State University. "This session offers something for everyone from the producer and veterinarian to the researcher and industry representative as we explore novel concepts in cow-calf production."

The second webinar on March 23 features the following speakers:

• Kip L. Lukasiewicz, DVM, is the owner of Sandhills Cattle Consultants Inc. and an equal partner with Production Animal Consultation LLC, as well as Aerobos. Lukasiewicz will discuss their cow-forward work that starts from changes in interactions from day one, to weaning in cow-calf pairs that is resulting in reduced cull rates in cows, improved calf health and increased calf weaning weights.

• Thomson is an internationally known leader, researcher and instructor in animal health management, animal welfare and beef cattle production. He is currently a professor at Iowa State University and founded the Beef Cattle Institute in Kansas State's College of Veterinary Medicine. Thomson will focus on the weaning stage of calf production, the latest immune system research and what steps producers can take to ensure a healthier calf at weaning and improved overall weight gain.

• Kim Brackett co-owns and operates Brackett Ranches LP with her husband, Ira. Brackett Ranches is a cow-calf and stocker operation based in southern Idaho and eastern Oregon. Kim has extensive experience in the cattle industry and will share the latest in Beef Quality Assurance feedyard assessments, calf care quality assurance and the research results that are being used to develop the cow-calf assessment.

• Jason Rowntree is the newest C.S. Mott Professor of Sustainable Agriculture in the College of Agriculture and Natural Resources and serves in the Department of Animal Science at Michigan State University. Rowntree specializes in sustainable and regenerative agriculture with outcomes that include improving land quality, increasing productivity and keeping water clean, all while keeping the industry profitable.

He will share the latest research and impact studies around whole-herd management and provide strategies to improve utilization of marginal grounds, adjustments in stock base per acre and reductions in greenhouse gas emissions that all equate to improved animal welfare and financial gain.

"Our goal with these sessions is to not only provide new concepts and strategies for producers to implement to improve their operations, but also to spur discussion and innovation among everyone, from academia to the industry, as a way to think differently about cattle welfare from the cow and calf to the land and environment," said Janice Swanson, Ph.D., professor in the Department of Animal Science and Large Animal Clinical Sciences at Michigan State University.

"We hope to expand the discussion and concepts in beef welfare to not just meet consumers' growing expectations, but exceed them in the future."

Throughout its five webinars, the symposium will bring together renowned beef experts to discuss their latest research findings and emerging animal welfare issues that face the beef cattle industry. The symposium features topics of interest for anyone connected to the beef industry, from academia and government to beef producers and allied industries. Participants will be encouraged to ask questions and provide input to the conversation.

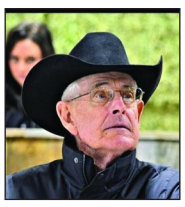
The webinar series is free, thanks to the generous grant support of the USDA's National Institute of Food and Agriculture. Those interested in attending may register at events.anr.msu.edu/isbcwmca.

For more information about the program, visit www.canr.msu.edu/beefwelfare2022. — **Michigan State University Extension**



SALE REPORTS

KEARNS CATTLE CO.
ANNUAL BULL SALE
March 3, Rushville, NE
80 Bulls $5,625
Auctioneer:
Col. Jered Shipman
Sale Manager: Innovation AgMarketing LLC



GIES

TOPS: KCC1 Folsom 76J, 3/12/21 by KCC1 Folsom 512F; to Moriondo Farms, Mount Vernon, MO, $20,000. KCC1 Remedy 538J, 2/26/21 by SO Remedy 7F; to Travis Goings, Pine Ridge, SD, $18,000. KCC1 Exclusive 720J, 2/25/21 by KCC1 Exclusive 116E; to 3B Cattle Company, Greenville, TX, $15,000. TKCC Folsom 511J, 2/26/21 by KCC1 Folsom 512F; to Zach Kraenow, Lakeside, NE, $13,500. KCC1 Folsom 320J, 3/12/21 by KCC1 Folsom 512F; to Pete Marshall, Oshkosh, NE, $11,000. — **JIM GIES**

LAZY JB ANGUS ANNUAL BULL SALE
March 5, Montrose, CO
38 Yearling Angus bulls $6,853
25 Yearling Angus heifers 2,428
Auctioneer: Dennis Metzger

TOPS—Bulls: Lazy JB Outlier 1416, 3/21/21 by Freys Outlander; to Overmiller Gelbvieh & Red Angus, Smithcenter, KS, $16,000. Lazy JB Incredible 1986, 2/16/21 by KR Incredible 8451; to Sikes Ranch, Pritchett, CO, $15,000. Lazy JB Sagebrush 1733, 3/27/21 by Ellingson Sagebrush 6234; to Schneider Ranch, Fort Morgan, CO, $11,000. **Open heifers:** Lazy JB Lexus 168, 6/5/21 by Freys Outlander; to Greg Norman, Sidell, IL, $7,000. Lazy JB Evidence 105, 3/22/21 by Lazy JB Sundance 6428; to Josh Valdez, Brewster, NE, $4,000. Lazy JB Belladonna 156, 5/26/21 by Lazy JB Edge 8745; to Hannah Faubion, Lamar, MO, $3,100. — **JIM GIES**

WAGON WHEEL RANCH ANGUS CONNECTION SALE
March 8, Yuma, CO
32 Yearling bulls. $4,161
38 Commercial yearling heifers 1,270
Auctioneer: Dustin Carter

TOPS: WWR Ashland J7, 1/28/21 by GAR Ashland; to Kent Goeglein, Yuma, CO, $7,800. WWR Growth Fund J28, 2/7/21 by Deer Valley Growth Fund; to Mike Lebsack, Yuma, CO, $7,500. WWR Rainfall J3, 1/23/21 by SAV Rainfall 6846; to Blach Company, Yuma, CO, $6,750. WWR MVP J18, 1/24/21 by B/R MVP 5247; to Tony Vick, Hugo, CO, $6,000. — **JIM GIES**

HORNUNG LIVESTOCK
March 9, Vona, CO
23 Total registered bulls $4,695
13 Older bulls. 5,346
5 Yearling Simmental bulls 4,600
10 Yearling bulls. 3,850
Auctioneer:
Cody Lowderman

TOPS: HLS Mr Signal 021, 8/22/20 by V A R Signal 7244; to Ron Dobler, Burlington, CO, and Caleb Nitsch, Burlington, CO, $11,000. HLS Mr Home Run 1HR28, 2/24/21 by Brooks Home Run; to Cody Gay, Burlington, CO, $9,000. — **JIM GIES**

SPLIT DIAMOND RANCH ANNUAL BULL SALE
March 3, Dillon, MT
102 Yearling bulls. $5,422
Auctioneer: Greg Goggins

TOPS: SD Dually 9009-1004, 1/9/21 by DL Dually; to Hooks Ranch, Big Timber, MT, $18,500. SD Dually 9009-1053, 1/17/21 by DL Dually; to Nelson's Spring Creek, Livingston, MT, $10,000. SD Exemplify 7269-1164, 2/2/21 by Linz Exemplify 71124; to Louis Scatena, Yerington, NV, $9,500. SD Exemplify 1001, 1/1/21 by Linz Exemplify 71124; to Nelson's Spring Creek, Livingston, MT, $8,750. SD Logo 1079, 1/19/21 by Sitz Logo 8148; to Hansen Livestock, Dillon, MT, $8,000. SD Cowboy Up 2933-1605 W, 3/5/21 by HA Cowboy Up 5405; to Louis Scatena, Yerington, NV, $8,000. — **DEVIN MURNIN**



MURNIN

SUTHERLIN FARMS RED ANGUS ANNUAL PRODUCTION SALE
March 4, Stevensville, MT
74 Yearling bulls. $4,436
160 Commercial open heifers 1,601
Auctioneer: Greg Goggins

TOPS: SUTH Free Style 48J, 2/17/21 by SUTH Free Style 38G; to Crow Creek Ranch, Ronan, MT, $9,750. SUTH Deep End 60J, 2/22/21 by Bieber Deep End B597; to Redland Red Angus, Hysham, MT, $8,000. SUTH Free Style 59J, 2/19/21 by SUTH Free Style 38G; to McDowan Ranch, Drummond, MT, $8,000. SUTH Declaration 114J, 2/27/21 by HXC Declaration 5504C; to Tash Livestock, Polaris, MT, $7,500. SUTH Deep End 94J, 2/24/21 by Bieber Deep End B597; to Cross Diamond Cattle, Bertrand, NE, $7,500. — **DEVIN MURNIN**

MCCANN RED ANGUS ANNUAL BULL SALE
March 5, Billings, MT
52 Yearling bulls. $4,297
7 Registered open heifers 2,621
Auctioneer: Greg Goggins

TOPS: McCann Resource 1075, 1/8/21 by RED MRLA Resource 137E; to Cathy Stalcup, Gillette, WY, $15,000. McCann Resolution 1113, 1/22/21 by Crump Innovation; to Dustin Evans, Whitman, NE, $10,500. McCann Direct Affect 1221, 1/3/21 by Crump Direct Affect 9861; to Henderson Ranch Inc., Lodgepole, SD, $7,250. — **DEVIN MURNIN**

LUCKY 7 ANGUS ANNUAL BULL SALE
March 5, Riverton, WY
328 Total bulls $6,047
248 Older bulls. 6,103
24 Fall yearling bulls . . .5,895
56 Bull calves. 5,861
Auctioneers: Warren Thompson & Colby Hales

TOPS: Lucky 7 Special Focus 0105, 3/30/20 by Lucky 7 Special Focus 448; to Harding Ranch, Meriden, WY, $16,500. Lucky 7 Esquire 0329, 4/5/20 by EGL Esquire 7053; to DeGrand Angus, Baker, MT, $15,000. Lucky 7 Esquire 0158, 4/10/20 by EGL Esquire 7053; to Tom Porter, Glen Elder, KS, $12,500. Sand Mesa Confidence Plus 11, 2/4/21 by Sterling Confidence Plus 804; to Jay Murnion, Miles City, MT, $11,750. Lucky 7 Special Focus 125, 1/24/20 by Lucky 7 Special Focus 448; to Steppler Ranch, Culbertson, MT, $11,000. Lucky 7 Cash 0126, 4/8/20 by TM Cash 516; to Robert Fortune, Belvedere, SD, $11,000. — **DEVIN MURNIN**

REDLAND RED ANGUS ANNUAL BULL SALE
March 5, Hysham, MT
62 Bulls $4,250
4 Open registered heifers 2,975
48 Open commercial heifers 1,483
Auctioneer: Kyle Shobe

TOPS—Bulls: Red Real World 137, 1/27/21 by Brown JYJ Redemption Y 1334; to Wendell Bailey, Louisville, KY, $15,000. Red Relentless 1089, 2/12/21 by STRA Relentless; to Klompien Red Angus, Manhattan, MT, $10,000. Red Statement 124, 1/25/21 by Pelton Statement 225W; to Steve Troutman, Enderland, ND, $8,250. Red Merlin 1144, 2/16/21 by WFL Merlin 018A; to Greenleaf Cattle, Colstrip, MT, $8,000. Red Spartacus 182, 2/1/21 by Bieber Spartacus A193; to 3C Cattle, Stevensville, MT, $7,500. **Females:** Red Eve 1040, 2/8/21 by LSF SRR Exceptional 5464C; to Gibbs Red Angus, Jordan, MT, $3,750. Red Linda 1171, 2/20/21 by Pelton Wideload 78B; to Laubach Red Angus, Big Timber, MT, $3,500. — **DEVIN MURNIN**

BULLS OF THE BITTERROOT ANNUAL BULL SALE
March 6, Stevensville, MT
44 Yearling bulls. $4,608
50 Commercial open heifers 1,447
Auctioneer: Collin Gibbs

TOPS: GC 3C Crackerjack 1239, 2/5/21 by Musgrave Crackerjack; to Buddy Bras, Hot Springs, MT, $7,000. 3C Feature 1111, 2/9/21 by Musgrave Feature; to Amanda McArthur, Corvallis, MT, $6,500. 3C 406 Stellar 1003, 1/21/21 by Sitz Stellar 726D; to Robert Jackson, Stevensville, MT, $6,250. 3C Stellar 1009, 1/21/21 by Sitz Stellar 726D; to Two Feathers Ranch, Darby, MT, $6,000. — **DEVIN MURNIN**

SITZ ANGUS BULL SALE
March 9, Dillon, MT
249 Yearling bulls. $8,635
76 2-year-old bulls. 5,368
80 Commercial open heifers 1,487
Auctioneers: Joe Goggins & Greg Goggins

TOPS: Sitz Essential 731J, 1/18/21 by Sitz Stellar 726D; to Spring Cove Ranch, Bliss, ID, $100,000. Sitz Accomplishment 700JH, 1/22/21 by Sitz Accomplishment 720F; to Andy Stellpflug, Glenrock, WY, $92,000. Sitz Stellar 729J, 1/18/21 by Sitz Stellar 726D; to Kessler Angus, Milton, OR, and Birch Creek Ranch, Ruby Valley, NV, $57,500. Sitz Dignity 599J, 1/30/21 by Sitz Resilient 10208; to JJ Angus, Connellsville, PA, $52,500. Sitz Impulse 732J, 1/18/21 by Sitz Resilient 10208; to KG Ranch, Three Forks, MT, $49,000. Sitz Stellar 705J, 1/22/21 by Sitz Stellar 726D; to Colyer Herefords and Angus, Bruneau, ID, $40,000. Sitz Resilient 718J, 1/20/21 by Sitz Resilient 10208; to Albrecht Ranch, Wapanucka, OK, and Pentz Angus, Caddo, OK, $32,500. Sitz Resilient 558J, 2/3/21 by Sitz Resilient 10208; to Bruner Angus, Drake, ND, and NorthWay Cattle Co., Cleardale, AB, $31,000. Sitz JLS Logo 725J, 1/19/21 by Sitz Logo 8148; to Pilakowski Angus, Arthur, NE, $25,000. Sitz Thunderball 742J, 1/13/21 by Sitz Thunderball 734E; to Skinner Ranch Seedstock, Hall, MT, $23,000. Sitz Accomplishment 483J, 2/19/21 by Sitz Accomplishment 720F; to Hilltop Angus, Denton, MT, $21,000. Sitz Accomplishment 713J, 1/21/21 by Sitz Accomplishment 720F; to Darrell Russell, NE, $20,000. — **DEVIN MURNIN**

When confronted with a challenge, it's good to remember how you have overcome them before.

Stick with what *works*.

Open Gate Ranch
42nd Annual Bull Sale

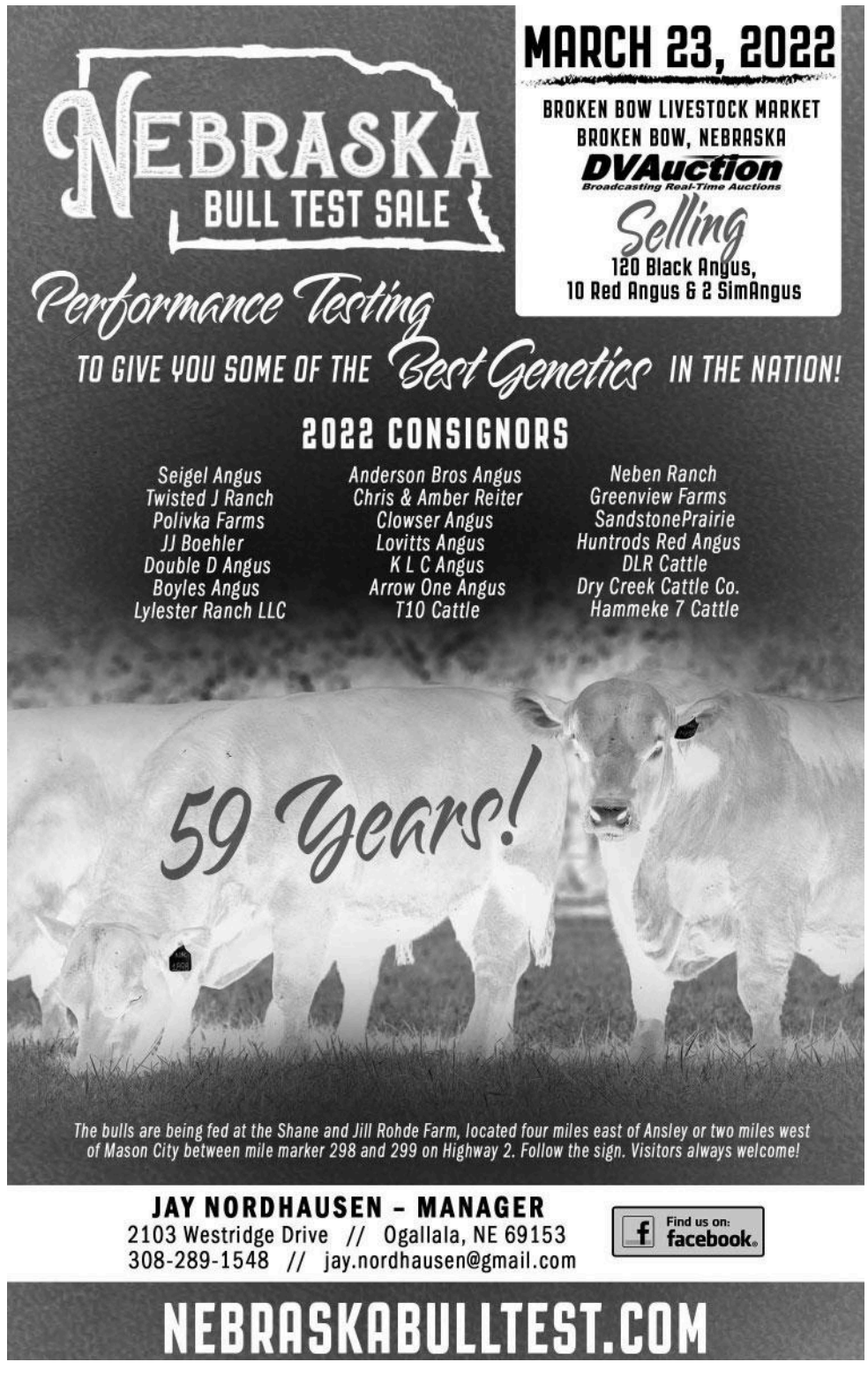
Thursday, March 31, 2022
1:00 PM (MT) • Simms, MT
At Broken 0 Land and Livestock

RELIABLE || ATTRACTIVE || PROFITABLE

90 Bulls Sell
BLACK • RED • SIMMENTAL • SIMANGUS™
Yearling and Fall Born BEEF Bulls

OPEN GATE RANCH
The Mike and Kim Richert Family
Rocky Mountain Front, Montana
406-467-2082
www.OpenGateRanch.com

ALLIED GENETIC RESOURCES
Marty Ropp 406-581-7835
Rocky Forseth 406-590-7984
www.alliedgeneticresources.com



BEEF BITS

OK plant breaks ground

A new processing plant in Comanche, OK, broke ground on March 4 on the west side of town on Highway 53. The Red Plains Grand Butchery plant will begin construction in spring 2022 and be operational in the fall, processing cattle and hogs for local producers. "My vision for Red Plains Grand Butchery is to be the leading meat processing enterprise in the Red Plains region of Oklahoma," owner Trey Clinkenbeard told the Duncan Banner. "Our mission is to create a resource which enriches our community, serves agriculture and improves people's lives. We will do this by focusing on being a valued and trusted corporate partner who aims to exceed the expectations of those we serve. In addition, Red Plains Grand Butchery will offer further processed, smoked and cured meats for private labels. Upon completion, the plant will employ eight to 12 people in what is described as "the newest data collection, tracking and processing technology to assure the highest level of customer service and trust."

Power of Meat report released

The North American Meat Institute (NAMI) and the Food Industry Association (FMI) released the 17th annual Power of Meat report on shopper habits, showing meat sales higher than pre-pandemic levels. The report shows sales were up 3.9 percent for all meat, despite fewer visits to the meat department. Fresh beef volume increased nearly 5 percent since 2019, and fresh lamb sales rose nearly 20 percent. "The Meat Institute and partners in the Protein PACT for the People, Animals and Climate of Tomorrow will continue to deliver information and innovation for the 98.5 percent of American households that purchase meat, continuously working to support healthy families, healthy communities, healthy animals and a healthy planet," said Julie Anna Potts, president and CEO of NAMI. More consumers shopped online than ever, with 61 percent of meat consumers shopping online and 46 percent shopping online regularly. The report found nearly 80 percent prepare meals at home, and 51 percent find inspiration for preparing meals online.

Sonoma County plant expansion

A Sonoma County, CA, meat processor is expanding operations to become a net-zero emissions meat processing facility. Sonoma County Meat Company purchased a 30,000 square foot industrial building to grow their business of preparing meats to sell at their store, to wholesale customers and to online orders and subscription boxes. "We see the potential at this facility is allowing us to maximize our efficiencies and have more sustainable processing capacity," Jenine Rinn, Sonoma County Meat Company founder, said. "It allows us to go further in decentralizing the meat industry and offering our services to local ranchers." Solar panels will be installed, and there will be a move toward electric truck refrigeration units to achieve the net-zero goal.

Beef jerky recalled

USDA's Food Safety and Inspection Service announced 1,634 pounds of beef jerky were recalled due to Listeria monocytogenes. Boyd Specialties LLC, a Colton, CA, establishment, manufactured multiple jerky products under the establishment number "EST. 40269" inside the USDA mark of inspection. These items were shipped to retail locations in Alabama, California, Connecticut, Michigan, New Jersey, North Carolina, Pennsylvania and Texas. There have been no confirmed reports of adverse reactions due to the consumption of these products. The jerky products subject to recall can be found at www.fsis.usda.gov/recalls. Consumers with food safety questions can call the toll-free USDA Meat and Poultry Hotline at 888-674-6854 or live chat via the Ask USDA site from 10 a.m. to 6 p.m. EST Monday through Friday.

Methane-reducing additive approved

European Union (EU) countries have approved a feed additive that combats methane emissions from livestock. The additive, Bovaer, was developed by the Dutch company DSM and approved by the Standing Committee on Plant, Animals, Food and Feed, which brings together representatives of EU's 27 member states and is chaired by a European Commission representative. According to DSM, the additive reduces enteric methane emissions by approximately 30 percent for dairy cows and as much as 90 percent for beef cows. A scientific assessment by the EU's food safety agency showed Bovaer reduced emissions in dairy cows and is not a concern for human safety and the environment. "Cutting farming-related methane emissions is key in our fight against climate change, and today's approval is a very telling example of what we can achieve through new agricultural innovations," said Commissioner for Health and Food Safety Stella Kyriakides.

THE BULL PEN

BUYING SELLING TRADING OFFERING — PRODUCTS SERVICES EQUIPMENT ANIMALS

EVANS Beefmasters Enterprise, UT
ANNUAL BULL DELIVERY DAY, APRIL 16TH
Raising Beefmaster Cattle since 1953
50 Yearlings & Long Yearling Bulls for Sale
EvansBeefmasters.com
Mark Evans 435-231-2461
Don Evans 775-722-8500

DeGrand Angus Baker, MT
Raising Registered Angus Since 1974
"Concentrating on the Basics"
Annual Bull Sale
April 15, 2022
Baker, Montana
Bulls will be on a ration to gain two pounds a day
Bulls will not be fat with a target of having 1/10 of an inch of Back Fat
Bulls are developed in large pastures to ensure soundness
Degrand Family · 406-775-8861 · P.O. Box 937 · Baker, MT 59313
Cows and heifer calves for sale this fall · www.degrandangus.com

Any Animal - Any Load - Every Time!
The accurate, dependable way to increase your profits while reducing your weighing time.
SSI manufactures a complete line of Side Rail and Flat Top model truck scales and livestock scales. All models are NTEP approved and can be made portable.
We also design and build custom units to meet specific needs!
www.soonerscale.com • 1-800-759-3444
2428 S.W. 14th · P.O. Box 82386 · Oklahoma City, OK 73148

GET THE RESULTS YOU WANT... advertise in the Bull Pen
It's not just for bulls!
Get a 3.2" x 2" black and white boxed ad for
3 weeks $95 per insertion
6 weeks $85 per insertion
12 weeks per insertion
Call Tom White · 800-850-2769
Western Livestock Journal

Hinman Angus
We do one thing . . . Angus!
Selling 175 maternal based, high volume Angus bulls with a unique balance of maternal, calving ease, growth and carcass traits.

HA Value Added 7578
Reference Sire
HA Value Added has made his mark on the Angus breed as one of the top performance sires. His progeny feed extremely well.

90 Bulls Suitable For Heifers

HA Power Up J450 20172224
HA Power Up continues the powerful Value Added lineage. Backed by a herd sire making female. Strong EPD profile.

CED	BW	WW	YW	Milk	Marb	RE	Fat	$M	$W	$F	$G	$B	$C
+9	+0.9	+75	+131	+24	+.84	+.64	+.044	+54	+75	+109	+57	+166	+269

Sitz Resilient 10208
Reference Sire
Sitz Resilient is a former Sitz Angus sale topper, sired by the ever popular Sitz Stellar.

HA Resilient J482 20177272
HA Resilient has all the pieces to be a breed changing herd sire. Calving ease, coupled with powerful performance. Will be a total outcross for many of today's popular genetics.

CED	BW	WW	YW	Milk	Marb	RE	Fat	$M	$W	$F	$G	$B	$C
+8	+0.0	+93	+161	+17	+.56	+.78	-.002	+60	+87	+95	+50	+145	+248

Several Large Sire Groups

35th Annual Bull Sale
Tuesday April 5, 2022
1:00 pm MDT
At the Ranch 10 miles east of Malta, MT

RON FRYE MARKETING - call or text - 406.600.7514 www.RonFryeMarketing.com
SUPERIOR Productions
Contact us for your Sale Book!
Billy & Heidi Lulloff Billy's cell 406-654-4669
PO Box 220 Malta, MT 59538
Dave & Yvonne Hinman 406-654-1809
Dave's cell 406-654-4656
HinmanAngus@hotmail.com
Bulls that will keep you in the Cow Business!

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: 3/10/2022		Week Ago	Year Ago
Choice Fed Steers	138.12	▼	140.48	113.61
CME Feeder Index	153.06	▼	157.78	133.85
Boxed Beef Average	253.94	▼	254.35	226.67
Average Dressed Steers	220.14	▼	224.92	179.29
Live Slaughter Weight*	1,400	▼	1,402	1,379
Weekly Slaughter**	658,000	▲	647,000	647,000
Weekly Beef Production***	553.1	▲	544.7	551.4
Hide/Offal Value	13.77	▼	14.07	9.91
Corn Price	7.58	▲	7.51	5.55

*Average weight for previous week. **Total slaughter for previous week. ***Estimated year-to-date figure in million pounds for previous week.

89BEEF 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
March 7	7,666	262.65	258	293.73	1,493	263.75	2,486	259.19	737	254.85	2,693	240.74
February 25	7,065	267.94	271	302.63	1,417	268.60	2,182	265.04	785	261.07	2,410	242.99
February 18	7,457	276.13	264	313.87	1,188	276.59	2,044	270.90	624	266.65	3,338	253.36
February 11	6,948	279.81	245	325.01	1,448	280.53	2,329	274.73	691	271.52	2,236	254.68

Cutouts — FED BOXED BEEF

DATE	CHOICE	SELECT	COW BEEF CUTOUT	50% LEAN	90% LEAN
March 10	253.94	241.37	227.42	107.79	282.99
March 9	252.70	244.79	227.92	106.58	282.50
March 8	252.44	244.94	231.37	106.43	288.71
March 7	254.71	250.22	229.12	106.41	282.12
March 4	254.33	248.41	228.32	103.16	282.00

CATTLE FUTURES: CME Live Cattle

	3/4	3/7	3/8	3/9	3/10	High*	Low*
Apr.	13578	13790	13905	13758	13590	14783	10920
Jun	13253	13392	13545	13395	13245	14385	12525
Aug.	13415	13530	13648	13563	13465	14355	13055
Oct.	14163	14295	14373	14295	14245	14662	14003

CATTLE FUTURES: CME Feeder Cattle

	3/4	3/7	3/8	3/9	3/10	High*	Low*
Mar.	15313	15403	15403	15405	15165	17025	15385
Apr.	15725	16033	16033	16015	15625	17275	15425
May.	16235	16630	16630	16593	16180	17755	16625
Aug.	17610	17940	17940	17913	17568	18665	17450

*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	26,633	1,476	138.12
Live FOB Heifer	11,311	1,326	138.06
Dressed Del Steer	12,440	963	220.14
Dressed Del Heifer	5,642	844	219.99
SAME PERIOD LAST WEEK			
Live FOB Steer	14,271	1,476	140.48
Live FOB Heifer	8,874	1,370	140.83
Dressed Del Steer	8,386	962	224.92
Dressed Del Heifer	4,242	857	224.95
SAME PERIOD LAST YEAR			
Live FOB Steer	25,781	1,491	113.61
Live FOB Heifer	15,932	1,358	113.45
Dressed Del Steer	9,147	957	179.29
Dressed Del Heifer	4,905	870	179.63

NATIONAL WEEKLY FED BEEF SLAUGHTER VOLUME

	Domestic	Imported
Forward Contract	40,088	6,999
Formula	266,987	196
Negotiated Cash	92,022	230
Negotiated Grid	35,490	0
Packer Owned	9,394	0
Total	**443,981**	**7,425**

SLAUGHTER FORWARD CONTRACTS		FORWARD BEEF SALES	
Delivery Month		Neg. Sales 0-21 days	1,860
Mar. '22	218,759	Neg. Sales 21+ days	1,864
Apr. '22	234,144	Formula sales	3,387
May '22	149,131	Forward contract sales	555
Jun. '22	139,367	Domestic sales	6,183
Jul. '22	106,862	NAFTA Exports	148

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	126.66	-0.33
Slaughter Heifers, mostly Choice & Select 1-3, 1200-1400 lbs	125.90	+0.84
Ontario Auctions		
Slaughter Steers, mostly Choice & Select 1-3, 1300-1500 lbs	135.17	-1.1
Slaughter Heifers, mostly Choice & Select 1-3, 1200-1400 lbs	N/A	N/A
Slaughter Cows, Cutter and Utility 1-3, 1100-1400 lbs	69.58	-1.33

*Price comparison from one week ago.

Average feeder cattle prices (CND) for week ending Friday, February 25, 2022

Steers:	Alberta	Saskatchewan	Ontario
501-600 lbs	183.43	182.69	171.57
601-700 lbs	170.24	168.50	165.61
701-800 lbs	156.80	156.42	159.89
801-900 lbs	147.86	148.19	151.76
Heifers:			
401-500 lbs	158.91	162.09	147.45
501-600 lbs	154.66	154.39	145.89
601-700 lbs	145.49	146.48	142.18
701-800 lbs	138.60	137.24	141.79

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
	3/5/2022	2/26/22		
Feeders	15,821	18,652	161,592	205,369

USDA WEEKLY IMPORTED FEEDER CATTLE

Friday 3/4/22
Mexico to TX. & NM. Weekly Feeder Cattle Import Summary
Receipts EST: 11,000 Week Ago Act: 14,160 Year Ago Act: 22,418

Compared to last week, steer calves and yearlings sold 8.00-10.00 lower, instances 13.00-14.00 lower. Heifers 7.00 lower. Trade and demand moderate. The bulk of the supply consisted of steers and spayed heifers weighing 300-700 lbs.

Feeder steers: Medium and large 1&2, 300-400 lbs 180.00-190.00; 400-500 lbs 165.00-175.00; 500-600 lbs 150.00-160.00; 600-700 lbs 140.00-150.00. Medium and large 2&3, 300-400 lbs 165.00-175.00; 400-500 lbs 150.00-160.00; 500-600 lbs 135.00-145.00.

Feeder heifers: Medium and large 1&2, 300-400 lbs 157.00-167.00; 400-500 lbs 147.00-157.00; 500-600 lbs 137.00-147.00; 600-700 lbs 127.00-137.00.

(All sales fob port of entry.)

Selected Auction — Week Ending March 10, 2022

Feeder prices for steers & heifers reflect medium and large 1 cattle, unless otherwise noted; * Indicates medium and large 1-2

STEERS / HEIFERS

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	
March 4 Blackfoot, ID	N/A			170-196 160-165	160-195 147-180	150-185 140-158	140-162 135-142	130-149 127-135	68-88 81-107.50		NORTHWEST
March 3 Burley, ID	648			195-211 186.50	171-190 166.50-180	153.50-162 148-150	149-152 138.50-139.75	138 108-134.50	79.50-88 95-111	1,250	
No report available Emmett, ID											
March 5 Eugene, OR	663		148-171* 125-138*	140-168.50* 135-149*	138-149.50* 130-147*	136-148* 115-135*	125-134* 118-131*	110-117*	75-83.50 86-93	600-1,430 700-1,005	
March 7 Madras, OR	474		180-200 160-180	175-195 155-180	165-185 158-170	156-166 130-145			67-88 87-105		
March 2 Vale, OR	532			169-184 150-155	160-187 139-155	141-164 134-146	132-141		75-85 84-96	750-1,250	
March 9 Davenport, WA	265		122-196 140-275	110-193 142-157	120-189 83-168.50	91-167 101-146.50	105-160 113	100	62-88 61-74		
March 3 Toppenish, WA	1,310					150*			66-87 90-126.50	885-910	
No report available Orland, CA											FARWEST
March 7 Escalon, CA			130-171 125-156		125-160 120-153		120-146 100-135	100-125 95-115	60-73 80	800-1,300 700-1,300	
March 7 Famoso, CA	413		150-180 120-130	150-180 120-150	150-165 110-145	140-150 100-120	125-135 95-115	110-120	65-93 80-100		
March 9 Galt, CA	2,354				150-173 140-160	145-167 140-159	140-164 125-147	140-162	50-92.50 90-130		
March 8 Turlock, CA	1,345		150-168 145-160	147-166.50 140-152	154-173 138-150	140-152 130-140	115-125	112-122	73-93.75 80-125		
March 8 Salina, UT	1,245		173-209 155-200	167.50-189 145-175	150-192 138-170	145-166 135-155	135.25-156 132-142	128-147.50 96.75-135	64.50-78.75 84.15-103.50		
March 7 Iowa	14,908	210	197-235 179-196	192.50-226 161-209	160-230 145-197	150-196.75 139-168.50	140-176.50 130-161	122-168 120-149.50	63-101 44-114		NORTH CENTRAL
March 8 Miles City, MT	783		215 185-187.50	210-217 199	165-177	180-183	155 143.50		73-86.50 75-98	1,000-1,600	
February 23 Bassett, NE	3,250		200.50-202	222.50-232 185-206	211.50-227.50 171-196	180.75-203 157-182.25	169.50-187.25 150.50-164	151-168.50			
March 5 Ericson, NE	3,963		225-237 199-218	218-237 182.75-197	194-220 167-193	173.50-196 155.50-169	158 147.50-161.50	146.50-156 142.25-151.50			
March 8 Imperial, NE	2,225		236-254 187	204-214 178-191	190-198 159-175	192-194 144-150	152-158 135.50-142	142-152 136.50			
March 2 Kearney, NE	2,710			205-208 170-187.50	179.50-193 152-176.50	158-192 143-171	150.50-170 142.50-159	141.50-166 136.75-144.75			
March 4 Lexington, NE	3,490		190-203	215-220 175-188	166-197.50 161-182	170-206 156-172	155.75-174.75 141.50-159	138-149.50 153			
March 3 Ogallala, NE	6,250		224-231 191.50-206	217.50-226 180-200.50	204.50-226 173-190.50	186-209.50 145.50-175.75	160-181 140-157	139-166 135.50-143.75			
March 3 Valentine, NE	1,050									860-2,000	
March 4 Herreid, SD	3,174			167.50-181	183.75-197 162-173	160-191 147-170	147.75-171 135.75-168	143.25-155.50 132-142			
March 2 Torrington, WY	4,375		244 209-210	208-233 185-202	205-219 173-190	175-201 154-178	159-170.50 148-153	141-156 142-144			
March 3 Willcox, AZ	1157	207.75-213 158-184	171-208 148.25-184	176-199.50 149-163	170-188.50 143-158.50	159.50-175.50 135-143.50			62-109.50 94-111	950-1,310	SOUTH CENTRAL
March 7 Colorado	8,015		220-229 190	210-228 170-198.50	193-223 159-189	155-199 147-174.50	145.50-179 123-164.50	136-153 103-139	62.50-103 75-124	1,200	
March 2 La Junta, CO	2,488		220-227 185-190	208-228 110-198.50	186-212 153-180	160-197 148-162.50	150-173 138.50-153	140.50-147 132-146.50	74-90 96-113		
No report available Loma, CO											
March 9 Dodge City, KS	4,158	202	210-218 163-171	192-215 156-180	170-207 150-180.50	163-185.50 143-159	149-158.50 136.25-144.50	137-154 128-137.50	79-93 101-112.50	910-1,150	
March 10 Pratt, KS	5,500			176-210	174-177 146-158	148-153 133.50-152.50	149 132-144.25	131 125.75-135.75			
March 3 Salina, KS	4,973		213-216 172-194	210-228 170-184	199-223 158-177	169-190 150-161	153-166.75 137-150	139.75-155.25 126-138.50			
March 9 Clovis, NM	1,713	205-218 185	201-216 182-191	177-210 160.50-185	159-178 146.50-157	151-158 139-145	145-153 130-140	120-146.25			
March 8 El Reno, OK	3,000	200	210-245 180-210	185-220 162.50-200	177-210 155.50-170	150-182 144-163	154 141				
March 9 McAlester, OK	1,330		190-209 158-175	178-197 142-171	175-193 136-151	144-167 128-146	133-147 112-134	118-129 111	69-91 92-110	785-1,250 675-1,225	
March 8 Oklahoma City, OK	10,627	237	194-231 170-188	193-230 153-188	184-210 153.50-174	164-188 140-168	145-176 133.50-141	132-150.75 130-142			
March 4 Cuero, TX	1,693	151-236 120-180	175-240 143-234	156-206 135-176	143-178 133-166	142-159 123-149	131-144 102-134		45-60	1,275-1,600	
March 4 Dalhart, TX	2,940		227-229 177-189	209-217 165-175	190-211 157-169	159-187 147-155	150-155.50 140.50-149	149.85-159 129.50	70-96 108-121		
March 7 San Angelo, TX	1,226		173-238 145-177	176-186 143-162	152-178 125-152	145.50-176 130-148	134-147 114-125		72-104.50 84-110	925-1,500	
March 4 Tulia, TX	2,092		210 186-208	183-210 160-190	175-179 141-161	152-168.50 135.50-153.75	145-154 141-144.50	137-147.50 130-135	75-84.75 94.50-100	1,100	
March 4 Alabama	7,908	203-218 178-179	179-209 143-180	172-197 130-172	157-187 130-168	148-166 118-155	135-154 119-143	106-150 114	58-95 74-121	600-1,600 300-1,600	EAST
March 7 Lexington, KY	776	192.50* 152-165*	160-195* 140-168*	166-185* 140-164*	156.50-175* 130-153.50*	145-166* 124-141*	137-148* 124*	120-133* 96-114*	67-95 77-126	975-1,500 550-1,375	
March 7 Joplin, MO	9,192	205 172.50	200-217 165-181	195-216 160-180.50	191-215 157-182.50	164-185 148-158	154-165 151	139-155 138			
March 7 Tennessee	6,311	185-200* 142.50-175*	181-224* 142-180*	155-215* 138-174*	145-200.50* 129-166*	135-178* 113-150*	130-158* 108-136*	121-146.50* 101-128*	54-93 71-122	900-1,350 620-1,175	
March 7 Virginia	5,369	128	150-188 130-160	130-197.50 128-153	125-192 128.75-151.50	110-171 111-150	121-152.50 104-130	89-142 91-120	132-161.50		
CANADA											
March 9 Lethbridge, Alberta	2,263		235-260	234-250 184-209	224-249 186-194	210-232 177-194	194-216.50 172-189	185-201 168-174	80-97 117-135		

Find out how YOUR AUCTION MARKET can become a PREFERRED *WLJ* partner!

At no cost to you, we'll send you weekly copies of the *Western Livestock Journal* that you can share with your customers...to keep them informed of what's happening in the beef industry. There is no obligation or downside!
Contact Moe at 800-850-2769 for more information!

Increased uncertainty clouds cattle market optimism

The war in Ukraine has injected much uncertainty into global markets. Markets do not like uncertainty, and much of the market reaction thus far is about uncertainty rather than reality. The majority of impacts thus far on cattle markets are indirect rather than direct beef market impacts.

Cattle markets are being impacted by the effect of the conflict on crop markets. Both Ukraine and Russia are major grain producing and exporting countries. With the reality of current disruptions of grain movement from the Black Sea region and the uncertainty of what could happen, crop prices have soared, pushing already high feed prices much higher.

Just a few more weeks will determine whether crop planting in the Ukraine will be possible. All crop markets are higher, but the uncertainty is focused on the near term, pushing old crop futures higher relative to new crop contracts in the fall.

The most broad-based impacts relate to energy markets. Russia is a major oil producing and exporting country, and potential disruptions in global energy markets are contributing to sharply higher energy prices. Russia is also a major producer and exporter of fertilizer. These will add to inflationary pressures for production costs and are a threat to beef demand as higher gas prices directly impact consumers.

At this point, the direct impacts of the conflict on global beef markets are relatively small. Russia is the ninth ranked beef importing country but only accounts for roughly 3 percent of global beef imports. However, global beef market flows may be impacted more depending on how various countries are affected by the conflict.

All of these external factors combine with the looming threat of widespread U.S. drought over the cattle industry. In just a few weeks, the drought will begin to impact forage production, and producers will face rapidly worsening production conditions and additional management and marketing challenges. The supply fundamentals of the industry will continue to be supportive, with cattle numbers decreasing and beef production declining this year.

Beef demand has been strong up to this point, but clearly there are more concerns about demand and input prices going forward. A war situation like this has no analogue in recent history, and there is no way to anticipate when or even if the situation will stabilize in the foreseeable future. Producers have lots to watch in a very dynamic and volatile situation. There is little choice but to stay tuned and try to remain as flexible as possible. — **Derrell S. Peel, Oklahoma State University Extension livestock marketing specialist**

Corn holds steady while feeders sink lower

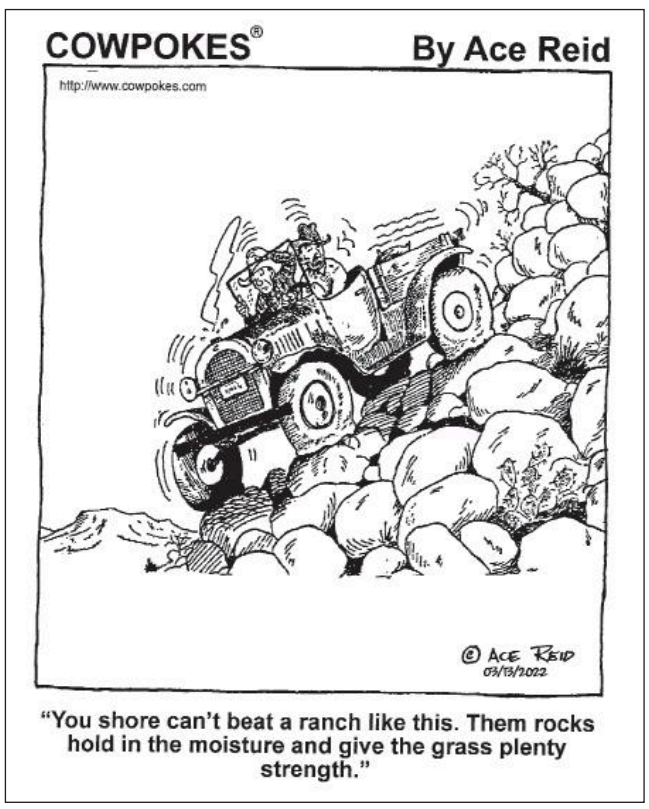
MARKETS
(from page 1)

Slaughter through Thursday totaled about 499,000 head—several thousand head more than a week earlier. The first week of March's slaughter is projected at 658,000 head. Actual slaughter through the last week of February totaled 650,644 head.

"Even with a plant dark tomorrow and Saturday for cooler cleaning, this week's throughput is solid," Fish said on Thursday.

Boxed beef prices are getting closer to bottoming, with the Choice cutout down just 41 cents to $243.94 and the Select cutout down 42 cents to $247.37. The Choice/Select spread was $6.57.

"Beef net export sales of 27,500 metric tons (mt) for 2022—a marketing year high—were up 16 percent from the previous week and 36 percent from the prior four-week average," said ShayLe Stewart, DTN livestock analyst, in her Thursday midday comments. "The three largest buyers were China (10,400 mt), Japan (6,400 mt) and South Korea (3,700 mt)."



"You shore can't beat a ranch like this. Them rocks hold in the moisture and give the grass plenty strength."

Feeder cattle

"The cat and mouse game between grain prices and the feeder cattle complex is intense as the feeder cattle contracts are receiving no support from the live cattle sector," Stewart said. "Not only is the feeder cattle market seeing its futures complex driven lower by input cost concerns, but throughout the countryside, buyers are extremely leery of buying any feeders/calves as the market is too volatile to gamble with any risk."

Feeder cattle futures plummeted over the week. The March contract lost $4.70 to close at $151.65, and the April contract lost $4.27 to close at $156.25. The CME Feeder Cattle Index lost $4.72 to close at $153.06.

Corn futures bounced around over the week but ultimately closed higher. The March contract gained 6 cents to close at $7.57, and the May contract gained 8 cents to close at $7.55.

Colorado: Winter Livestock in La Junta sold 4,531 head on Tuesday. Compared to a week earlier, steers under 750 lbs. sold $8-10 higher, with instances of $15 higher; over 750 lbs. sold $3-5 higher. Heifers under 700 lbs. sold steady to $2 higher, except 500-600 lbs., which sold $5-8 higher. Heifers over 700 lbs. sold $2 lower.

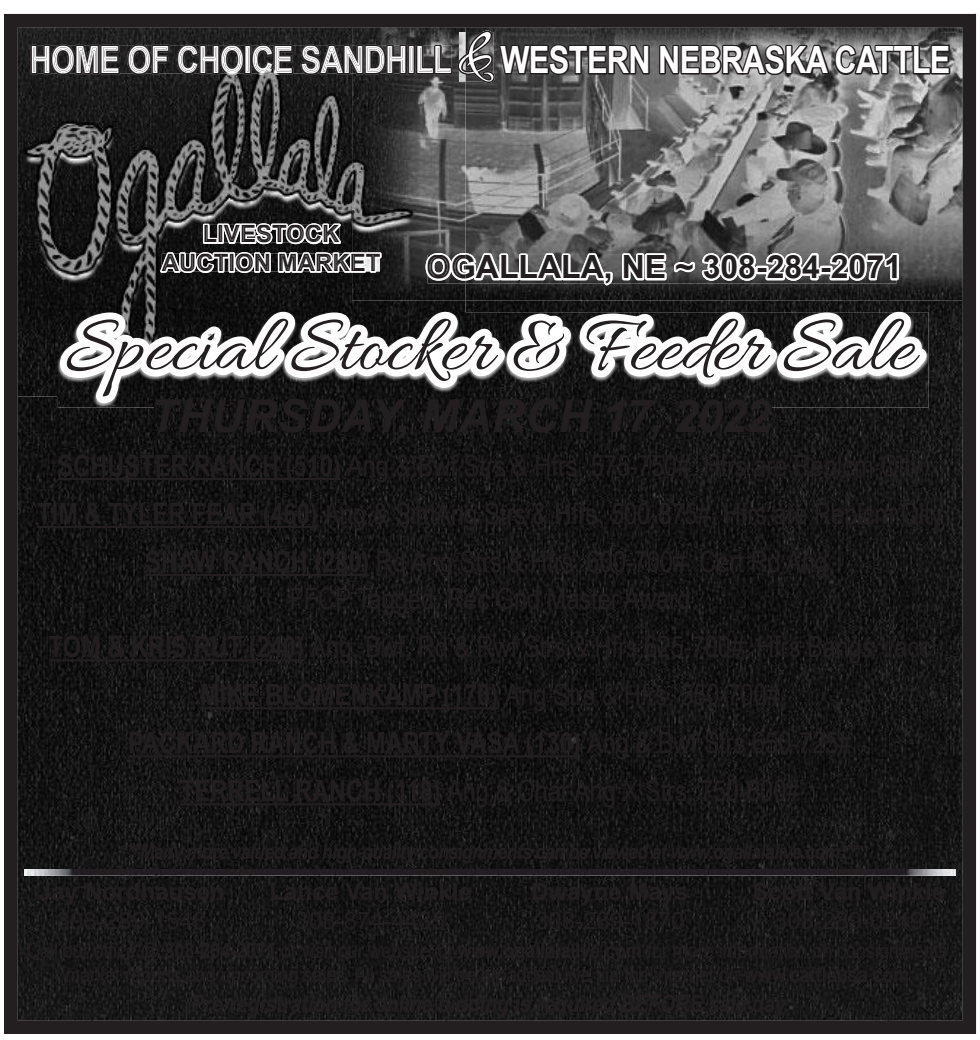
Kansas: Winter Livestock in Dodge City sold 3,785 head on Wednesday. Compared to the previous sale, feeder steers 700-975 lbs. sold steady to $2 lower, and steer calves 400-700 lbs. sold $10 lower. Feeder heifers 700-900 lbs. sold $2-3 lower, heifers 600-700 lbs. sold steady to $2 higher and heifer calves 400-600 lbs. sold $10-12 lower.

Missouri: Joplin Regional Stockyards in Carthage sold 10,000 head by midday trading Monday. Feeder steers and heifers under 550 lbs. traded $10-15 lower. Joplin reported there were not enough heavier cattle yet for a trend. Benchmark steers averaging 728 lbs. sold for $158.

New Mexico: Roswell Livestock Auction in Roswell sold 707 head on Monday. There were no recent sales to compare to. Benchmark steers averaging 775 lbs. sold between $136-145.50, averaging $142.34.

Oklahoma: Oklahoma National Stockyards in Oklahoma City sold 11,000 head by mid-session Monday. Feeder steers sold $4-6 lower. Feeder heifers traded $5-8 lower. Steer and heifer calves were lightly tested, but a lower undertone was noted. Benchmark steers averaging 767 lbs. sold between $145-155, averaging $150.65.

South Dakota: Sioux Falls Regional Cattle Auction in Worthing sold 3,358 head Monday. Compared to a week earlier, feeder steers 550 lbs. and below sold $11-14 lower, 600-800 lbs. sold $5-9 lower, 800-900 lbs. sold $3-4 lower and 900-950 lbs. sold $8-9 lower. Feeder heifers under 600 lbs. sold $7-11 lower, 600-750 lbs. sold steady to $3 lower and 750-950 lbs. sold $5-9 lower. Benchmark steers averaging 730 lbs. sold between $156.75-166.50, averaging $159.72. — **Anna Miller, *WLJ* managing editor**





CLASSIFIED CORR ern Livestock Journal

o call: 1-800-850-2769 o clic WLJ.NET o fax: 1-303-722-0155

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. MTZ, 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

1 ..... Employment Wanted
2 ..... Help Wanted
3 ..... Situations Wanted
4 ..... Distributors Wanted
5 ..... Appraisers
6 ..... Auctions
7 ..... Auctioneers
8 ..... Feedlots
9 ..... Lost Cattle
10 ..... Cattle for Sale
11 ..... Cattle Wanted
12 ..... A.I./Semen/Embryos
13 ..... Brands
14 ..... Dogs for Sale
15 ..... Horses/Mules
16 ..... Bison/Buffalo
17 ..... Sheep/Goats/Hogs
18 ..... Livestock Supplies
19 ..... Ranch/Livestock Services
20 ..... Real Estate Opportunities
20A ..... Pacific Real Estate For Sale
20B ..Intermountain Real Estate For Sale
20C ..... Mountain Real Estate For Sale
20D .... Southwest Real Estate For Sale
20E ..... Plains Real Estate For Sale
20F ..... Midwest Real Estate For Sale
20G .... Southeast Real Estate For Sale
20H .....Northeast Real Estate For Sale
20I ..... Foreign Real Estate For Sale
21 ..... Real Estate Wanted
22 ...Real Estate Rent/Lease/Trade
23 ..... Pasture Available
24 ..... Pasture Wanted
25 ..... Mineral Rights
26 ..... Hay/Feed/Seed
27 ..... Irrigation
28 ..... Ag/Industrial Supplies
29 ..... Fencing/Corrals
30 ..... Equipment For Sale
31 ..... Equipment Wanted
32 ..... Building Materials
33 ..... Trucks/Trailers
34 ..... Tractors/Implements
35 ..... Business Opportunity
36 ..... Loans
37 ..... Insurance
38 ..... Financial Assistance
39 ..... Tech/Books/Art/Etc.
40 ..... Miscellaneous
41 ..... Lost/Found
42 ..... Personal
43 ..... Schools
44 ..... Auctioneering Schools

CLASSIFIED CORRAL

1-800-850-2769 • Fax: 303-722-0155
Website: www.wlj.net • Email: 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

2for1 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

Employment Wanted 1

DOS VAQUEROS EMPLOYMENT SERVICES

NEED EMPLOYEES?
Looking for qualified employees for your ranch/feedlot? Our service has prequalified, skilled applicants from Mexico. **Contact: Jennifer Fischer 806-220-7892, Amparo Jiménez 52-442-128-1042, fischer@dosvaquerosemp.com.**

Help Wanted 2

NW COLORADO MOUNTAIN RANCH is seeking responsible, motivated, self-starter ranch manager. Experienced in most phases of a cattle ranch operation: fencing, irrigation, haying and equipment maintenance. Be your own boss. Send resume with contact information by email: Classified@wlj.net (Subject line: WLJ Box #914) or send resume to: Western Livestock Journal, ATTN: Box #914, 7355 E. Orchard Rd. #300, Greenwood Village, CO 80111.

Serving Ag Personnel for 63 Years
GET TOP DOLLAR! Hansen Agri-PLACEMENT
Asst. Feedyard Manager (CO) ...$120K±
Ranch Hay Manager (MT).....$65K±
Ranch Assistant (MT).....$55K±
Call Eric 308/382-7351
www.hansenagriplacement.com

Feedlots 8

Mission Livestock/ Greenwood Feedlot, Orland, CA
Specializing In:
- Weaning, Backgrounding & Growing Calves
- Heifer Development & Breeding
- Bull & Cow Maintenance

Experienced Progressive Mgmt. Team, Exceptional Facility & Competitive Rates.

Contact Douglas Freitas 510-996-8455

CLASSIFIED ADS WORK!

Cattle For Sale 10

REGISTERED ANGUS SEEDSTOCK: Noah's Angus Ranch, Angus cattle since 1955. Cambridge, ID 208-257-3686, c:208-550-0531, www.noahsangusranch.com.

REGISTERED TEXAS LONGHORNS FOR SALE
Featured in September 2020 American Beef Producer magazine. Gentle pairs, steers, heifers, solid and colorful bulls. Foraging, hardy, low-maintenance cattle, traffic-stopping colors. Cross breed with your herd for easy calving, robust calves resistant to disease. Fascinating, fun to show, simple handling. Westhaven Ranch Tel: 209-274-9917, email: swestmoore@gmail.com, website: www.westhavenlonghorns.com.



Cattle For Sale 10



ANGUS BULLS FOR SALE
POTTER EV RANCH
Emmett, Idaho
(208) 365-3621
cattleandsheep.com

4 IMPRESSIVE ANGUS bulls for sale. Excellent selection of high-quality calving ease and growth genetics sired by Diablo Deluxe, Command and Enhance. HD50K DNA profiled. Delivery available. Westwind Angus, Oroville, CA, 530-736-0727.

Replacement Cows

- 80 3-5 yr. old Angus and BWF early spring pairs.
- 120 3-5 yr. old Angus cows. Start calving in March.
- 800 Fancy 3-4 yr. old Angus cows, bred to reg. Angus bulls. Calve September 10 for 60 days.
- 300 Fancy 2nd calf Angus cows. Bred to reg. Angus bulls. Calve September for 60 days.
- 200 Fancy Red Angus 2nd and 3rd calf cows. Bred to Char. bulls. Start calving September.
- 500 3-5 yr. old Angus and BWF cows. Bred to reg. Angus bulls. Start calving late August.
- Northern genetic bulls. Angus, Red Angus, Hereford.

JCA Cattle Co.
325-280-7128

PRATT FARMS GRAY BRAHMANS

GENTLE AMERICAN BEEF TYPE GRAY BRAHMANS
Loren Pratt
520/568-2811
44996 W. Papago Rd.
Maricopa, AZ 85139

Livestock Supplies 18

185-472-3388 SILENCER TURRET GATE molymfg.com

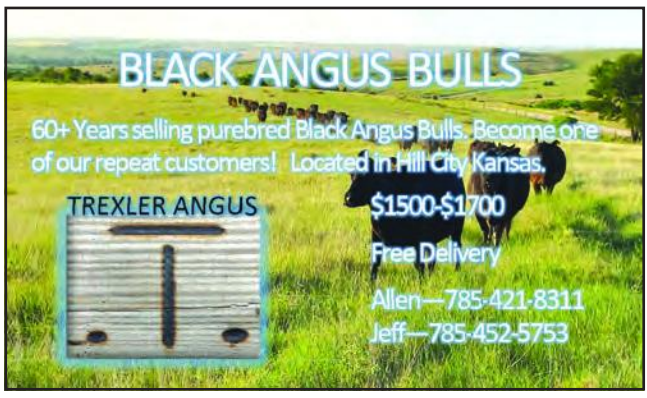
www.wlj.net

Real Estate Pacific 20A

KNIPE LAND COMPANY

Hot Springs Ranch - Idaho
Little Salmon River traverses this 115± acre ranch which includes 155° natural geothermal water, irrigated pasture, 2 homes, shops, and barns. Fish for steelhead, salmon and trout. **$2,900,000**
(208) 345-3163 · knipeland.com

Cattle For Sale 10



Real Estate Southwest 20D

Scott Land Company, LLC
RANCH & FARM REAL ESTATE

ALAMOSA CREEK RANCH – Roosevelt Co., NM – 14,982± ac. (10,982± ac. deeded, 4,000± ac. state lease). Good cow ranch in Eastern NM, excellent access via US 60 frontage between Clovis and Fort Sumner. Alamosa Creek crosses through the heart of the gently rolling grassland.

SARGENT CANYON RANCH (Chaves/Otero Co.) – 18,460± ac. - 200± deeded, 2,580± state, 11,200± BLM, 4,480± forest. Permitted for 380 AUs year-round, well watered, good headquarters, very nice updated home, excellent pens & outbuildings. Scenic ranch!

LET'S LOOK at these two choice 80 acre tracts of dryland located in close proximity to one another in Wilbarger County near Vernon, TX.

Please view our website for details on these properties, choice TX, NM and CO ranches (large & small), irr./dryland/CRP & commercial properties.

www.scottlandcompany.com • 800-933-9698 day/eve
Ben G. Scott – Broker • Krystal M. Nelson – NM QB

Accredited Land Brokers Team WCR eXp REALTY

Bob & Sandy Bahe
Accredited Land Consultants
Branch Office: 918-426-6006
Main Office: 888-560-3964 ext.137



Broken Bow Development
178 acres m/l, Broken Bow, OK HUB Zone and Opportunity Zone, Paved road frontage, Utilities, Beautiful rolling forest and meadows. $5,785,000



Lehigh Lake 30 acres m/l, Lehigh, OK 9 Acre clear water lake, 4 ponds, Public road access, Lake goes up to 95' in depth, Over 11 acres of water, Income potential from water and gravel. $497,650

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

Pasture Wanted 24

WINTER PASTURE wanted in California for yearlings. Large quantities. 541-823-2933

YEARLING PASTURE NEEDED. Looking for summer feed for anywhere from 300-1,350 head of spayed heifers or 300-4,000 head of steers. Please contact Duane Martin Jr. of Duane Martin Livestock at 209-481-5355.

LOOKING FOR SUMMER pasture to run yearling cattle. California. Contact Pete Craig, petec@pacificlivestock.com.

PASTURE WANTED for 2,000 yearlings and 500 pairs. Can split into smaller bunches. 701-523-1235

CLASSIFIED ADS ARE ONLINE AT WWW.WLJ.NET

Irrigation 27



HDPE PIPE FOR RANCH WATER SYSTEMS
Fair prices, good service, rancher owned. Quantities up to truckloads. Delivery available throughout the West.
775-657-1815

Follow WLJ

Equipment For Sale 30

SELL/BUY NEW HOLLAND BALE WAGONS: H9870, BW38, 1089, 1069, 1037, 1033, self-propelled and other pull-type models/parts/tires/manuals. Finance, trade, deliver. 208-880-2889. www.balewagon.com

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 BREED

Mar. 16 – Western Breeders, Bull Sale, Eltopia, WA
Apr. 7-8 – Midland Bull Test, Bull Sale, Columbus, MT
Apr. 19 – Treasure Bull Test, Bull Sale, Great Falls, MT
Nov. 5 – Cattlemen's Livestock Market, Bull Sale, Galt, CA

ANGUS

Mar. 14 – Parry Angus, Bull Sale, Sterling, CO
Mar. 14 – Pine Coulee Angus, Bull Sale, Hardin, MT
Mar. 14 – Spring Cove Ranch, Production Sale, Bliss, ID
Mar. 15 – Blevins Angus, Production Sale, Charlo, MT
Mar. 15 – Quirk Land & Cattle Co., Production Sale, Hastings, NE
Mar. 16 – Lufkin Angus, Bull Sale, Leadore, ID
Mar. 16 – Stevenson Angus, Bull Sale, Hobson, MT
Mar. 16 – Wagonhammer Ranches, Bull Sale, Albion, NE
Mar. 17 – Carter Cattle Co., Bull Sale, Blackfoot, ID
Mar. 17 – Vallad/Oft, Bull Sale, Vale, OR
Mar. 18 – Leadore Angus, Bull Sale, Leadore, ID
Mar. 18 – Montana Performance Bull Co-op, Bull Sale, Columbus, MT
Mar. 18 – T/D Angus, Bull Sale, North Platte, NE
Mar. 19 – Gray Angus, Bull Sale, Harrison, NE
Mar. 19 – Nelson Angus Ranch, Bull Sale, Salmon, ID
Mar. 19 – Ward Ranches, Bull Sale, Minden, NV
Mar. 21 – Whistling Winds Angus, Production Sale, Hingham, MT
Mar. 21 – Harrer's Lost Lake (Angus), Production Sale, Great Falls, MT
Mar. 21 – JR Ranch/Sackmann Cattle, Bull Sale, Othello, WA
Mar. 23 – Nebraska Bull Test, Bull Sale, Broken Bow, NE
Mar. 23 – Peterson Grain and Cattle, Bull Sale, Havre, MT
Mar. 24 – Gartner-Denowh, Bull Sale, Sidney, MT
Mar. 24 – Vermilion Ranch, Commercial Female Sale, Billings, MT
Mar. 25 – Vertical Edge Genetics, Production Sale, Bancroft, ID
Mar. 25 – Schurrtop Angus & Charolais, Bull Sale, McCook, NE
Mar. 25 – Vermilion Ranch, Bull Sale, Billings, MT
Mar. 26 – Basin Bull Fest, Bull Sale, Klamath Falls, OR
Mar. 26 – Diamond Peak Cattle, Bull Sale, Loma, CO
Mar. 26 – Connealy Angus, Bull Sale, Whitman, NE
Mar. 29 – Silver Bit Ranch, Bull Sale, May, ID
Mar. 29 – Thomas Angus, Bull Sale, Shoshone, ID
Apr. 2 – Brooks Chalky Butte, Bull Sale, Bowman, ND
Apr. 5 – Daigger-Orr Angus & Red Angus, Bull Sale, North Platte, NE
Apr. 5 – Hinman Angus, Bull Sale, Malta, MT
Apr. 7 – Arntzen Angus, Bull Sale, Hilger, MT
Apr. 8 – Midland Bull Test, Angus Bull Sale, Columbus, MT
Apr. 9 – Bar T Bar Ranches, Bull Sale, Winslow, AZ
Apr. 9 – Fink Beef Genetics, Angus and Charolais Bull Sale, Randolph, KS
Apr. 9 – Redd Ranches, Bull Sale, Paradox, CO
Apr. 11 – Cook Angus, Bull Sale, Billings, MT
Apr. 11 – Herbster Angus Farms, Bull Sale, Marysville, KS
Apr. 11 – Jorgensen Land & Cattle, Production Sale, Ideal, SD
Apr. 12 – Hilltop Angus, Production Sale, Denton, MT
Apr. 14 – Carr Angus, Production Sale, Hobson, MT
Apr. 14 – Jocko Valley Cattle Co., Bull Sale, Missoula, MT
Apr. 14 – McClun's Lazy JM Ranch, Bull Sale, Torrington, WY
Apr. 15 – DeGrand Angus, Bull Sale, Baker, MT
Apr. 20 – Milk River Genetics, Bull Sale, Chinook, MT
Apr. 23 – Herring/Hi Country, Bull and Quarter Horse Sale, Saratoga, WY
Apr. 26 – Currant Creek, Bull Sale, Miles City, MT
May 14 – Diamond Peak Cattle, Bull & Female Sale, Loma, CO

BALANCER

Apr. 9 – Bar T Bar Ranches, Bull Sale, Winslow, AZ
Apr. 9 – Redd Ranches, Bull Sale, Paradox, CO

BEEFMASTER

Apr. 16 – Evans Beefmasters, Bull Sale, Enterprise, UT

BRANGUS

Mar. 22 – Geneplus-Suhn Cattle Co., Bull Sale, Eureka, KS

CHAROLAIS

Mar. 15 – Romans Ranches, Production Sale, Westfall, OR
Mar. 16 – Wagonhammer Ranches, Bull Sale, Albion, NE
Mar. 25 – Schurrtop Angus & Charolais, Bull Sale, McCook, NE
Mar. 26 – Valley View Charolais, Bull Sale, Polson, MT
Mar. 28 – Axtell Cattle Company, Production Sale, Sterling, CO
Apr. 2 – DeBruycker Charolais, Bull Sale, Great Falls, MT
Apr. 9 – Fink Beef Genetics, Angus and Charolais Bull Sale, Randolph, KS
Apr. 9 – Hebbert Charolais, Bull Sale, Hyannis, NE
Apr. 16 – Cobb Charolais, Bull Sale, Augusta, MT

FLECKANGUS

Mar. 25 – Vertical Edge Genetics, Production Sale, Bancroft, ID

FLECKVIEH

Mar. 25 – Vertical Edge Genetics, Production Sale, Bancroft, ID

GELBVIEH

Apr. 9 – Bar T Bar Ranches, Bull Sale, Winslow, AZ
Apr. 9 – Redd Ranches, Bull Sale, Paradox, CO

HEREFORD

Mar. 14 – Holden Herefords, Production Sale, Valier, MT
Mar. 14 – Spring Cove Ranch, Production Sale, Bliss, ID
Mar. 15 – Cooper Herefords, Production Sale, Willow Creek, MT
Mar. 17 – Vallad/Oft, Bull Sale, Vale, OR
Mar. 23 – Nebraska Bull Test, Bull Sale, Broken Bow, NE
Mar. 23 – NJW Herefords, Bull & Female Sale, Sheridan, WY
Mar. 29 – Silver Bit Angus, Bull Sale, May, ID
Apr. 14 – McClun's Lazy JM Ranch, Bull Sale, Torrington, WY
Apr. 16 – Stuber Ranch, Production Sale, Bowman, ND
Sep. 5 – Genoa Livestock, Bull & Female Sale, Minden, NV

OPTIMIZER

Mar. 19 – Ward Ranches, Bull Sale, Minden, NV

RED ANGUS

Mar. 14 – Feddes and C-T Red Angus, Production Sale, Manhattan, MT
Mar. 14 – Lautenschlager and Sons, Bull Sale, Othello, WA
Mar. 15 – Green Mountain Red Angus, Bull Sale, Logan, MT
Mar. 16 – Klompien Red Angus, Bull Sale, Manhattan, MT
Mar. 19 – Lorenzen Red Angus, Bull Sale, Madras, OR
Mar. 19 – Milk Creek Red Angus, Bull Sale, Plevna, MT
Mar. 21 – JR Ranch/Sackmann Cattle, Bull Sale, Othello, WA
Mar. 23 – Nebraska Bull Test, Bull Sale, Broken Bow, NE
Mar. 23 – Westphal Red Angus, Production Sale, Grass Range, MT
Mar. 28 – Axtell Cattle Company, Production Sale, Sterling, CO
Apr. 1 – Pieper Red Angus, Bull Sale, Hay Springs, NE
Apr. 5 – Daigger-Orr Angus & Red Angus, Bull Sale, North Platte, NE
Apr. 8 – 5L Red Angus, Bull Sale, Sheridan, MT
Apr. 9 – Ludvigson Stock Farms, Bull Sale, Shepherd, MT
Apr. 9 – Redd Ranches, Bull Sale, Paradox, CO
Apr. 12 – Beckton Red Angus, Bull & Female Sale, Sheridan, WY
May 25 – Ludvigson Stock Farms, Online Bull Sale, Shepherd, MT
Sep. 11 – Ludvigson Stock Farms, Bull Sale, Visalia, CA
Sep. 24 – McPhee Red Angus, Production Sale, Lodi, CA
Oct. 29 – Ludvigson Stock Farms, Bull Sale, Shepherd, MT

SIMANGUS

Mar. 14 – Parry Angus, Bull Sale, Sterling, CO
Mar. 16 – Wagonhammer Ranches, Bull Sale, Albion, NE
Mar. 24 – Western Cattle Source, Production Sale, Crawford, NE
Mar. 26 – Diamond Peak Cattle, Bull Sale, Loma, CO
Mar. 26 – T-Heart Ranch, Bull Sale, La Garita, CO
Apr. 9 – Redd Ranches, Bull Sale, Paradox, CO
Apr. 23 – Herring/Hi Country, Bull and Quarter Horse Sale, Saratoga, WY

SIMMENTAL

Mar. 14 – Bar CK Ranch, Bull Sale, Culver, OR
Mar. 24 – Western Cattle Source, Production Sale, Crawford, NE
Mar. 26 – T-Heart Ranch, Bull Sale, La Garita, CO
Mar. 28 – Vertical Edge Genetics, Production Sale, Bancroft, ID
Mar. 31 – Open Gate Simmental, Bull Sale, Augusta, MT
Apr. 2 – Big Country Genetics, Bull Sale, Powell, WY
May 1 – Poppe Cattle Co., Bull Sale, Fallon, MT

STABILIZER

Mar. 27-28 – Leachman Cattle of Colorado, Bull & Female Sale, Fort Collins, CO

COMMERCIAL

Mar. 16 – Cattlemen's Livestock Market, Special Feeder Sale, Galt, CA
Apr. 7-8 – Superior Livestock Auction, Gulf Coast Classic VII, Natchitoches, LA
Apr. 14 – Western Video Market, Turlock, CA
Jul. 11-13 – Western Video Market, Silver Legacy, Reno, NV
Nov. 5 – Cattlemen's Livestock Market, Female Sale, Galt, CA

HORSE

Apr. 23 – Herring/Hi Country, Bull and Quarter Horse Sale, Saratoga, WY

Tips on biosecurity to keep the herd healthy

Just as sickness can spread among humans in a close contact environment, it can spread with beef cattle that are commingled for the first time. However, the experts at the Kansas State (K-State) University Beef Cattle Institute said there are steps producers can take to lessen the disease risk before bringing a new animal onto the property.

This was the topic of discussion on a recent "Cattle Chat" podcast, featuring the perspectives of K-State veterinarians Brad White, Bob Larson and Brian Lubbers in addition to Julia Herman, beef cattle specialist veterinarian for the National Cattlemen's Beef Association.

"When we talk about biosecurity, we are really talking about ways to keep diseases out of our operations," White said.

The experts agree that the level of disease risk varies across different herds because of the differences in management practices.

"Many commercial cow-calf operations are considered fairly closed herds because they bring few new animals into the herd," Larson said, referring to a herd that adds a new bull on occasion but raises all its replacement females.

"The more cattle you bring into the herd, the greater the disease risk becomes, leading to an increased emphasis on biosecurity," Lubbers said.

To lessen the risk for disease, Herman advised producers to purchase their cattle from a reputable seedstock operator.

"Reputable seedstock operators test their cattle for diseases before selling them, keep complete records and their cattle are in good condition," Herman said.

Lubbers stressed the importance of whole-herd testing to catch chronic diseases.

"Some diseases may not appear right away, so testing the herd over multiple years is the best practice to ensure that the herd is free of disease," Lubbers said.

Even when purchasing cattle from a reputable seller, Herman recommends all new cattle go into a 21-30 day quarantine in their new location to be sure they are not carrying an unexpected sickness to the rest of the herd.

White added that isolating new cattle from the rest of the herd can reduce sickness that is transmitted through the air.

"We need to make sure the new cattle don't have nose-to-nose contact with the rest of the herd for that isolation period," White said.

Larson suggested that new cattle be placed in a pasture separated by a gravel road or other barrier that gives the animals a distance greater than a fence line.

The experts also suggest working with a local veterinarian to discuss a biosecurity plan before a disease outbreak.

White said: "Disease plans that happen after there is a problem are not nearly as effective as preemptive plans. A little planning goes a long way toward total herd health." — **K-State Research and Extension**

Brooks Chalky Butte Angus Ranch
Annual Production Sale
Saturday • 1 pm MT
April 2, 2022
Bowman Auction Market • Bowman, ND
Selling
165 Yearling Registered Angus Bulls
550 Commercial Heifers
1 Ranch Gelding
Sires Represented:
Sitz Stellar 726D 18397542 18 Sons Sell!
KG Justified 3023 17707279 19 Sons Sell!
Brooks Payweight 7257 18921351 7 Sons Sell!
Sitz Accomplishment 720F 19078208 16 Sons Sell!
Musgrave 316 Stunner 18467508 16 Sons Sell!
Baldridge Alternative E125 18837398 7 Sons Sell!
Woodhill Blueprint 18876777 15 Sons Sell!
SAV RainFall 6846 18578963 20 Sons Sell!
EZAR Gold Rush 6001 18510183 11 Sons Sell!
Cattle bred to perform on the ranch, in the feed yard, and on the plate.
Free delivery – ND, MT, SD, WY, Canadian Ports of entry.
No Creep, Bulls developed on moderate ration to ensure soundness, fertility and longevity.
For more information or sale book, contact:
Brooks Chalky Butte Angus Ranch
7206 146th Ave SW • Bowman, ND 58623
brookssa@ndsupernet.com
brookschalkybutteangusranch.com
Steve Brooks - 701-523-5391 • Cell 701-523-6732
Ryan Brooks - 701-523-3730 • Cell 701-523-6731
Skeeter Brooks – Cell 701-440-8436
Sale will be broadcast on:
Superior Productions Broadcast Live

USFWS can kill owls for threatened owl study



Pacific Southwest Forest Service

A northern spotted owl.

— Northern spotted owl

The 9th Circuit Court of Appeals ruled March 4 the U.S. Fish and Wildlife Service (USFWS) can kill thousands of barred owls in Oregon forests to determine if it will help with the northern spotted owl's recovery in the area.

The animal activist group Friends of Animals argued the experiment would harm northern spotted owls without any overall net conservation benefit to the species. However, the appeals panel affirmed the district court's earlier decision that the experiment would in fact produce a net conservation benefit under the Endangered Species Act (ESA).

The panel said the barred owl removal experiment would allow the agency to obtain critical information to craft a policy to protect the species, and that the USFWS accurately analyzed baseline conditions and critical habitat. The judges also ruled that the agency complied with the National Environmental Policy Act (NEPA) and did not have to conduct a supplemental environmental impact statement.

Background

The northern spotted owl is considered a subspecies of the spotted owl and lives in mature and old-growth forests on the West Coast. The species has been listed as threatened under the ESA since 1990.

In contrast, the barred owl is an abundant species native to eastern North America, which has gradually moved westward, encroaching on the northern spotted owl's range. The two species' ranges now completely overlap, and their food sources and habitats are also very similar, according to USFWS.

In its latest recovery plan for the northern spotted owl, USFWS said there is strong evidence the barred owl negatively affects the spotted owl by displacing the species and reducing their survival and reproduction. The 2011 recovery plan called for the agency to design and implement large-scale control experiments to assess the effects of the barred owl's removal.

USFWS issued a record of decision in 2013, authorizing the lethal barred owl removal experiment, which designated four study areas. In the Oregon Coast Range study area—the area of interest in the suit—about 3,600 barred owls were to be removed in four years.

The ensuing environmental impact statement acknowledged the northern spotted owl could experience minor and short-term negative effects, but the overall impact would be largely positive because of decreased competition.

USFWS is authorized to issue enhancement of survival permits, which authorize take for scientific purposes or to enhance the survival of an affected species. The agency can issue the permits and enter into Safe Harbor Agreements with nonfederal landowners whose land the agency seeks to use for conservation efforts. The Safe Harbor Agreements set the terms of the permits and try to incentivize nonfederal property owners to voluntarily undertake conservation activities on their property.

USFWS entered into agreements with four nonfederal landowners within the Oregon Coast Range study area, and in 2017, Friends of Animals sued the agency.

"We hold that FWS complied with the ESA and NEPA in issuing the permits and Safe Harbor Agreements. We affirm the district court's grant of summary judgment for FWS," the court's opinion concluded. — **Anna Miller, *WLJ* managing editor**



SAFETY ZONE™
CALF CATCHERS
A Cowman's Best Friend at Calving Time!



Laurel Gilbertson, NE - "I could not, and would not be in business without it."

ONE PERSON can now SAFELY and EASILY process calves without concern of the protective mother cow!

Watch _____ action video at
SafetyZoneCalfCatchers.com
For local dealers or to order, call 877-505-0914 today!