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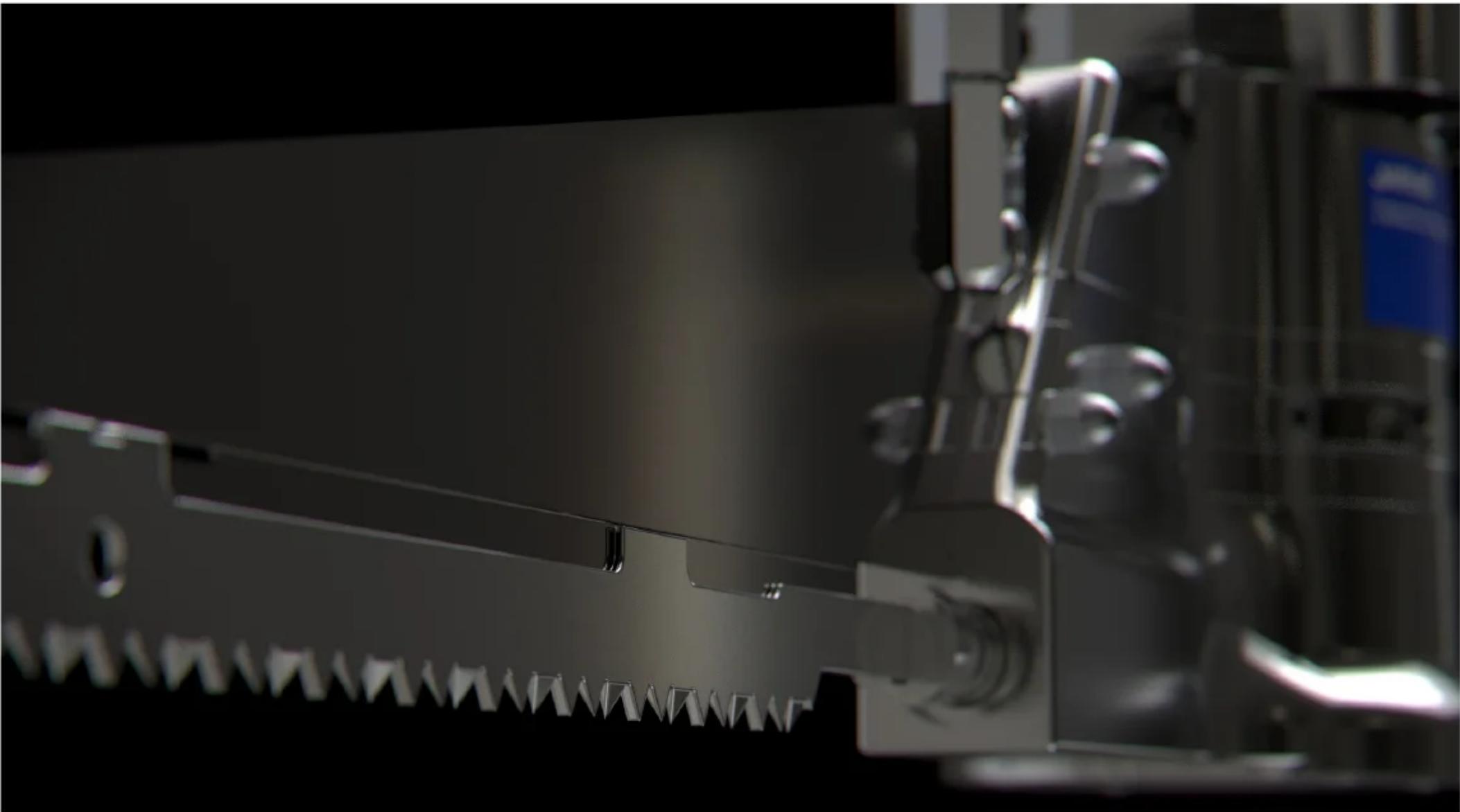


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AUGUST 2023 / VOLUME 236 / ISSUE 8



COVER STORY

THE DELI REPORT 2023 – Learn about the processing and packaging innovations that are powering the category.

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INDEPENDENT
PROCESSOR
FEATURING THE LATEST NEWS, TRENDS, AND ANALYSIS

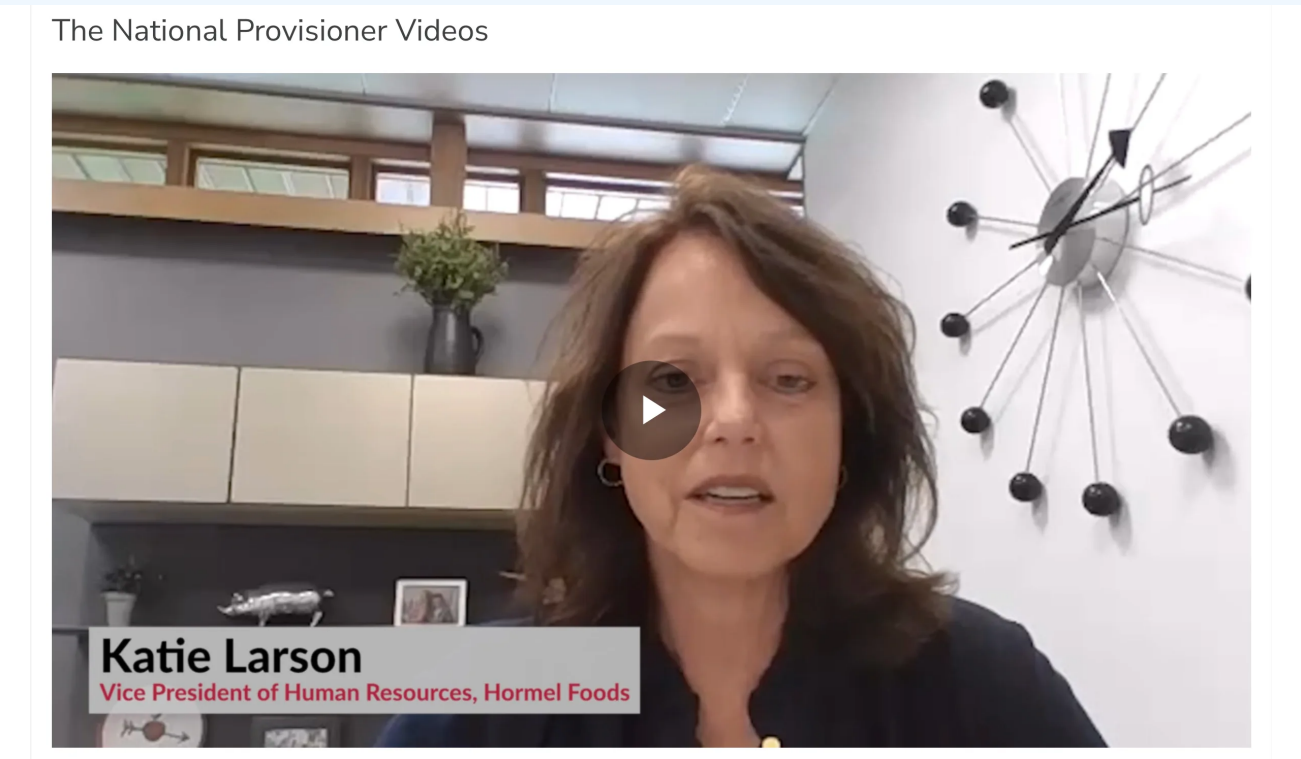
INDEPENDENT PROCESSOR OF THE YEAR: ALPINE WURST HAUS
Keeping German traditions alive at this expanding family-owned business.

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SPECIAL REPORT: FARM TO CONSUMER SALES
Family-owned operations focus on local customers.

U.S. Capitol the industry needs to watch.

based learning in meat science.



THE ART OF A GREAT WORKPLACE WITH HORMEL FOODS' KATIE LARSON
The National Provisioner sits down with Katie Larson, vice president of human resources for Hormel Foods, a company recently voted "One of America's Best Companies to Work For" by *U.S. News & World Report*. We discuss how to make a workplace exceptional, old business practices that are getting left behind in the name of progress, and the correlation between high workplace standards and product innovation.



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3. Hormel Foods brings together multiple brands with introduction of Columbus Handcrafted Charcuterie Board
4. New Slater's 50/50 franks available at Ralphs grocery stores across California
5. Jimmy John's introduces new Caprese Salami Pesto Sandwich, available for a limited time



MOST-POPULAR FEATURES:

1. Sausage Report 2023: Innovation thrives in the sausage category
2. The 2023 Meat and Poultry Top 100 Report: Hungry consumers feed companies' bottom line
3. State of the union on National Fried Chicken Day
4. Processor of the Year 2023: Mosner Family Brands
5. Automation & Robotics Report: Processors address labor issues and enhance safety



1. Episode 158: Hickory Nut Gap discusses Vital Blend product with grass-fed beef and organ meats
2. Episode 157: The building block approach to meat protection
3. Episode 156: Doug Fulnechek discusses strategies to control Salmonella
4. Episode 155: Circana EVP and protein practice leader Chris Dubois shares his insights on the current and future outlook for seafood in retail.
5. Episode 154: Milan Patel of PathogenDx on DNA-based pathogen testing

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AUGUST BOUNTY

For our August issue, *The National Provisioner's* eMagazine is covering a lot of ground. First off, make sure to check out our Cover Story: The Deli report 2023 for the latest in operational efficiencies being embraced in the category. From the deli case, we go to the Texas Panhandle, where Alan McAnelly of Hamilton Sheep Station shares some production insights for our Regenerative Agriculture Special Report.

Read our Crop Report 2023 and find out how the market for key production inputs will impact livestock production for the remainder of the year.

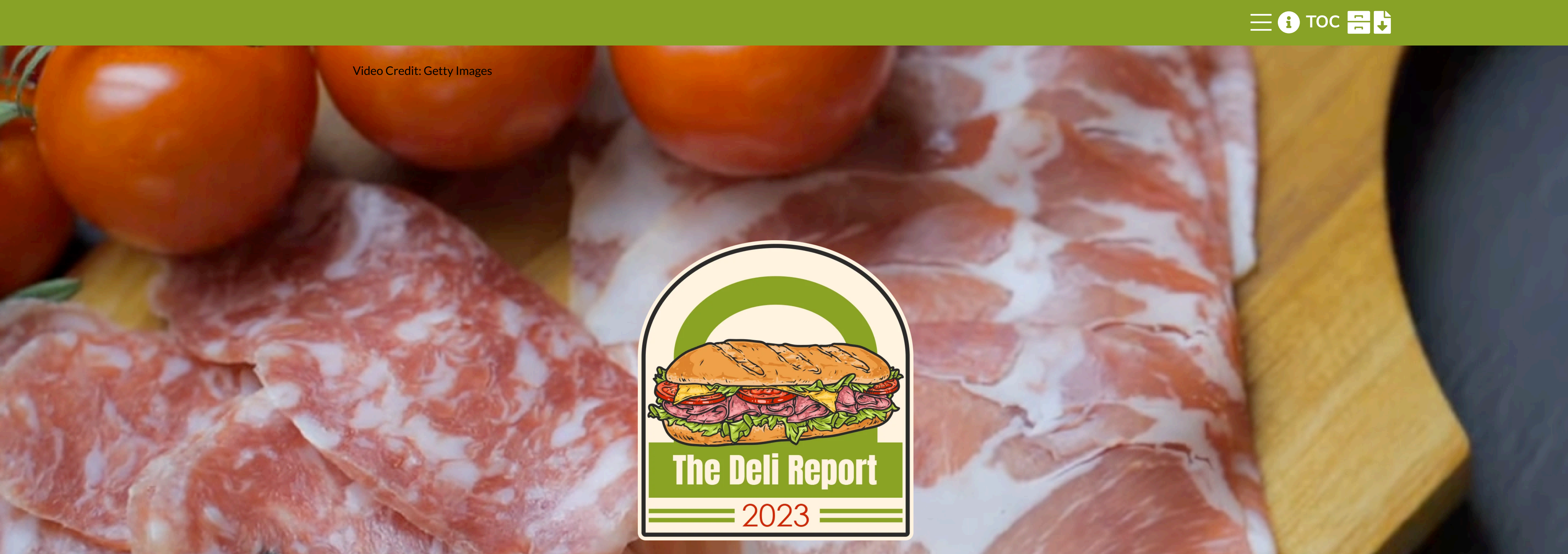
And don't miss Associate Editor Sammy Bredar's article on our *Independent Processor* of the Year: Alpine Wurst.



FRED WILKINSON



EMAIL FRED WILKINSON



MANUFACTURERS TACKLE DELI INDUSTRY CHALLENGES

SUPPLIERS OFFER THEIR INSIGHTS ON THE CURRENT STATE OF THE DELI CATEGORY.

BY SAMMY BREDAR
ASSOCIATE EDITOR

According to Circana retail data analysis, prices for packaged lunch meat averaged \$6.28 per pound in June 2023, an increase of 7.4% for the category compared with June 2022. In June 2023, dollar sales for lunch meat totaled \$637 million, a 3.4% decrease compared with a year ago. Pounds sold were down 10%. For that 52-week period, packaged lunch meat prices averaged \$6.21 a pound, up 16.6%.

The deli category includes a wide range of meat types and cuts.

With the deli category including so many varieties, deli processors can come up with a plethora of issues to tackle. Manufacturers Grote Co., Ossid and Multivac offer some insights to make deli processing a little easier.

Grote Co., a food processing equipment manufacturer that offers a variety of systems for processors, also provides solutions for deli processors. Andy Schneider, sales director, said slicers must offer versatility for deli processors, including options for plant-based products.

“Slicers are easily programmed to stack, shingle, or bulk slice and are ideal for slicing products in log form and whole muscle products, such as turkey breasts,” he said.

Schneider said that log/butt ends of sliced deli products can be a complication for deli producers.

“These log ends are usually sold in bulk at a fraction of the price, manually sliced offline, or reworked into meat blends— impacting yield, profitability, and production,” Schneider said.



CHAD DEATON. CREDIT: OSSID

Photo Credit: Multivac

He said that the Grote Log End Slicer caters to this issue in the deli category. “The Log End Slicer recovers premium slices from previously discarded log ends, eliminating rework and/or manual slicing and increasing yield on every sliced deli log.”

Grote Co. offers support for these customers seeking solutions for their deli processing.

“We offer commissioning/startup support, as well as refresher training and PM programs that can be tailored to meet the needs of any deli operation,” he said.

Multivac, another manufacturer, offers various options for deli equipment and packaging, including thermoformers with various packaging styles, said Chris Mason, director of sales – Processing Division for Multivac Inc.

“Peel/reseal packs are becoming popular as are zipper packs making partial use of the contents very easy for the consumer,” Mason said.

ReeForm E40 thermoformer. Photo credit: Ossid

Schneider commented that, in retail, they are seeing an increase in trays or tubs for deli product packaging. He said that for deli producers it is difficult to make a product stand out from others in the store.

Mason emphasized the importance of simplicity and consistency for deli producers, adding that slicers cater to this important aspect of deli production.

Chad Deaton, the horizontal product manager at Ossid, another industry manufacturer, said that deli producers should be aware of integrating their packaging machinery.

“Often, a deli producer’s packaging line involves multiple machines that all need to be integrated and synced together for optimal performance,” Deaton said.

He noted the popularity of thermoform in deli production. “Thermoform fill seal is popular with deli manufacturers because it offers flexibility and speed to package a wide variety of deli meats,” Deaton said.



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"Dorper lamb has a sweet, delicate meat flavor, and with regenerative agriculture this fits in to what the younger consumer wants," says Alan McAnelly, owner of Hamilton, Texas-based Hamilton Sheep Station. Photo credit: American Lamb Board

SINCE ADOPTING REGENERATIVE AGRICULTURE TECHNIQUES, ALAN MCANELLY’S LAND HAS BECOME MORE PRODUCTIVE WHILE REQUIRING LESS TIME, EQUIPMENT AND MONEY.

FRED WILKINSON
CHIEF EDITOR

The goal of regenerative agricultural practices is to promote not only climate change mitigation but also improved productivity and profitability for producers as their soil regains fertility and resiliency.

The U.S. Department of Agriculture lists a variety of regenerative agriculture practices, including feed management to reduce enteric emissions and prescribed grazing, as providing additional benefits that will improve soil health and provide other ecosystem benefits.

For Alan McAnelly, owner of Hamilton, Texas-based Hamilton Sheep Station, regenerative agriculture means, “We are a ma and pa operation trying to be efficient in producing a ram needed by the rancher raising lamb for the supper table.”

McAnelly’s agricultural roots run deep, growing up on a cotton and cattle farm in the Texas Panhandle, “Where everyone plowed deep and added fertilizer, with parents who grew up in the Depression and Dust Bowl,” he said.

It was a tough life, and everybody lived off the farmer and rancher, McAnelly said.

He graduated college in 1969 with a degree in veterinary medicine, eventually retiring in 2002 and buying land in Hamilton in central Texas.

“I bought four different places that had been old German homesteads next to each other and started raising Registered Dorper sheep, running around 400 to 500 ewes,” McAnelly said. “We supply commercial lamb producers with hardy, high quality rams for the breeding of their ewes.”

He later added some cattle — an Angus/Hereford crossed with a South Poll bull.

“I think sheep and cattle are necessary for a ranch in central Texas to utilize all the substandard pasture and grasses,” he said.

McAnelly said his operation’s main goal is to help improve the commercial sheep using its Dorper rams, raising rams to the standard of 16 weeks old, weighing 80 to 100 pounds, 50% to 55% lean, and 10% to 12% fat.

McAnelly’s inspiration for adopting regenerative agriculture techniques was in part to save the land — but also to save time and money.

“I had always planted oats in September for winter grazing, which the sheep love,” he said. “Then I would plow the field two or three times before planting again for the spring/summer crop of sorghum/sudan. This process of plowing at least three times a year and fertilizing twice a year, with chemical application of pesticides, was time and money consuming.”



“We are a ma and pa operation trying to be efficient in producing a ram needed by the rancher raising lamb for the supper table,” McAnelly says. Photo credit: American Lamb Board

He had many questions about regenerative agriculture no one could answer, so McAnelly started reading books and seeking information on regenerative agriculture techniques. He eventually found some answers thanks to Nic Vos, a Kansas-based producer with experience producing no-till and dryland crops and raising sheep in southwestern Kansas.

“I had heard Nic Vos in Kansas talk on cover crops, realizing I need a better summer crop,” McAnelly said. “We invited Nic to Texas several times to give talks. Then Nic came to my place, and we discussed the different variety of crops for my winter and summer grazing.”

That lead to MacAnelly adding half a dozen different plants, stopping use of commercial fertilizers and chemicals, and buying a no-till drill and reducing plowing — eventually completely stopping plowing.

McAnelly said he and his wife, Jolene, started noticing that their land was more productive while requiring less time, equipment and money. In particular, their weaning lambs did well — especially the younger, thinner lambs — without any supplements, he said, greatly reducing their feed costs.

“We are improving our soil and giving our sheep a better diet — with less inputs,” he said. “Regenerative agriculture is greatly reducing the greenhouse gases. I am storing more carbon and nitrogen in the soil by not plowing and using commercial fertilizers instead of releasing it into the atmosphere. A diversified plant crop with their roots were taking nitrogen and carbon out of the atmosphere. Some plant roots open to loosen the soil so more water could penetrate in field, and high carbon in my soil helps to retain water. Plowing was destroying the earthworms and all the little holes in the ground. With cover crops and livestock grazing for the cash crop, we have healthy soil, healthy plants, healthy animals — and healthy people.”



Sheep and cattle are necessary for a ranch in central Texas to utilize all the substandard pasture and grasses, McAnelly says. Photo credit: American Lamb Board

FIRST STEPS

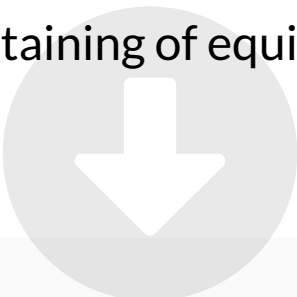
A key consideration to keep in mind for livestock operations weighing whether to incorporate regenerative agriculture practices into their production is that the vast majority of inputs, supplies, technical resources and support is geared to meet the needs of conventional agricultural production.

“Industrial agriculture is a big business that supports big businesses like equipment, and chemical and fertilizer companies,” McAnelly said. “Universities receive a lot of grant money from big businesses. The government has programs and insurance plans to bail out the farmer in bad times.”

In addition to those systemic challenges, transitioning to regenerative agriculture brings with it familiar operational challenges. Many farms have several family members, owners, a landlord and /or bankers to deal with, which can make changes that effect production and income complicated.

“To make changes is difficult — changing to no-till and reducing chemicals and fertilizers probably will reduce production for a short time, which will decrease gross income,” McAnelly said. “But the land is coming alive with all the little organisms that make your land fertile. Here on our ranch, we plant two seasons a year, and it was three years before we noticed our soil and crops improving. Now we have increased production with less input cost. Livestock is necessary in our program.”

“Farm labor is a big issue -- the cost of equipment and maintaining of equipment and the farm’s physical condition,” McAnelly said. “Plumbers and mechanics are very expensive.”



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Photo Credit: Minnesota Corn Growers Association

YIELD MAY BE AFFECTED BY DROUGHT AND THE REDUCTION IN THE USE OF FERTILIZER AND CROP INPUTS BY THRIFTY FARMERS. BY DAN EMERY

In the protein business, feed ingredients are over 50% of our cost. No two years in farming are alike or free of drama. Much can change between now and the harvest, The key is bringing order to chaos and having a long-term strategy.

This year there has been a dramatic reduction in carryover. The dry spell has spanned the wheat fields of the Great Plains and the Corn Belt in the Upper Midwest, leaving areas with fractions of their normal rainfall as they head into crucial growing periods for corn and soybeans. La Niña is on the way out and El Niño is on the way in, an advisory was issued, with a 56% chance for a strong El Niño to develop this coming winter. **

This year's corn and soybean meal prices will be higher than average, with protein supply in excess this is an unprofitable combination. The abundant crop harvest in Brazil is also a factor. Additional unusual global consumption patterns in 2022 further eroded carry over supplies. If there are any key issues such as continued lack of rain in July, we could have an even more severe situation, because the market does not have the usual supply carryover to cushion an event. The fear is a repeat of a drought-stricken 2012 that sent crop prices surging. The next three to four weeks are going to be huge. We recently saw significant foreign soybeans imports to the U.S. Global feed prices are expected to continue declining, with projected costs for 2023 estimated to be 10% to 15% lower than the historic highs of 2022 ***

The Ukrainian effect: the grain agreement initially signed in 2022, allowing grain exports from Ukrainian ports in the Black Sea. On May 17, 2023, when the deal was last set to expire, it was extended for two more months. The war continues to be a major disruption. Ukraine now ranks fourth, contributing more than 15% of world corn exports and 10% of wheat exports. Potash is a key ingredient in fertilizer. Russia/Belarus mines produce 38 % of the world's potash. Long term, an extended disruption could result in a significant reduction in fertilizer use globally, resulting in a reduction in yield. The long-term result will be famine and starvation in certain parts of the world. To date Canadian potash mines have exceeded U.S. demand.

Photo credit: iStockphoto.com

We continue to express long-term concerns about our farmers and their ability to continue supplying the feed ingredients we need on a cost-effective basis. Around 70% of the farmland is going to change hands in the next 15 years. This means the next generation of farmers need to take control and continue to produce the crops we need to feed our animals and supply ingredients for our baked goods. Venture and hedge funds are buying and operating large farms. Additionally, experts are genuinely concerned that we continue to lower our water tables and 10 years from now will have significant challenges with the water supply. Areas of the U.S. are facing significant water stress such as Nebraska, Colorado, California, Delaware, Ohio, Virginia, North Carolina, Arkansas and the entire Southwest. As an industry we need to improve our stewardship of water use, returning it back into supply in the form of potable water. We also need to protect adjacent waterways.

CORN

The U.S. Department of Agriculture also came in higher than expected on corn acres, with 94.1 million acres expected to be planted this spring, a million more acres than the highest pre-report market estimate. new estimate for corn acres shocked analysts after jumping 6% higher year-over-year to 94.1 million acres – an increase of 5.52 million acres versus 2022. That was also more than 2 million acres above the average trade guess of 91.853 million acres. It is also the third-most corn planting since 1944.

Quarterly corn stocks moved from 7.401 billion bushels at the beginning of March down to 4.106 billion bushels through June 1. It is also below year-ago results of 4.349 billion bushels. Analysts were expecting a larger total, with an average trade guess of 4.255 billion bushels, although individual estimates ranged between 4.086 billion and 4.410 billion bushels. Usage data for all three commodities between March 1 and June 1, 2023, was much larger than the markets had been anticipating, which gave all three commodities a price bump. But then USDA released acreage data and Stocks Report.



Photo Credit: Shutterstock - Zoljko-Radojko

SOYBEAN

USDA's June 30 Acreage Report caught everyone by surprise, especially the soybean markets. USDA's count of 83.5 million acres of U.S. soybeans planted in 2023 was so far off everyone's radar that it sent nearby July 2023, USDA lowered U.S. soybean acres by 5% versus 2022, with just 83.5 million acres. Acreage is steady or lower in 21 of the 29 estimated states. It was also noticeably below the average trade guess of 87.673 million acres. Total planted oilseed area is almost 1.2% lower than last year, with smaller soybean and sunflower acreages driving the decline. Quarterly soybean stocks also shifted lower, moving from 1.685 billion bushels in March down to 796 million bushels through June 1. That was lower than both year-ago totals of 968 million bushels and the average trade guess of 812 million bushels. Individual analyst estimates ranged between 750 million and 920 million bushels.

The hopes of the renewable diesel boom fizzled earlier for farmers than the market realized, despite more capacity coming online this year. Soybean crush capacity has been expanding since 2021, but most of the expansion will take place from 2023 through 2027 with the addition of 620 million bushels by the 2026-27 crop year. A 30% increase from the US Department of Agriculture's forecast soybean crush of 2,220,000 bus in 2022-23. ***

Slope, Rectangle, Font

WHEAT

All-wheat acres were close to the average analyst estimate of 49.656 million acres, with USDA offering a slightly lower total of 49.628 million acres. Also, a year-over-year increase of 9%. The total is comprised of 25.7 million acres of hard red winter, 7.66 million acres of soft red winter, 3.68 million acres of white winter, 11.1 million acres of spring wheat and 1.48 million acres of durum wheat. Quarterly wheat stocks eroded from 946 million bushels in March down to 580 million bushels through June 1. That was modestly lower than the year-ago-totals of 698 million bushels and was also below the entire range of trade guesses, which came in between 588 million and 690 million bushels.

US wheat exports have declined for decades to the point that the United States is considered a residual supplier to the global market with Russia the top wheat exporter. Brazil has overtaken the United States as the world's largest soybean exporter, with China, the world's largest soybean importer, indicating it favors to do business with Brazil. The United States remains the world's largest corn exporter by far, but Brazil also is making inroads in that sector with recent record-high corn production and exports. ***

Font

Along with soybeans, the share of domestic demand for corn and wheat is expected to increase in the coming years, resulting in lower exports. The US share of global export markets will decrease due to growing domestic demand, especially for soybeans. This is also the result of ever-increasing crops in South America, large Russian wheat production and high US prices compared to export competitors. We expect global market uncertainty to be constant against stable, and potentially increasing domestic demand. Domestic demand is becoming less sensitive to prices, based on 10-year averages of commodity prices. *** If you follow a five-year trend, grain-based feed ingredients including corn, wheat and soybeans prices travel within a pricing range of one another. Their price also correlates to the price of oil. Estimating and gaining control over that cost is always a factor in a successful or unsuccessful year for good companies in the protein business. Ethanol production continues to get more efficient, maximizing the energy extracted from every bushel of corn. Ethanol is now the number one consumer of corn with animal feed ingredients close behind in second. Crude oil markets are back into the \$75 per barrel range caused by OPEC moderating production, Russian disruptions, and a recent increase in consumption.

LOOKING AHEAD

Prices and transportation costs will remain very volatile as the global situation continues to evolve. Because of superior farming technology and the ingenuity of the American farmer, we are projecting a good harvest this year. Yield may be affected by drought and the reduction in the use of fertilizer and crop inputs by thrifty farmers. Global politics will continue to influence our cost structure and our ability to deliver products cost-effectively to our customers. By limiting the supply, analysts with the financial services company report an economic downturn would affect poultry market conditions. With ongoing high inflation pressuring consumer spending power, and operational issues, the second half of 2023 will continue to challenge producers. Global markets are expected to stay strong in 2023, with global poultry demand expected to benefit from consumers trading down to cheaper protein. However, global economic growth is expected to fall, while inflation is expected to stay high.

Dan Emery is CEO of Meaningful Solutions and a member of The National Provisioner's Editorial Board.

SOURCES

* June 30, 2023, The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS)

** <https://www.climate.gov/news-features/blogs/how-do-noaa-scientists-predict-annual-global-temperature-ranking-ahead-time>

*** RaboResearch Food & Agribusiness in its recent "The Mighty US Crop Markets Through 2030

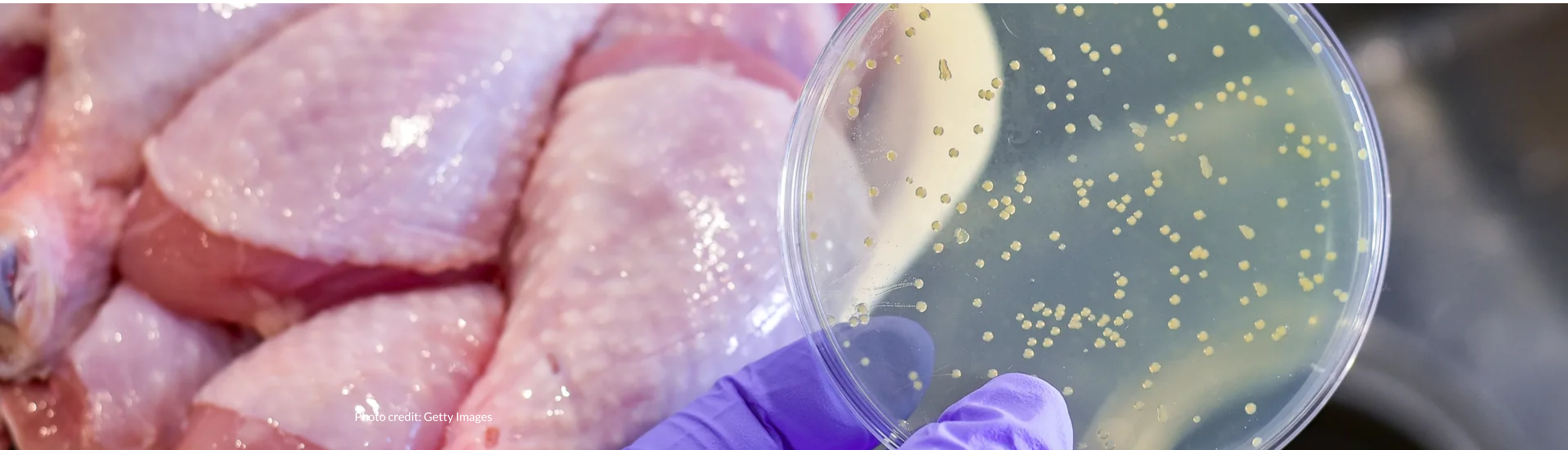


Photo credit: Getty Images

THE UNCONSTITUTIONAL RECALL

COMPANIES OFTEN FIND THEMSELVES AT AN EXTREME DISADVANTAGE WHEN DEALING WITH USDA REGARDING POTENTIAL RECALL OF FOOD PRODUCTS.

BY SHAWN K. STEVENS
FOOD INDUSTRY COUNSEL LLC

It is well-known within the meat processing industry, with very few exceptions, that there is no such thing as a mandatory recall. Put differently, because the U.S. Department of Agriculture was never given “mandatory recall authority” by Congress, and thus did not have the ability to force a company to take the steps necessary to recall a food product, all recalls announced by industry were generally deemed to be “voluntary.”

But, what does the term “voluntary” really mean?

For those companies who have been on the receiving end of a USDA Recall Committee conference call, attended by no less than 20 USDA representatives all “urging in the strongest possible terms” that the company recall its products, the idea of a voluntary recall is a complete fallacy. This is even more true when the company is told and threatened during these calls that the refusal to initiate a “voluntarily” recall will be met with enhanced regulatory enforcement activities, the seizure of product, and/or court-ordered injunctions. And, then, if the company then hints in response, even if only slightly, that it might be willing to consider a “voluntary” recall, the USDA will then afford the company a mere 30 minutes to review the recall announcement that the USDA drafted, prior to the USDA announcing the existence of the voluntary recall to the public. When contrasted against the guaranteed constitutional protections of due process, the increasingly routine practice by USDA of coercing and strong-arming companies to “voluntarily” conduct recalls in the absence of legal authority is a little worrisome.

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I have also witnessed this authority used by USDA to compel a “voluntary” recall when, perhaps, reasonable minds might differ about whether a recall was actually necessary. Imagine the following hypothetical – a single ingredient (i.e., a ready-to-eat onion) incorporated into a frozen product (i.e., a pizza) is later discovered to be contaminated with *Listeria monocytogenes*. Although the supplier of the RTE onions recalls the product because it will likely be consumed by consumers without cooking, the pizza has detailed cooking instructions that, if followed, would destroy any pathogens that might be present.

Should the hypothetical frozen product be recalled? I suppose it depends upon the sensitivities of the USDA Recall Committee on that particular given day. If the committee would like to see the product recalled regardless of the cooking instructions and likelihood that any *Listeria* present will be destroyed by consumers, the committee might nevertheless elect to strong-arm the company into announcing a “voluntary” recall, as detailed above, under the threat of more significant consequences.

In the end, food companies often find themselves at an extreme disadvantage when dealing with USDA when standing on the precipice of potential (but possibly not necessary) recall of food products. I thus strongly recommend that USDA consider becoming less bullish (and more calm and reasonable) when working with companies contemplating recall decisions, and that companies at least consider pushing back on the USDA’s bullying when the agency is wrong.

A voluntary recall is not unconstitutional, but leaving a company with no real choice but to choke on its own recall without any discrete legal authority may cross the line.

COLD CHAIN MANAGEMENT DURING TRANSPORTATION CAN IMPACT BEEF QUALITY

Photo Credit: sefa ozel / iStock / Getty Images Plus / Getty Images

PREVIOUS RESEARCH HAS INDICATED STORAGE TEMPERATURE CAN IMPACT BEEF COLOR STABILITY AND WATER CAPACITY, IMPACTING PRODUCT YIELD AND SHELF APPEAL.

BY CHRISTINA BAKKER¹, LYDIA O’SULLIVAN¹, KEITH UNDERWOOD¹, AMANDA BLAIR¹, HEATHER RODE-ATKINS², KYLE GRUBBS¹
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2 TYSON TECHNICAL SERVICES, TYSON FRESH MEATS

The impact of storage temperature on water holding has been studied for several decades, and previous research has indicated that storage temperature can impact beef color stability and water capacity, ultimately impacting product yield and consumer appeal (Hertog-Meischke et al., 1998; Jeremiah and Gibson, 2001). An estimated 2.55% of beef in retail stores is discarded due to discoloration resulting in approximately \$3.73 billion in lost revenue for the beef industry annually (Ramanathan et al., 2022). Thus, it is imperative that cold storage of meat products is optimized for meat quality. However, one area of cold storage that is relatively unstudied is during the transport of products from source plants to distribution centers. Therefore, the objectives of this study were to (1) determine the influence of transportation temperature on purge loss of subprimal striploins and subprimal center-cut top sirloin butts; and (2) determine the influence of transportation temperature on moisture loss, color stability, and tenderness of fabricated striploin steaks and top sirloin steaks.

This study utilized commodity choice beef strip loins and top sirloin butts obtained directly from a source plant in Northeast Nebraska. Twenty-four cases of each subprimal were divided evenly between two refrigerated trucks set to hold at 28°F or 38°F. The trucks then transported the product 600 miles over the course of 12 hours prior to storing the palletized meat in a cooler set to hold at 34°F to mimic product transport to a case-ready facility. After nine days, the product was subset with one subprimal from the center of each box used for subprimal purge loss evaluation and to be fabricated into eight one-inch thick steaks. The steaks were divided into treatments of 28°F or 38°F truck temperature for a second transport, aging duration of 0 or 5 days of a shelf life evaluation conducted after the second transport, and refrigerated or frozen storage conditions. The steaks were then allocated onto refrigerated trucks for the second transport at the two temperatures. The second transport covered 640 miles over a 12 hour period. The steaks were then returned to the previously described holding cooler for another ten days to mimic transport and storage at a distribution facility. Steaks were then handled according to their previously assigned treatments (day 0 of case life and refrigerated storage, day 0 of case life and frozen storage, day 5 of case life and refrigerated storage, and day 5 of case life and frozen storage). Day 0 refrigerated storage steaks were immediately evaluated for purge loss and cooked to evaluate Warner-Bratzler shear force (WBSF) and cook loss. Day 5 refrigerated storage steaks were placed in a simulated retail setting under fluorescent lighting and instrumental color was evaluated until day 5 before purge loss, cook loss, and WBSF evaluation. Day 0 and day 5 frozen storage steaks were frozen at the appropriate time for evaluation of WBSF and cook loss at a later date.

Overall, the temperature of the first transport of subprimals impacted the measured quality attributes more than the temperature of the second transport of steaks. Strip loin subprimal purge loss was not impacted by first transport temperature. However, sirloin purge loss was increased for subprimals transported at 38°F. Fresh strip steaks transported at 28°F for the first transport had brighter, more yellow color scores and less purge loss than steaks transported at 38°F. Fresh sirloin steaks transported at 28°F for the first transport were darker and had less purge loss than the 38°F treatment. An aging day by first transport temperature interaction was observed for sirloin steak redness values where steaks that underwent first transport at 28°F remained redder from day 0 to 4 of case life evaluation. No impact of first transport temperature was observed for fresh strip steak redness values, fresh sirloin steak yellowness values, cook loss or shear force values, or frozen strip steak and sirloin steak purge loss, cook loss, or shear force values. Additionally, no differences were observed for the effect of second transport temperature on fresh strip steak color or shear force, fresh sirloin L* and b* values, purge loss, cook loss, and shear force, frozen strip steak purge loss and shear force, and frozen sirloin steak purge loss or cook loss.

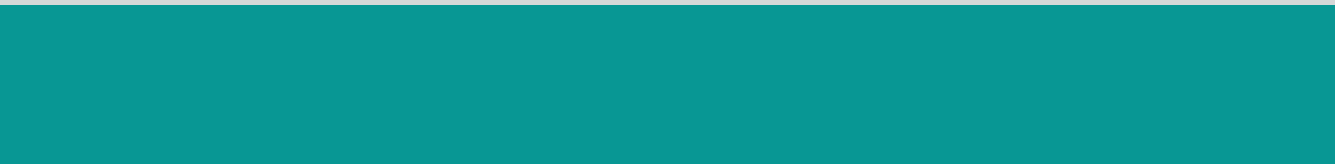
In conclusion, the temperature at which meat products are transported is an important factor in product yield and color. However, these data indicate that the impact of transportation temperature is variable across subprimals. Therefore, a universal recommendation for all meat cuts cannot be made at this time and further investigation of the impacts of transportation temperature is critical for the optimization of the meat supply chain.

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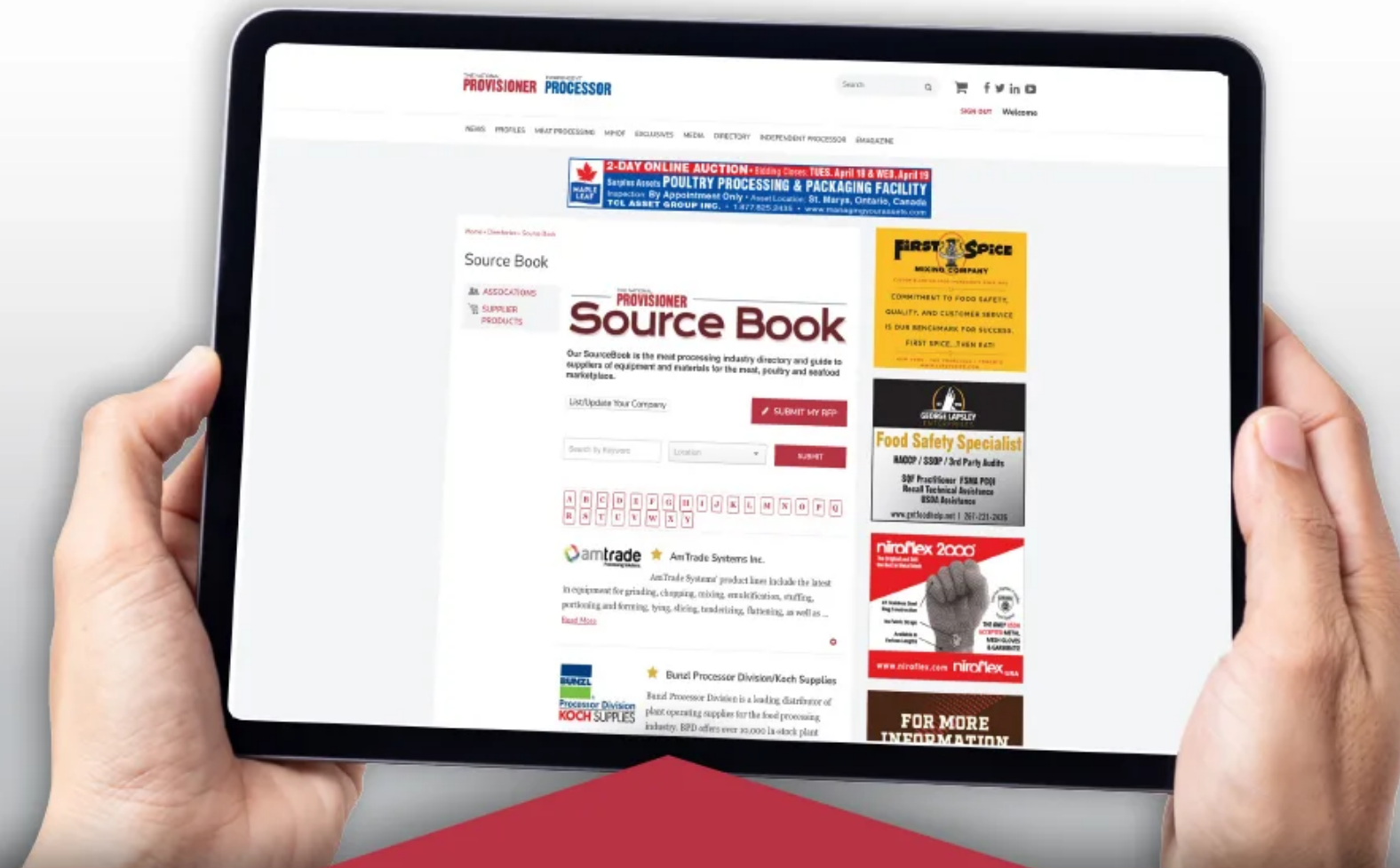
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Our SourceBook is the meat processing industry exclusive directory and guide to suppliers of equipment and materials for the meat, poultry and seafood marketplace. It includes resources for conveyors, mixers, processing and packaging systems as well as information on consultants. *The National Provisioner* Sourcebook is designed to provide you with sources for these important products & resources. Below is a sampling of some of the companies featured in this year's directory. We invite you to reference the supplier logos below and click on them to learn more about each company's offerings. Plus, be sure to visit (and bookmark!) our easy-to-use online directory here. link to www.provisioneronline.com/sourcebook



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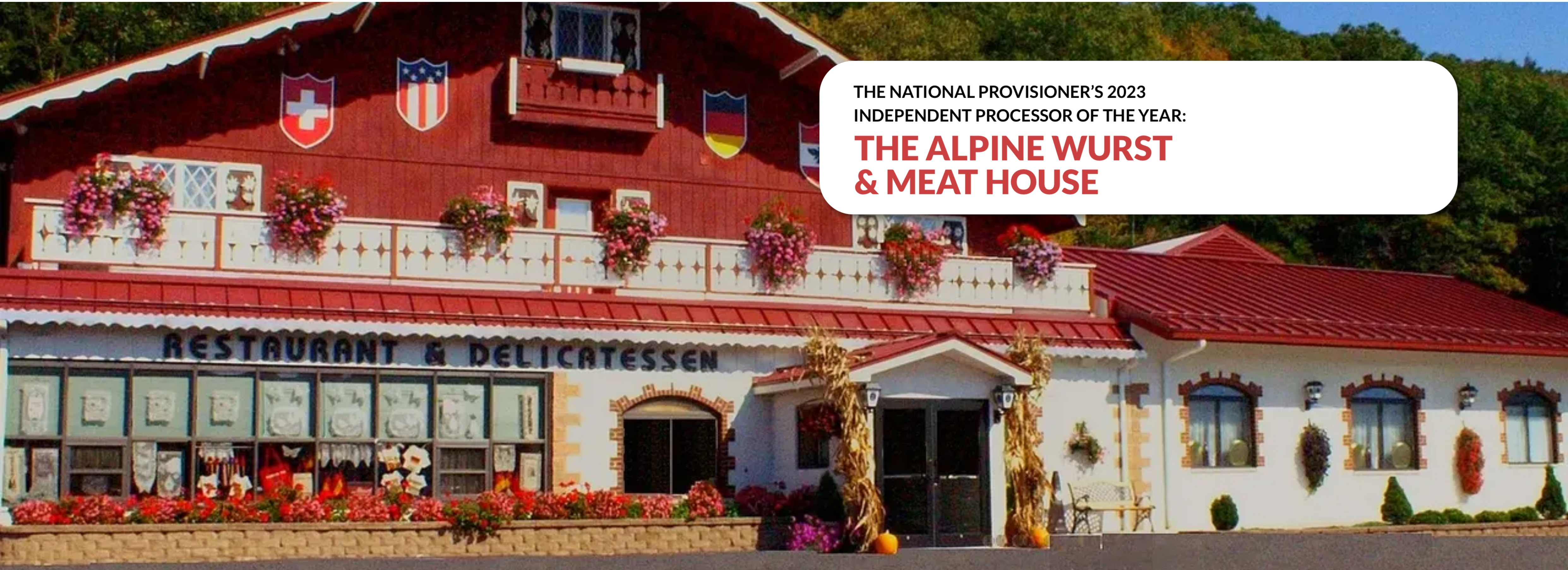
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THE NATIONAL PROVISIONER'S 2023
INDEPENDENT PROCESSOR OF THE YEAR:
**THE ALPINE WURST
& MEAT HOUSE**

KEEPING GERMAN TRADITIONS ALIVE

**THIS FAMILY-OWNED BUSINESS OPERATES IN AROUND 400 STORES
SPANNING NEW YORK, CONNECTICUT, PENNSYLVANIA AND NEW JERSEY.**

BY SAMMY BREDAR
ASSOCIATE EDITOR

The National Provisioner's Independent Processor of the Year is The Alpine Wurst & Meat House, located in Honesdale, Pa. Owners Mark and Gretchen Eifert run Alpine Wurst, a business that has been operating since 1977. Gretchen said that Mark's parents, Klaus and Ingrid Eifert, came to the United States from Germany back in the 1960s, establishing their business in 1977. After coming over from Germany, the couple desired to continue their German food traditions, and they began with a deli and butcher shop, then opening their restaurant.

Though the restaurant has been closed since the pandemic, Gretchen said that Alpine Wurst hopes to reopen their restaurant this fall.

"We are in the middle of remodeling our building to be able to increase our production. We just started doing business with a really large company," she said. "They distribute all over the U.S., so in order to keep up with their demands and our own, we had to remodel and we're getting a new machine too."

One of their suppliers is Mosner Family Brands, The National Provisioner's Processor of the Year, she said.

Gretchen said that Alpine Wurst's most popular products include their Bratwursts, Krainerwurst, smoked pork chops, and variety pack, which includes four sausage types, allowing consumers to try a **variety of sausages**.

"We have one of the largest varieties of European German sausages that we still make," she said. "A lot of them are going on the wayside, and you can't find them like you used to be able to."

This family-owned business operates in around 400 stores spanning New York, Connecticut, Pennsylvania and New Jersey, Gretchen said.

Alpine Wurst operates three smokehouses onsite in Pennsylvania, but that number will be increasing soon.

"We will actually have four due to the large variety of products



most significant ones they have received.



Hiperbaric 135 High Pressure Processing (HPP) Unit. Source: Hiperbaric

"The judges came over from Germany and judged our products and so I feel like that is a huge honor," she said. "And my husband and his father went over to Frankfurt to receive their medals so that just made us feel like we really have a nice authentic German sausage in the United States."

Gretchen said that Alpine Wurst's products remind some customers of food from earlier in their lives.

"For some people they come into the deli and it reminds them of their German grandparents that used to serve it to them when they were kids and so it's really euphoric," she said.

Alpine Wurst not only keeps with their family's German traditions, but they recently launched an innovative new product, too.

"Actually, this past year my husband invented and patented something called Steacon ... so that's a new product, and that's been taking off," Gretchen said. She noted that this product launched in March 2023.

Looking to the future, Gretchen said that Alpine Wurst is expanding their facility. In a Q&A interview with Hiperbaric, Mark Eifert described more of Alpine Wurst's recent investments, which include a new packaging line and expanded refrigeration storage.

Mark also said that Alpine Wurst has invested in an HPP machine, bringing their food safety operations to their own facility. HPP — a form of food preservation that increases food safety — allows Alpine Wurst to save on transportation costs, expand distribution, and extend product shelf life for up to four months. Gretchen emphasized the fact that HPP allows Alpine Wurst to have a clean label, only including meat and spices in their end products.

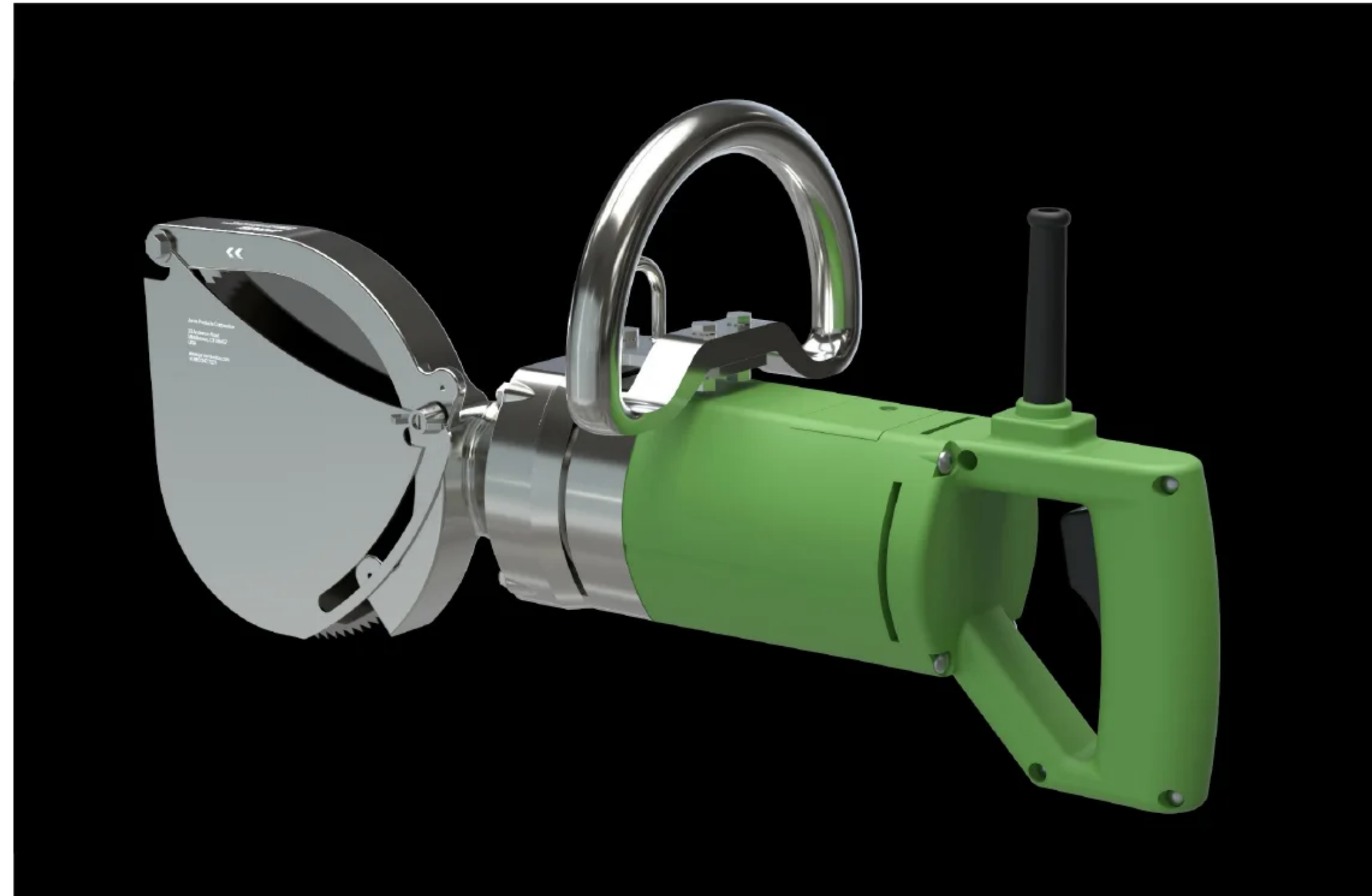
In a time of increasing consumer awareness and concern regarding labeling and food safety, Alpine Wurst is catering to this consumer demand through their HPP processing.

Though the business has been using HPP since 2015 through a third-party provider, Gretchen said Alpine Wurst has purchased their own HPP machine and will be providing tolling services to food manufacturers. In addition to their new role as an HPP toller, Mark said that Alpine Wurst is also becoming a co-packer for a large account.



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CRAFTING SIGNATURE CURED MEATS

BRYAN BUTLER OF AUSTIN -BASED BUTCHER SHOP SALT & TIME DISCUSSES HOW LEVERAGING IMAGINATION AND HANDS-ON TECHNIQUE INTERSECTS WITH THE ART OF NEW PRODUCT DEVELOPMENT.

BY FRED WILKINSON
CHIEF EDITOR

Bryan Butler is co-owner of Austin, Texas-based Salt & Time: Butcher Shop and Salumeria with Ben Runkle, who in 2010 began selling the first artisan dry-cured meats produced in Texas at Austin farmers markets. A mutual friend introduced him to Butler, and the two set out to open Austin's first butcher shop committed to sourcing whole animals directly from Texas ranchers. In February 2013, they opened Salt & Time in East Austin.

In this interview, Butler – a self-described “journeyman butcher” — shares his insights on how selecting the right animal plays a key role in crafting a cured meat product, along with how processors can play up regional ingredient differences to create a signature flavor experience. He also shares some thoughts on what ingredients/flavorings/techniques are trending for crafting smoked or cured meats, as well as some considerations for small processors that are looking to start smoking or curing their own meats.

“It’s really the artistic part of this type of craft,” Butler says regarding combining creativity – which can mean anything from incorporating ingredients as diverse as orange juice and coffee into a Cuban-inspired cured product or using goji (fermented rice) in aging steaks – with hands-on technique. “You have both the imagination and your creativity in your mind but also the actual doing with your hands. I feel it’s that two things coming together – the mental and the hands-on ability to actually produce — is really where you’ll find most creativity and the true art.”



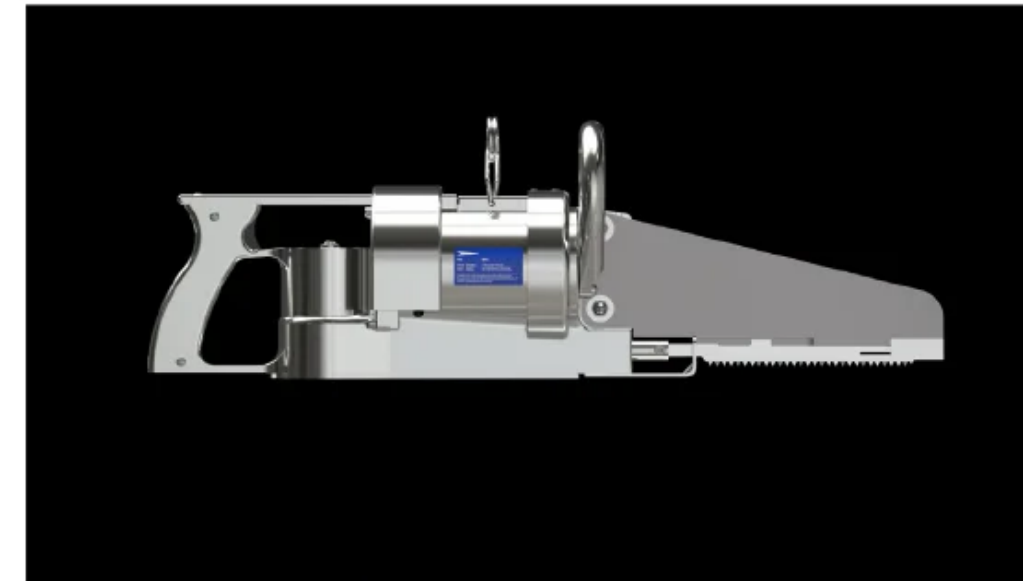
Photo courtesy Bryan Butler

The National Provisioner Podcast Episode 159: Bryan Butler of Salt & Time discusses smoked and cured meats

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FAMILY-OWNED OPERATIONS FOCUS ON LOCAL CUSTOMERS

HEDGEWOOD FARMS AND PARADISE MEATS DIVE INTO THEIR FAMILY’S OPERATIONS.

BY SAMMY BREDAR
ASSOCIATE EDITOR

Hedgewood Farms, a local farm based in Kansas, focuses on health for both the planet and their customers, according to Marla Biggs, one of the founders of this farm. Following their retirements from IT, Marla Biggs and her husband Brian wanted to begin working with beef, followed by poultry and pork. Marla said that her business has always had egg layers.

Hedgewood Farms, which is focused on local food, offers various purchasing options for consumers, including farmers markets, a web store and monthly subscribers, she said.

Since the Biggs’ farm cannot raise pastured poultry in the wintertime, the monthly subscription option allows Hedgewood Farms consumers peace of mind, knowing their product will be reserved for them ahead of time, Marla said. She said e-commerce sales allow Hedgewood Farms consistent sales in addition to the ability to plan inventory more effectively.



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Marla said Hedgewood Farms is focused on growing their subscriptions and social media.

“I think we also feel like because we have a pretty loyal base and a lot of people who are signed up for our monthly emails that if we can focus on trying to market more directly to people who already know who we are, that that can help us grow too,” she said.

This farm emphasizes the notion of you are what you eat. “We just want people to ask us questions to let us ... help educate them about what we’re doing,” Marla said. “We really believe food is medicine, that it is pay now or pay later.”

Another business that focuses on local food is Paradise Locker Meats, located in Trimble, Mo. Louis Fantasma, plant manager of Paradise Locker Meats, said his business primarily works with smaller family farms that raise heritage breeds of livestock.

“The majority of what we do is co-packing and private-labeling, but we also have ... a retail store, an online store, and then we do run and have a local pork program here that we market and sell,” Fantasma said. “We buy hogs from local farmers, that’s about 50 to 70 hogs per week currently that we’re doing from those farmers, and we market and sell all that meat.”

His business works with hogs, cattle, goats and sheep, Fantasma said.

Though their copacking clients have nationwide distribution, he noted that their pork program mostly stays local.

In contrast to Hedgewood Farms, Paradise Meats has seen slower growth with their online sales.

“I think we’re on track to maybe triple our online sales this year, but ... it’s a very small percentage of our total retail,” Fantasma said.

Paradise Meats is owned by a family that is quite involved with their state and national small meat plant associations: the Missouri Association of Meat Processors and the American Association of Meat Processors. Fantasma is an AAMP board member.

8 ACTS BEFORE CONGRESS THAT EVERY MEAT PROCESSOR SHOULD BE AWARE OF

Photo credit: Getty Images

BOTH THE HOUSE COMMITTEE ON AGRICULTURE AND THE SENATE COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY ARE REVIEWING INTRODUCTORY LEGISLATION THAT COULD POTENTIALLY IMPACT THE MEAT AND POULTRY INDUSTRY.

BY LACY BATES
SOUTHWEST MEAT ASSOCIATION

On Jan. 7, 2023, member-elects of the 118th Congress were sworn into the Senate and House of Representatives. Following the 2022 midterm elections, the Democratic Party retains control of the Senate, and Republicans reclaimed control of the House.

Both the House Committee on Agriculture lead by Chairman Rep. Glenn “GT” Thompson, R-Pa., and the Senate Committee on Agriculture, Nutrition and Forestry lead by Chairwoman Sen. Debbie Stabenow, D-Mich., have been diligently reviewing introductory legislation that could potentially impact the meat and poultry industry. Below are a few bills currently in rotation.

S 907 and HR 2814 Processing Revival and Intrastate Meat Exemption (PRIME) Act

S 907 sponsored by Sen. Angus King, I-Maine

HR 2814 sponsored by Rep. Thomas Massie, R-Ky.

To amend the Federal Meat Inspection Act to exempt from inspection the slaughter of animals and the preparation of carcasses conducted at a custom slaughter facility, and for other purposes.

Custom-exempt facilities are still subject to safety and cleanliness practices. However, these facilities are not required to have inspectors present at all times during hours of operation. If the PRIME Act is passed, custom exempt facilities would be allowed to sell uninspected products into retail markets within state boundaries.

2. S 846 and HR 1646 New Markets for State-Inspected Meat and Poultry Act of 2023

S 846 sponsored by Sen. Mike Rounds, R-S.D.

HR 1646 sponsored by Rep. Alexander Mooney, R-W. Va.

To amend the Federal Meat Inspection Act and the Poultry Products Inspection Act to allow the interstate sale of State-inspected meat and poultry, for other purposes.

The objective of the bill is to create new markets for very small and small state-inspected meat processing facilities across the state lines while maintaining a high level of food safety standards.

3. HR 1604 USA Beef Act

Sponsored by Rep. Matthew Rosendale, R-Mont.

To amend the Federal Meat Inspection Act to modify requirements for a meat food product of cattle to bear a "Product of U.S.A" label, and for other purposes.

This bill modifies label requirements for meat food products of cattle. Specifically, the bill prohibits the label of beef or any other meat food product of cattle from bearing the phrase product of U.S.A. unless such meat or meat food products is exclusively derived from one or more cattle born, raised, and slaughtered in the United States. This requirement does not apply to beef or other meat

Representatives (USTR) to develop a means of reinstating the requirements that comply with the rules of the World Trade Organization (WTO).

5. S 354 and HR 945 Strengthening Local Processing Act of 2023

S 354 backed by Sen. John Thune

HR 945 sponsored by Rep. Chellie Pingree, D-Maine

To amend the Poultry Products Inspection Act and the Federal Meat Inspection Act to support small and very small meat and poultry processing establishments, and for other purposes.

The goal of the bill is to allow very small and small meat packers and processors access to essential food safety regulations, enable more state inspected meat products to be sold interstate, and utilize federal dollars towards education, training, and technical assistance grants.

6. S 1512 DIRECT Act of 2023

Sponsored by Sen. Roger Marshall, R-Kan.

To amend the Federal Meat Inspection Act and the Poultry Products Inspection Act to allow for the interstate internet sales of certain State-inspected meat and poultry, and for other purposes.

The DIRECT Act would allow state-inspected meat products to be sold across state lines, in limited quantities and through e-commerce.

7. S 813 Expanding Local Meat Processing Act of 2023

Sponsored by Sen. Ben Ray Lujan, D-N.M.

To direct the Secretary of Agriculture to amend regulations to allow certain packers to have interest in market agencies, and for other purposes.

This bill directs the Department of Agriculture to revise its regulations to allow certain packers to hold ownership interest in, finance, or participate in the management or operation of a market agency selling livestock on a commission basis. The bill applies to packers that have a cumulative slaughter capacity of (1) less than 2,000 animals per day or 700,000 animals per year with respect to cattle or sheep, and (2) less than 10,000 animals per day or 3 million animals per year in respect to hogs.

8. S 346 Meat and Poultry Special Investigator Act of 2023

Sponsored by Sen. John Tester, D-Mont.

To establish the Office of Special Investigator for Competition Matters within the Department of Agriculture.

This bill establishes within the Department of Agriculture the Office of the Special Investigator for Competition Matters. Specifically, the office must use all available tools to investigate and prosecute violations of the Packers and Stockyards Act of 1921 by packers and live poultry dealers. Further, the bill grants the office the authority to bring any civil or administrative action authorized by that act against a packer or live poultry dealer.

Additionally, the office must:

- serve as a liaison to the Department of Justice and the Federal Trade Commission with respect to competition and trade practices in the food and agricultural sector,
- consult with the Department of Homeland Security on national security and critical infrastructure security in the food and agricultural sector,
- maintain a staff of attorneys and other professionals with appropriate expertise, and
- coordinate with the USDA Office of the General Counsel and the Packers and Stockyards Division of the Agricultural Marketing Service.

Similar bills have been introduced into Congress in previous years. It's critical to stay updated on the progression of these acts, as some could potentially change the course of the meat industry. In 2024, a total of 33 Senate and 435 House seats are up for election. Speak with your trade associations to help get your voice heard in the industry. Most importantly, don't forget to vote!

Lacy Bates is membership development manager for the Southwest Meat Association.

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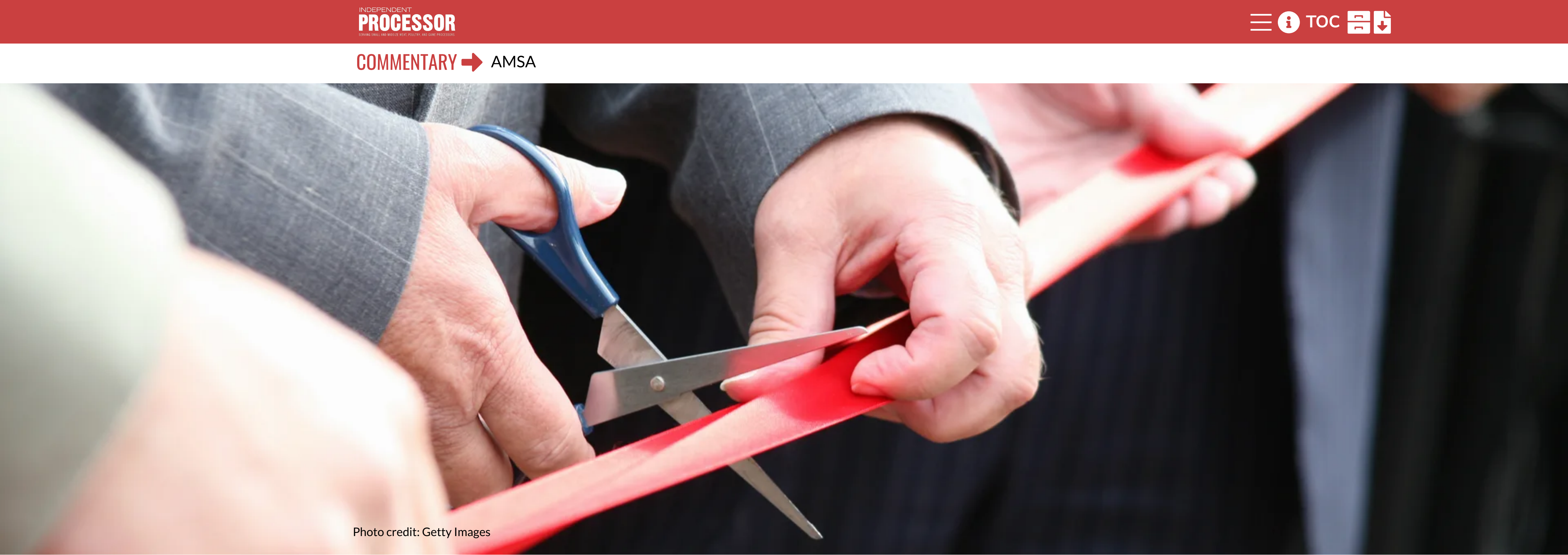


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NORTHWEST’S AGRICULTURAL LEARNING CENTER ALLOWS FOR NUMEROUS HANDS-ON LEARNING OPPORTUNITIES FOR UNDERGRADUATES STUDYING MEAT AND FOOD SCIENCE.

In 2021, Northwest Missouri State University celebrated the opening of their new Agricultural Learning Center (ALC), the culmination of the university’s multiyear “Forever Green” fundraising campaign. The \$11.4 million, 29,500-square-foot facility sits adjacent to the existing 448-acre R.T. Wright Farm. In addition to classrooms, laboratories, and study spaces, the facility also includes a certified commercial processing kitchen and meat fabrication laboratory. These spaces were designed with the aim of training students in how agricultural commodities are transformed into value-added food products.

To support these efforts, Dr. Jacob Tuell was hired as an Assistant Professor of Animal Science/Food Science beginning in the fall semester of 2022. Prior to joining, Tuell had received his Ph.D. from Purdue University focusing on fresh beef quality. In addition to Tuell, Dr. John Greathouse has been at the school since 2019 as an Associate Professor of Animal Science. At present, Greathouse teaches the school’s Beef Science and Swine Science courses, while Tuell teaches Meat Science and develops new offerings in food science, such as Animal Products.



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replacing conventional sodium nitrite with celery or beet powders.

The Agricultural Learning Center (ALC) at Northwest Missouri State University. Photo credits: Chandu Ravi Krishna, Northwest Missouri State University.

Students evaluating products as part of an activity on meat palatability and cookery. Photo credits: Lauren Adams, Northwest Missouri State University.

“In our facility, we have the equipment to do almost anything related to carcass fabrication and meat processing,” says Tuell. “The ALC does not have a harvest floor, but we are very fortunate to have several processors in Northwest Missouri that have been more than happy to host students for slaughter days. That has been one of the most encouraging aspects – they want us to bring as many students as possible, as often as possible.” In the Meat Science course offered at Northwest, students observe and participate in a federally inspected pork slaughter, fabricate those carcasses, and use that pork over the course of several weeks to make further processed products. Some of products have included injected pork loins and hams, dry-cured bacons, and fresh, smoked, and acidified sausages.

For the first time in Northwest’s history, students participated in the recent American Meat Science Association (AMSA) Reciprocal Meat Conference (RMC) held in St. Paul, MN. At the conference, Sadie Schafer, a Senior in Agricultural Education, was recognized as a recipient of the Undergraduate Scholastic Achievement Award. “RMC was a great opportunity for me both personally and professionally,” stated Schafer. “It exposed me to aspects of the meat industry I didn’t realize existed and provided me the opportunity to network with so many people, from professionals to students. Having that opportunity opened new doors for me and provided a new pathway that I am excited to further explore.”

Also hosted at Northwest are the Missouri FFA Northwest District Career Development Events for Meats Evaluation and Technology, Food Science and Technology, and Milk Quality and Products. In April 2023, NWMSU hosted over 1,100 students from 53 high schools in Northwest Missouri. Additional outreach efforts are being developed to expose students, educators, and the public to agricultural and food sciences.

In addition to Northwest’s investment in meat processing, plans are currently underway for the outfitting of a micro-creamery adjacent to the meat fabrication laboratory in the ALC. This space will allow for the safe processing of the raw fluid milk from the University’s Guernsey herd into various dairy products. It is expected that the new course offerings and profession-based learning opportunities made possible by these investments will supply the surrounding food industries with a steady stream of capable, well-trained graduates.

For more information about the School of Agricultural Sciences at Northwest Missouri State University, visit <https://www.nwmissouri.edu/ag/index.htm>. Feel free to address further questions to Dr. Jacob Tuell at jtuell@nwmissouri.edu.



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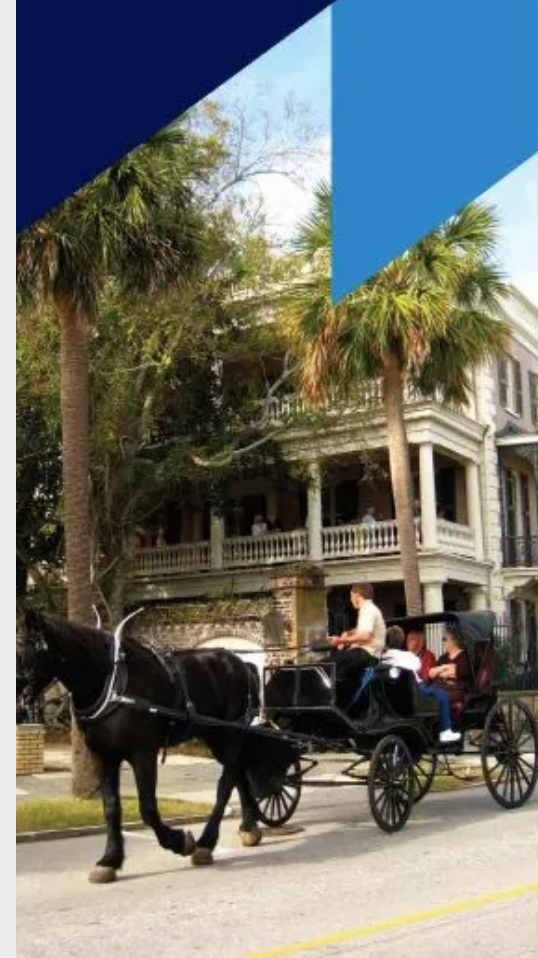
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