TPA NEWSLETTER

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Spring 2023

Hot topics around the TN poultry industry

Tennessee Governor Bill Lee has **proposed funding for 16 new positions within the state veterinarian's office** for the 2023-24 budget, as recommended by Commissioner of Agriculture Charlie Hatcher, DVM. TPA was very involved in initiating this request last fall and took the lead in gathering the support of industry partners from other commodity groups. TPA has also voiced very strong need for the department's salaries to be more competitive to aid in recruitment and retention, as there have been a number of existing positions vacant due to retirements, resignations, and leaves of absence. Keith Riley, complex manager for Tyson Foods in Union City, has also been very proactive in working closely with his district's legislators in asking for this support. Governor Lee's final budget has not been approved by the state legislature yet, so it is subject to change. Please ask your local representatives to support fully funding these positions without any cuts or reductions.

Bird flu is still a constant threat, and the state veterinarian's office is predicting it will remain that way for the rest of the year. Most everyone by now is aware of the farm that was confirmed positive for H5N1 in Bledsoe Co. on Nov. 15th involving 20,900 broiler breeders, followed by two organic/free-range egg farms in Weakley Co. before Christmas on Dec. 14 (37,900 layers) and Dec. 21 (28,800 layers), and then two broiler breeder farms in Weakley Co. with 19,000 and 43,600 birds, respectively, on Dec. 28. A broiler flock was the last commercial premises to test positive in TN on Jan. 20, involving 278,000 broilers (8 houses) in Weakley Co. Very concerningly, these broilers were 4 weeks old, making them the youngest birds to be infected by H5 to our knowledge. To date, nationally, over 58.59 million birds have been affected since this outbreak began earlier in 2022, involving 321 commercial flocks. 463 backyard flocks have been reported, as well. Dr. Samantha Beaty, TN State Veterinarian, reminds everyone to wear their boot covers properly and practice optimal biosecurity measures at all times. Outdoor poultry are still under advisement to be kept indoors.

Black vulture depredation sub-permits are now available for TN Farm Bureau members. These permits allow farmers to legally "take out" black vultures attacking livestock. Applicants must agree to follow all rules and regulations required by the US Fish & Wildlife Service. The use of black vulture carcasses as effigy is highly encouraged to deter the return of other vultures. Applications are available at <u>www.tnfarmbureau.org/blackvultures</u> or at any county Farm Bureau office after March 15, 2023.

Expanded sales and use tax exemptions for agriculture ("ag exemption") went into effect Jan. 1st for TN. Construction materials are now eligible for exemption, but only if directly purchased by the person named on the ag exemption certificate. Poultry equipment is also eligible if purchased directly by the grower named on their ag exemption certificate. Construction materials and equipment purchased by a builder and packaged into one loan are not eligible for tax exemption because it is then considered to be "real property". A recently recorded webinar explaining the expanded exemptions is posted <u>online</u>, and detailed information can be found on this <u>website</u>. Be advised to seek official rulings and advice from the TN Dept. of Revenue before making major purchasing decisions and setting up construction loans.

A new cost share program for agricultural businesses in TN has been announced by TDA. The FARM cost share program will fund projects that promote stabilizing and strengthening the supply chain to prevent future challenges. Up to \$1 million can be available at 50% cost share (or 75% if in a distressed county) if approved for funding. Details can be found at www.tn.gov/FARM, and the first application period ends March 31, 2023. \Box

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Editorial—"Not my brother's keeper", but should I be?

March 6, 2023 op-ed by Dale Barnett, TPA Executive Director

Anytime the public legitimately calls out our industry it is not a good day. Very little escapes the public these days, and others shouldn't have to be pointing out things that are not cool. Complaints, valid or not, make their way rather quickly to our state veterinarian's office, the commissioner's office, the offices of local county officials, and to TDEC for response. These departments and agencies then work together closely to figure out how to best proceed. Complaints do get sent to me and UT's Extension Specialists when something needs to be figured out and addressed.

The first thing to determine is whether the complaint is legitimate. When there are accompanying photos, the findings are indisputable. The TN Ag Crimes Unit is sent to the scene by TDA (TN Dept. of Ag) when illegal dumping and trespassing is involved. Animal health technicians (AHTs), regional staff veterinarians with the state vet's office, or UT extension specialists may be sent to premises to determine if there may be disease or animal welfare concerns. Next, and the more delicate part, is to determine who is responsible for what, and why was something irresponsible or accidental allowed to happen. This is where I am often expected to be involved by the "state", and it can become quite uncomfortable if I need to get involved in a grower's or company's affairs.

This past Saturday morning I awoke to a message sent the night before from our state veterinarian sharing a Facebook post that birds were littering the roadways through a town. This is never a good way to start any day. I promptly sent messages to the live production folks



Photo #1: Hens with ID bands and debris were illegally dumped by trespassers.

with houses in that region, figured out whose they were, and learned that a farm had unfortunately lost birds due to power outages and VSD (ventilation shutdown) during the recent storm. A third-party hauler was contracted to transport the birds to a landfill and was losing birds off the truck along the route. Over forty people had posted replies; some were laughing, some were in disgust. Could this have been prevented? Did the driver know they were losing birds and not care? Who was responsible for these birds until they were properly disposed of? Should a service tech have been sent to follow each truck to the landfill to make sure there were no bird and feather losses or leakages, and to make certain they went to the proper destination? The birds littering the roadway were picked up once it was reported, and then one of the managers ran the route behind the clean-up crew to ascertain none were missed.

Similar incidences have happened with offal trucks accidently dumping loads when taking off from a stoplight/sign because their tailgate wasn't properly fastened. Things get cleaned up, but often not before countless people drive by. Hopefully, security is additionally checking to see that tailgates are properly fastened before trucks leave the final checkpoint at all plants.

This past Monday morning, I was contacted first thing by our state veterinarian to

inform me of birds and debris that had been dumped way off of a county road (see

photo #1). The TN Ag Crimes Unit had already responded and was on the scene. The complex with houses in that area was contacted and assured everyone they would take care of proper disposal and figure out where the birds came from. (The hens were still banded...) Why would somebody do this? Not only is it illegal dumping and criminal trespassing, but the biosecurity risks are inexcusable. A grower's contract could be at risk if they are directly responsible. Was a third-party contractor by chance trusted to take these birds to a landfill and instead decided to pocket the tipping fee, so this is where they ended up? Did a landfill reject them? I'll never know, but rest assured the complex, Ag Crimes Unit and state vet now know. If anyone ever needs assistance properly disposing of mortalities, call me personally at 931-434-8045, and I'll help get it figured out. Shawn Hawkins and Tom Tabler at UT remain on standby to help with burial, composting, and landfilling assistance any day of the week as needed.

A week before this, I was contacted by the state vet's office regarding hatching eggs that had been dumped in Bledsoe State Forest (see photo #2). The complexes with houses in that area were contacted and asked to get to the bottom of this. The state's forestry department was called upon to bury the debris on site because of the biosecurity concerns and the fact that their origin was not readily known. I still do not know the origin of these eggs, but I bet that the Ag Crimes Unit and "the state" know. The same questions, possible scenarios, and comments above apply here. There's no need to repeat them. (*continued on page 11*)



Photo #2: Hatching egg waste from a breeder operation was illegally dumped in the Bledsoe State Forest.

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Tyson Foods Poultry Growers Awarded for Environmental Excellence

SPRINGDALE, Ark. – *February 13, 2023* – Two poultry growers for Tyson Foods were awarded the annual Family Farm Environmental Excellence Award by US Poultry during



the International Poultry Expo, part of the 2023 International Processing and Production Expo (IPPE).

The winners were chosen from five geographical regions throughout the US and included a State Poultry Association nomination. Winners representing Tyson Foods were Morrison Poultry out of Wingo, Kentucky, the Southeast Region winner, and Parham Pullets out of Dresden, Tennessee, the State Poultry Association winner [for the entire U.S.]

Both families won their awards for their dedication to managing their farms with environmentally responsible management practices, like litter utilization and management, soil enrichment practices, use of solar panels, innovative technology, and proper ventilation for air quality.

David Parham, owner of Parham Pullets, worked for the Tyson Foods Obion County Complex for many years before owning and operating his own farm in 2018. He started with four pullet barns and in 2021 expanded operations to six pullet barns. In addition to running the family farm, David and his family are very involved in the poultry industry. He's a board member at the Weakley County Farm Bureau and is part of the Tennessee Farm Bureau Federation, holding the chairman seat on the Poultry Advisory Committee, and a member of the Resolutions Committee.

"I take great pride in the work I do for Tyson Foods," said Parham. "We strive to do the best we can to represent the poultry industry and ensure we go above and beyond to implement sustainable and environmentally responsible practices on our farm that will carry on for generations."

The Morrison family has been in the poultry business for 24 years. They are members of the Kentucky Poultry Federation and are on Tyson Foods' Grower Advisory Council. They credit their success to the sustainable practices they implemented on their farm early on.

"I am representing Tyson Foods, and I take great pride in having a clean farm and raising the birds at a high standard," said Tim Morrison, owner of Morrison farms. "Respecting and taking care of the birds is our top priority, and that includes raising them on a farm that's sustainable for the future generations of my family."

Applicants were rated in several categories, including litter management, nutrient management planning, community involvement, wildlife enhancement techniques, innovative nutrient management techniques and participation in education or outreach programs. In selecting the national winners and finalists, applications were reviewed, and farm visits conducted, by a team of environmental professionals from universities, regulatory agencies and poultry associations.

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TN Legislative Updates

March 9, 2023 by TPA Executive Director Dale Barnett

TPA closely monitors proposed legislation in TN and works to support, oppose, and shape bills in the best interest of our industry. Bills are sometimes amended as they move through various committees in the House and the Senate, and sometimes a new amendment re-writes a bill. Legislation of interest this session includes, but is not limited to:

HB040/SB122. As introduced, prohibits foreign ownership of real property in this state by nonresident aliens and foreign entities if...

Comments: Legislation to restrict foreign landownership has been introduced over the past few years and we are certain that a bill will be passed this year. The challenge is to produce language that (most) everyone can agree on. TPA has been very instrumental and effective in preventing passage of previously proposed legislation that would completely restrict or greatly limit our allied partners that are highly valued, essential, and respected by our industry (such as Aviagen, Sanfer Alpes, LHoist, JBS/Pilgrims, etc.). At the request of TPA and Aviagen, this bill has been amended (re-written) to restrict only sanctioned countries. There is large agreement that we don't want unfriendly countries, or their residents, buying up farmland or establishing possible installations of concern within our state or country. This bill is being very closely monitored to ascertain that the final language stays favorable for the poultry industry and does not become too restrictive or onerous (for reporting and compliance). The <u>amendment</u> makes the bill. It has moved favorably through the House committees, and has been assigned to Senate committee.

<u>HB375/SB1397</u>. As introduced, requires the **Tennessee Duck River** Development Agency (DRA) to set a per thousand-gallon fee to charge participating entities for water withdrawals; makes other changes to the operation of the agency.

Comments: This bill is of great concern for the Tyson Shelbyville complex as the plant pulls 7-8 million gallons of water per week from the Duck River. The TN Chamber of Commerce, Tyson Foods and TPA have been very active in addressing this bill to protect the plant's riparian rights. This piece of legislation has been rolled a year, and we have asked to meet with the DRA to discuss their funding needs and offer possible assistance in pursuing grants and donations.

<u>SB369/HB042</u>. As introduced, specifies that <u>meat</u> <u>may</u> be labeled as being free of **mRNA vaccine** if the animals from which the meat was derived were not administered an mRNA vaccine; removes authorization for the commissioner of agriculture and the state veterinarian to order **vaccination** of livestock; specifies that there is no state legal requirement to vaccinate livestock.

Comments: While there are mRNA vaccines used in the red meat industry, I am told there are not any known to be currently/commonly used in poultry. Possible mandates for vaccinations of any kind to ever be used to address foreign animal disease (FADs) outbreaks and zoonotic concerns (animal-derived diseases infecting humans) would come from the federal level, including control of vaccine stockpiles. Therefore, this appears to be a pointless bill that is simply latching onto the anti-mRNA vaccine sentiment. Further, is best to leave anything related to food labeling, meat inspection, and FAD concerns to USDA and not try to impose or counter with state regulations. This bill has been assigned to the House Ag & Natural Resources Subcommittee.

<u>HB022/SB088</u>. As introduced, prohibits the manufacture, sale, or delivery, holding, or offering for sale of any food that contains a vaccine or vaccine material unless the food labeling contains a conspicuous notification of the presence of the vaccine or vaccine material in the food.

Comments: This bill was intending to prevent any possible use of human vaccines/materials that could end up in meat or animal products. TPA led in asking the HB sponsor to change the wording in this bill initially filed (that was subsequently pulled and rewritten) to make certain it did not include or imply the use of animal vaccines before moving forward through the committees. This bill has been taken off notice as TN Farm Bureau is asking the American Farm Bureau (AFBF) to address this concern at the federal level in keeping with USDA and FDA guidelines and regulations.

<u>HB0394/SB0123</u> as <u>amended (#4554)</u>. Designates the Commissioner of the Department of Agriculture as the state official responsible for cooperating with the United States Secretary of Agriculture (USDA) under the federal Meat Inspection Act. Requires the Commissioner of the Department of Agriculture (DOA) to cooperate with the USDA to **develop and administer a [state] meat inspection program** with requirements at least equal to those imposed by the federal Meat Inspection Act...

Comments: The TN Commissioner of Agriculture testified on March 1st before the Senate Ag Committee in favor of establishing a state meat inspection program. The proposed program excludes poultry. If passed, there will be a separate Meat Inspection Act and a Poultry Inspection Act. This bill has been referred to the Senate Finance, Ways and Means Committee and comes up next in the House Ag Subcommittee on March 7th. \$1.8 million dollars is being requested for the first year to fund this program, and the department is counting on receiving ~50% cost share from USDA to help fund this program after the first year. Because of possible food safety and recall concerns not overseen by USDA, it is preferred by our industry that poultry not be included in this bill. The <u>amendment</u> makes the bill.

<u>HB1292/SB343</u>. As introduced, designates concentrated animal feeding operations [**CAFOs**], as defined by federal regulations, as an industrial land use for **zoning** purposes.

Comments: The HB has been withdrawn but we are continuing to closely monitor this concern should it be reintroduced. TN Farm Bureau strongly opposed this bill, as did TPA.

<u>HB0631/SB0621</u>. As introduced, specifies that a person does not commit a Class C misdemeanor offense for **hunting over bait** so long as bait was not present while the person was hunting...

Comments: If passed, it would be possible to bait up until the time of actual hunting. The concern is that of enhanced opportunity for spread of diseases such as HPAI in wild turkeys (and subsequently through black vultures and wildlife feeding on sick and deceased birds), CWD in deer, ASF in wild hogs, etc. due to the increased congregation, comingling and feeding as result of baiting over the previous days and weeks. TPA would like to recognize Fentress Co. grower, Jim Bledsoe, for bringing this concern to our attention. The TWF (TN Wildlife Federation) aggressively opposed this bill, and it has been defeated.

<u>HB0285/SB0194</u>. As introduced, raises from a Class A misdemeanor to a Class E felony certain animal cruelty offenses involving a cock; requires a fine of not less than \$1,000 nor more than \$2,500 for the offense of being a spectator at a **cock fight**. (continued on page 11)





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2023 TPA EVENT CALENDAR

- May 23 Scholarship Fundraiser Golf Tournament Hermitage Golf Course, Old Hickory TN
- May 24 Scholarship Fundraiser Sporting Clays Shoot Cross Creek Clays, Palmyra TN
 - June 7 Service Tech Workshop Farm Bureau Expo Center, Lebanon TN
- August 18 & 19 Annual Meeting & Summer Getaway Gaylord Opryland Resort & Convention Center, Nashville TN
 - November (exact dates TBD) Grower Meetings Cleveland, TN and Martin, TN

NEWS FROM AROUND THE COMPLEXES

Dr. Danielle Shutes has been named center director of Tyson Learning Center. A partnership between Tyson Foods and KinderCare, the Tyson Learning Center is the new childcare facility that will support workers at Tyson Foods' Humboldt plant in Tennessee.

> Aviagen is proud of its five employees who were recognized with the IPPE "Young leaders under 30" award. These promising young Aviagen professionals, aged 21-29, were chosen for their leadership qualities and commitment to the industry. From left: Alexis Sims, Quality Assurance Coordinator; Lorretta Chappell, Audit Manager; Wesley Lewis, Farm Manager; Karri Morton, HR Project Coordinator; Lisa Tenny, Associate Veterinarian

ALLIED MEMBER NEWS

Alltech is pleased to announce that Dr. Roy Brister has joined the team as a Strategic Poultry Advisor. With nearly four

SCENIC CITY SOLAR

Scenic City Solar

Proxy-Clean Products is excited to announce the addition of Marty Carter to their team! Marty will assume the role of Regional Sales Mgr in the Southeast and Central United States and will focus on providing outstanding

customer service, training and support for clients across our entire product portfolio.

Cumberland, AGCO's poultry production equipment brand, is introducing Scout, the world's first ceiling-suspended robot system to continuously monitor broiler chickens and their poultry house environments to increase animal welfare as well as farm productivity.

BioSafe Systems celebrates 25 Years of Positive Change. For twenty-five years, BioSafe Systems' mission has been to manufacture effective chemistry that protects crops, people, and the planet.

Zee Company, a leader in the cleaning and sanitation business, has purchased DeLaval Cleaning Solutions (DCS), a business unit of DeLaval Inc. Zee Company, a member of the Vincit Group, specializes in sanitation and water treatment chemicals for the food and beverage sectors.

WELCOME NEW ALLIED MEMBERS



DATES TO REMEMBER

TPA SCHOLARSHIP APPLICATION DEADLINE

March 15, 2023

https://www.tnpoultry.org/ awardsPrograms/scholarships.cfm

> **REAP GRANT DEADLINE** March 31, 2023

usda.gov

TN FARM COST SHARE DEADLINE

March 31, 2023 www.tn.gov/farm











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Editorial—"Not my brother's keeper", but should I be? (continued from page 3)

And just last month, I was contacted by the department regarding mortalities (see photo #3) piled up near a road that were being landapplied by what turned out to be a newer litter contractor. The local news stations were all over this one, supported by lots of photos,



Photo # 3: Fully intact mortalities were being land-applied on row crop land. Scattered birds did get picked up later.

video, and complaints. Concerns expressed in the news reports included that these birds might have HPAI (bird flu) and were putting everyone at risk, which was not the case. Did the litter contractor not know, thinking it was okay, or possibly not care? Did an employee get sent to clean out the shed and was simply following orders? We did find out that the flock these came from had gone to processing 8 days earlier. Some of the mortalities, as can be seen in the photo, are still fully intact and some appear to have never been properly covered with litter to begin with, for they are white even 8 days later. Was the grower instructed to clean out their shed prior to receiving the next flock, assuming they'd be handled properly after leaving the farm? Lots of questions leave many of us dumbfounded. Who's responsible for their final destination and application - the litter contractor or the grower that released these mortalities? The "state" holds me, saying it's "my industry", and the integrator accountable for allowing this to happen. Not fun!

The incidences and stories are only mounting, and the public will continue to call out these situations. Many of these incidences are inexcusable. *They are all avoidable*. Follow your litter and your mortalities to their destination, for it is your responsibility in the eyes of the public and "the state" to see that things are handled properly. Send a service truck to follow mortalities to their final destination to make sure nothing falls or leaks out of the truck and that nothing is illegally disposed of. The poultry industry's image and our biosecurity are at stake. Check all trucks leaving your plants and farms to ascertain the tailgates are

latched and that whatever is being transported is properly covered and not leaking.

Lastly, if anybody feels they ever need to dump something, call me. We are, after all, our brother's keeper when it comes to the poultry industry if we expect to all stay in business, avoid negative press, and keep unwanted regulations at bay.

TN Legislative Updates (continued from page 7)

Due to biosecurity and animal welfare concerns, no further comment is needed! However, this HB was defeated (9:3) in the Criminal Justice Subcommittee because of the proposed felony status and greatly increased fines.

HB1054/SB0631 and HB018/SB091 concern wetlands determinations and regulations and are being monitored to make sure they do not affect existing farming operations or hinder future site selections for new poultry house construction.

HPAI

Europe harmonizes rules on avian flu vaccination for poultry

March 3, 2023 at WattAqNet.com by Jackie Linden

Over the past two weeks, the European Commission (EC) has harmonized the rules across the EU on the vaccination of animals against the most devastating diseases, including highly pathogenic avian influenza. <u>Click here for full article</u>

France considers vaccination to control avian flu

December 8, 2022 at WattAgNet.com by Jackie Linden

As part of a renewed approach to HPAI control, the agriculture ministry in France has announced it is developing a renewed action plan. <u>Click here for full article</u>

HPAI vaccination in US at least 2-3 years away, if ever

January 26, 2023 at <u>WattAgNet.com</u> by Terrence O'Keefe

Learn how vaccination might be used in the U.S. as part of a future HPAI stamping out program. Click here for full article

What HPAI vaccination in U.S. poultry could look like

February 13, 2023 at WattAgNet.com by Elizabeth Doughman

The current outbreak of highly pathogenic avian influenza (HPAI) has the U.S. poultry industry reconsidering opposition to vaccinations, but there are important considerations to think about first. <u>Click here for full article</u>

APHIS Announces Notice of Intent to Prepare an Environmental Impact Statement for Highly Pathogenic Avian Influenza Control in the United States

January 18, 2023 at <u>APHIS.USDA.gov</u>

The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) is announcing to the public the intent to prepare an environmental impact statement (EIS) to examine the potential environmental effects of the Agency's response activities to highly pathogenic avian influenza (HPAI) outbreaks in commercial and backyard poultry operations in the United States. APHIS is requesting public comment to further define the scope of the EIS, identify reasonable alternatives and potential issues, as well as relevant information, studies, and/or analyses that APHIS should consider in the EIS. <u>Click here for full article</u>

University of Illinois Scientists to Study Emerging Pathogens

January 27, 2023 at FeedStuffs.com

Aquatic birds, especially ducks, can carry influenza viruses but they don't often become severely ill, leading scientists to wonder how their immune systems act as a reservoir for a highly infectious and pathogenic virus, but the birds remain relatively unharmed. Additionally, could the immune system be engineered to thwart transmission to other animals and humans, ultimately preventing future pandemics? Four faculty at the University of Illinois Urbana-Champaign, plus a collaborator in Colorado, will attempt to answer these questions as part of an ambitious, three-year project funded by the Howard Hughes Medical Institute. <u>Click here for full article</u>

French government reports decline in avian flu on farms

February 7, 2023 at <u>WattAqNet.com</u> by Jackie Linden

In France, authorities report a slowing down in highly pathogenic avian influenza (HPAI) affecting the nation's poultry flocks. Click here for full article



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HPAI

Latin American human AI case a warning of worse to come?

February 20, 2023 at WattAgNet.com by Mark Clements

Avian influenza has infected a human in Latin America for the first time as ever more species appear susceptible to the virus. <u>Click here for</u> <u>full article</u>

WHOA statement on avian influenza and mammals

February 13, 2023 at WOAH.org

The current avian influenza situation has been raising concerns within the international community. Since October 2021, an unprecedented number of outbreaks has been reported in several regions of the world, reaching new geographical areas, and causing devastating impacts on animal health and welfare. The disease puts at risk global food security and the livelihoods of those who depend on poultry farming. It has also led to an alarming rate of wild bird die-offs and has affected other wildlife including sea and land mammals.

While it primarily affects poultry and wild birds, avian influenza can occasionally be transmitted to mammals, including humans. A rising number of H5N1 avian influenza cases has been reported in several mammalian animals both terrestrial and aquatic, causing morbidity and mortality. This sparks growing concern about the threat for the health of domestic and wild animals, biodiversity, and potentially for public health.

The current situation highlights the risk that H5N1 avian influenza may become better adapted to mammals, and spill over to humans and other animals. In addition, some mammals, such as mink, may act as mixing vessels for different influenza viruses, leading to the emergence of new strains and subtypes that could be more harmful to animals and/or humans. Recently reported infections in farmed mink are a concern because infections of large numbers of mammals kept in close proximity of each other exacerbate this risk. Several studies are currently on-going to further explore the virulence and transmissibility (including between mammals) of these viruses. <u>Click here for full statement</u>



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NAE producers need to focus on Eimeria oocysts for more effective control of coccidiosis and necrotic enteritis

December 6, 2022 at PoultryHealthToday.com by Don Waldrip, DVM

"No antibiotics ever" (NAE) producers must pick the right products against coccidiosis and necrotic enteritis if they are to cut losses, preserve what's available and avoid the need to make difficult ethical decisions regarding animal welfare. Don Waldrip, Zoetis senior technical service veterinarian, outlines the challenge and offers his advice when it comes to selecting control programs. <u>Click here for full</u> <u>article</u>

Low mycotoxin levels cause necrotic enteritis in poultry

February 17, 2023 at WattAgNet.com by Elizabeth Doughman

Mycotoxins in corn and corn byproducts – even at low levels – can damage the poultry gut and predispose chickens to necrotic enteritis, revealed new research from the U.S. Department of Agriculture (USDA) Agricultural Research Service's (ARS) National Poultry Research Center. <u>*Click here for full article*</u> \Box

Pre-harvest controls vital to tackling Salmonella prevalence

December 15, 2022 at PoultryHealthToday.com

Producers must voluntarily adopt pre-harvest interventions to help reduce the prevalence of Salmonella in US poultry products, according to experts. "I believe the FSIS is looking for the industry to adopt live prerequisite programs and plant programs," said Doug Fulnechek, DVM, Zoetis senior public health poultry veterinarian. "It is likely that this dual intervention idea is going to contribute to a producer's status in the industry." <u>*Click here for full article*</u>



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Researchers Explore Innovative Methods to Enhance Infectious Laryngotracheitis (ILT) Vaccines in Broiler Chickens

December 20, 2022 at USPOULTRY.org

USPOULTRY and the USPOULTRY Foundation announce the completion of a funded research project at North Carolina State University in which researchers explored innovative methods to enhance infectious laryngotracheitis (ILT) vaccines in broiler chickens. The research was made possible in part by Mountaire Corporation and proceeds from the International Poultry Expo, part of International Production & Processing Expo (IPPE). The research is part of the Association's comprehensive research program encompassing all phases of poultry and egg production and processing. <u>Click here for full article</u>

Recombinant ILT vaccines effective in broiler study

February 27, 2023 at WattAgNet.com by Elizabeth Doughman

New adjuvanted recombinant vaccine technology enhanced the protective immune response of broilers against infectious laryngotracheitis (ILT). <u>Click here for full article</u>

USPOULTRY Offers Biosecurity Plan Building and Training

March 3, 2023 at <u>USPOULTRY.org</u>

Biosecurity practices are proven, cost effective techniques to control and prevent the spread of diseases in poultry operations. It is of extreme importance to protect the health of our flocks in order to maintain and improve efficiencies and minimize economic losses due to disease outbreaks. USPOULTRY offers the following biosecurity tools: Infectious Disease Risk Management training resource, NPIP biosecurity principles template, NPIP biosecurity audit form template, and information on biosecurity principles. <u>Click here for full article</u>



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Live Production

Circulation fans reduce severity of footpad dermatitis

December 22, 2022 at PoultryHealthToday.com

Lesions created by footpad dermatitis are significantly reduced when broilers are raised in poultry houses with circulation fans, scientists have discovered. "In the houses without fans, we saw birds with a larger range of lesion sizes...and birds with 20% to 30% of their footpads covered in a lesion," Zoie McMillian from the University of Maryland told Poultry Health Today. "We didn't see anything like that in the houses with the circulation fans." <u>Click here for full article</u>

Automation Key to Ensuring Sanitation in 'No Antibiotics Ever' Systems

December 25, 2022 at PoultryHealthToday.com

Labor shortages in hatcheries mean that to ensure appropriate levels of sanitation in "no antibiotics ever" (NAE) production, wholesale automation is likely to be required, according to an industry expert. Automation began in hatcheries around 30 years ago, when labor started to become an issue, said Scott Martin, an independent poultry consultant. The labor shortfall is even more acute today, especially when considering newer methods of production such as NAE. <u>*Click here for full article*</u> \Box

Poultry welfare robot could augment human labor

February 24, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

Automating the poultry welfare and environmental monitoring process could be a solution to labor shortages, but it won't replace the need for human workers. Instead, it frees them up for other tasks. <u>Click here for full article</u>





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Live Production

Vegetative Buffers Yield Many Benefits for Poultry Farms

December 15, 2022 at PoultryHealthToday.com

Vegetative buffers offer aesthetic, poultry-management and disease-control benefits to producers, in addition to showing the farm's commitment to environmental stewardship, said Paul Patterson, PhD, former professor and Extension poultry specialist and now professor emeritus, Pennsylvania State University. <u>Click here for full article</u>

Gene-edited layer hen line could end male chick culls

December 16, 2022 at WattAqNet.com by Elizabeth Doughman

Gene-edited hens that lay eggs that only produce female chicks could help solve the male chick layer dilemma in the layer industry. <u>*Click*</u> <u>here for full article</u>

Shedding light on LED lamps and dimmers: They're not all a match

December 15, 2022 at PoultryHealthToday.com

Getting the correct lighting is important in poultry houses to help maximize the birds' genetic potential; however, too often there's a disconnect between the LED lamps and the dimmers in service. Tom Tabler, poultry specialist, University of Tennessee Extension, offered points to consider. <u>Click here for full article</u>

Airflow is key to better poultry transport temperatures

December 13, 2022 at WattAqNet.com by Elizabeth Doughman

The Cool Poultry Transport project aims to improve poultry welfare through better temperature control in the move between production and processing. <u>*Click here for full article*</u>



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Live Production

Dog drug could improve bed bug control in poultry houses

December 13, 2022 at WattAgNet.com by Elizabeth Doughman

Two drugs commonly used to treat fleas in dogs and other pets could help minimize or even prevent bed bug infestations in poultry houses, revealed research published in Parasites & Vectors. <u>Click here for full article</u>

Genome discovery could transform broiler breeding

January 17, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

The discovery of 4,300 previously undetected genes in the chicken genome could improve broiler breeding. Click here for full article

Audio-based monitoring can provide broiler health insights

February 1, 2023 at WattAgNet.com by Elizabeth Doughman

Audio analytics, sensors and other new tools assess bird behaviors and vocalizations to give early warning of potential broiler health and welfare issues. <u>Click here for full article</u>

Rain Or Drought? What to Expect from the Weather Following the End of La Niña?

February 7, 2023 at <u>AqWeb.com</u> by Clinton Griffiths

After three years of La-Niña-driven weather, scientists at the Climate Prediction Center (CPC) say the cold water along the equatorial Pacific is showing signs of warming. The CPC in January said there's now an 82% chance for ENSO-neutral by spring.

"It will take a period of a few months for the pattern to completely break down but in the process, we will have opportunities for breaks from the pattern that's been so prevailing," says Drew Lerner, president at World Weather Inc. "As La Niña diminishes, we will lose that persistent below-normal-precipitation bias." <u>Click here for full article</u>

Royal Pas Reform: Heat Treatment of Hatching Eggs During Storage

February 14, 2023 at PasReform.com by Gerd de Lange

The best hatch results and chick quality are achieved when eggs are set that have been correctly stored for three to five days. However, longer storage cannot always be avoided, and in fact is common practice in GPS hatcheries. Eggs that are stored for longer should be kept at a lower temperature and turned four to six times a day. An increasingly popular method for minimizing the negative impact of prolonged egg storage is to apply one or more heat treatments during the storage period, especially if the eggs are stored for more than seven days. *Click here for full article*





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NCC Releases Its Most Comprehensive Guidelines to Date for Well-Being of Broiler Chickens

January 10, 2023 at NationalChickenCouncil.org

Consumers want to be sure that all animals being raised for food are treated with respect and are properly cared for during their lives. The people and companies involved in raising chickens for food share the public's concern.

To assist chicken producers and processors in this effort, the National Chicken Council (NCC) in 1999 developed the NCC Broiler Welfare Guidelines and Audit Checklist which have been widely adopted by chicken farmers and processors to ensure all chickens are being properly cared for and treated humanely. Annually reviewed, the guidelines cover every phase of a chicken's life and offer the most up-to-date recommendations for the proper treatment and humane care of broiler chickens – those chickens raised for meat.

The 2023 <u>update of the NCC Broiler Welfare Guidelines</u> is more robust than ever before and incorporates new parameters to improve bird welfare.

The guidelines include:

- The identification of Key Welfare Indicators (KWIs) including paw/footpad health, gait scoring, effective processing parameters, and minimizing leg/wing injuries;
- Whistleblower protection;
- Additional focus on training programs for proper handling;
- More documentation and monitoring of various practices;
- A more streamlined auditing tool for ease of auditing;
- An increased focus on bird behavior, objective measures and welfare outcomes; and
- Updated scoring guides developed by the American Association of Avian Pathologists (AAAP).

NCC's guidelines were updated with assistance from an academic advisory panel consisting of poultry welfare experts and veterinarians from across the United States and were recently certified by the Professional Animal Auditor Certification Organization (PAACO), a leading authority on animal welfare auditing who provides high quality training and certification credentials for auditors and audits.

"With this certification, consumers and customers can feel confident that when buying and eating chicken, the birds were well-cared for and treated humanely," said Ashley Peterson, Ph.D., NCC senior vice president of scientific and regulatory affairs. "Our approach to the well-being of birds is to focus on objective measures and welfare outcomes throughout the birds' entire lives by carefully observing the chickens' behavior." NCC also plans to release an updated version of its Broiler-Breeder Welfare Guidelines by the end of 2023.



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 Vaddu S, Kataria J, Roma E.N., Moller A.E., Gouru A, Singh M, Thippareddi H. Impact of pH on efficacy of peraxyacetic acid against Salmonella. Campylabacter, and Escherichia coli an chicken wings. Poultry Science, Volume 100, Issue 1, Pages 256-262, ISSN 0032-5791, 2021 BioSafe Systems

Live Production

National Chicken Council Calls on FDA to Take Measures to Alleviate Egg Prices

Washington, D.C. (February 9, 2023) – The current outbreak of highly pathogenic avian influenza (HPAI or "bird flu") in the United States and resulting egg price increases have caused the chicken industry to closely examine a policy that forces the broiler industry (broilers are chickens raised for meat) to destroy perfectly nutritious and safe eggs. The National Chicken Council today <u>petitioned FDA</u> to reverse or modify this policy.

"In light of the pressure the current HPAI outbreak is putting on the nation's egg supply, FDA should revisit the use of safe, affordable, and nutritious surplus eggs available for use by egg breakers and their customers.

"Already faced with record egg prices, consumers might be hit even harder in their wallets as we head into the Easter season unless FDA provides us with a pathway to put these eggs to good use," noted Ashley Peterson, Ph.D., NCC senior vice president of scientific and regulatory affairs.

Background

Due to fluctuating market conditions, broiler hatcheries, in some instances, have more eggs on hand than what they want to hatch. These are known as "surplus" hatching eggs. Prior to 2009 when FDA implemented new rules, broiler producers were able to sell these surplus eggs to egg processors, known as "breakers," to be pasteurized (cooked) and used in egg products.

When eggs are delivered from a breeding farm to a broiler hatchery, they are stored in a room kept at 65°F before they are placed in incubators to be hatched. Research has shown this is the most ideal temperature to store these eggs prior to incubation – warmer temperatures would induce the incubation process too soon and colder temperatures comprise the viability of an eventual hatch. But the 2009 FDA rule, which was focused on the safety of "table eggs," or the eggs you buy in your grocery store, stated that all eggs intended to be sent to breaking facilities for eventual pasteurization must be kept at 45°F within 36 hours after being laid.

As a direct result of the 2009 FDA rule, broiler producers stopped selling surplus hatching eggs to egg breakers and instead are forced to render or throw these eggs away, often at an additional cost.

FDA never suggested these surplus broiler eggs were unsafe or that pasteurization was ineffective. The FDA rule was focused on table eggs, which are raw products and present a very different risk profile than pasteurized surplus broiler eggs. In fact, under FDA's rule, eggs that fail to meet certain requirements can be sent to egg breakers to be pasteurized, which is exactly what NCC is asking for now. NCC objected to FDA's rule when it was implemented on this and related grounds.

Egg products are defined by the U.S. Department of Agriculture (USDA) as "eggs that are removed from their shells for processing." The processing of egg products includes breaking eggs, filtering, mixing, stabilizing, blending, pasteurizing, cooling, freezing or drying, and packaging. This is done at USDA-inspected facilities under the oversight of federal inspectors. Liquid, frozen, and dried egg products are widely used by food manufacturers and the foodservice industry and as ingredients in items such as salad dressings, bread, cake mix, pasta, pancake mix, mayonnaise, ice cream, pie crusts, sauces, and many other everyday food products.

Because egg products are pasteurized, they are ensured a high level of food safety. A <u>2020 joint FDA/USDA risk assessment</u> confirmed these products present extremely low public risk due to the "extremely high pasteurization efficiency" of the egg breaking pasteurization process.

Current Situation

More than 58 million birds have been culled since HPAI was first detected in 2022, with the majority of them being egg-laying chickens.

These price spikes and supply disruptions are putting tremendous strain on the shell and egg products industries, and the impact has already begun to trickle down and impose hardships on restaurants, food manufacturers and consumers.

"With the recent risk assessment affirming their safety, we request FDA exercise its enforcement discretion to allow surplus broiler eggs to be sent for breaking without needing to meet the current refrigeration requirements," the petition urged.

Granting NCC's request would release almost 400 million safe and nutritious surplus eggs into the egg breaking supply each year, helping to ease costs and inflationary pressures.

"Despite sharp inflation and shocks to the egg supply, hundreds of millions of excess eggs are being wasted when they could be sold safely in the breaking market. Surplus hatching eggs should be made available for sale to egg breakers who can pasteurize them under FSIS jurisdiction into safe and wholesome egg products. This would reduce input costs for food made with egg products and alleviate prices for both table eggs and egg products."

The petition can be read in its entirety here. See more on egg pricing on pages 40-41.

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Live Production

Glowing Biomarker Could Simplify In Ovo Chick Sexing

February 20, 2023 at WattAgNet.com by Elizabeth Doughman

CRISPR-based gene editing technology could help breeders identify male layer chicks before hatch. "Our technology could solve the problem of male chick culling in the poultry industry before incubation," Yehuda Elram, co-founder and CEO, eggXYt, said. "Male offspring will carry a detectable fluorescent marker and be sorted out before incubation. <u>*Click here for full article*</u>

Researchers' Success in Replicating Poultry Disease Key to Prevention

February 20, 2023 at ThePoultrySite.com by University of Saskatchewan

Researchers at the University of Saskatchewan's Western College of Veterinary Medicine are working to develop a vaccine for necrotic enteritis, a devastating disease that causes enormous financial losses for poultry producers. Necrotic enteritis, an intestinal disease caused by the bacteria Clostridium perfringens, primarily affects broiler chickens (poultry raised for meat) at a young age when their immune systems are immature. The disease causes the death of their intestinal lining and severely compromises their health. <u>Click here for full</u> <u>article</u>

Enzymes for the biodetoxification of DON

February 27, 2023 at <u>AllAboutFeed.com</u> by Nadine Abraham

The safe and efficient removal of the mycotoxin deoxynivalenol is a pressing issue in terms of ensuring food safety. Enzymes, isolated from microorganisms with DON detoxification activity, offer promising alternatives to alleviate this problem. However, some key challenges must be addressed before employing these enzymes for industrial applications.

Deoxynivalenol (DON) is a toxic secondary metabolite produced by filamentous fungi of the genus Fusarium. DON contamination continues to plague agricultural commodities globally. In fact, in a 10-year survey of global mycotoxin contaminations in grain samples, DON appeared to be the leading mycotoxin contaminant alongside other Fusarium mycotoxins such as fumonisins and zearalenone. Due to climate change, abiotic stresses such as CO2, temperature and humidity may provide a conducive environment for Fusarium growth, thus further exacerbating contamination of food by DON. <u>Click here for full article</u>



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Editorial - 2021 FDA Antimicrobial Use Report

January 8, 2022 at Chick-News.com by Simon M. Shane

In late December 2022, the FDA published a summary report on veterinary antibiotic use entitled Antimicrobials Sold or Distributed in 2021 for Use in Food-Producing Animals. The report should be considered in light of Guidance for Industry Documents #2 & #3 and #152 which classified antibiotic classes as either medically important for human therapy or not medically important including ionophore anti-bacterials. It is also noted that in 2017 veterinary feed directives (VFDs) or prescriptions were required for food additive or water administered antibiotics, respectively. The executive summary of the report demonstrated a decrease of 33 percent in antibiotic use from 2012 through 2021 but a decrease of less than one percent from 2020 through 2021 suggesting a plateau. With specific reference to 2021, for all food species tetracyclines accounted for 35 percent, penicillins for 6 percent, macrolides for 5 percent, sulfas and aminoglycosides 3 percent each, lincosamides for 2%, cephalosporins for 0.2 percent. Fluoroquinolones use accounted for less than 0.2 percent consistent with the two-decade ban on this class of antibiotics.

In evaluating medically important antibiotic drugs approved for use in food-producing animals actively marketed in 2021, a total of 5,115,111 kg was used in cattle, swine, chicken and turkey production combined. The "other" category for nonfood-producing animals and minor food-producing species including aquaculture were subtracted from the total of 5,989,721 kg. Chicken (presumed to be broilers) consumed 2.6 percent of the total non-medically important drugs amounting to 158,342 kg. Turkeys consumed 11.0 percent of the antibiotics used in food-producing animal. The use of antibiotics in egg production is negligible and for the purposes of the FDA report was in all probability included in the "chicken" category.

To determine relative use of antibiotics in chickens and turkeys and the difference between broilers and turkeys during 2016 and 2021, the respective use rates expressed as mg per kg RTC were calculated for the two segments of the poultry meat industry. For 'chickens', (presumably broilers) each kg of RTC product used the equivalent of 0.028g (28mg) of antibiotic in 2016. Use per kg of RTC declined by 72.1 percent to 0.0078g (7.8mg) in 2021. This is consistent with the general perception that antibiotic use in the broiler industry has declined sharply over the past five years due to the introduction of 'no antibiotic ever' production and a general disinclination to administer antibiotics. For turkeys, the consumption of antibiotic expressed per unit of mass was 0.278 g (278mg) per kg in 2016 with a 6.1 percent reduction to 0.261g (261mg) per kg RTC in 2021. Between 2018 and 2021 the ratio of antibiotic use between turkey and chicken production widened from 9.9 to 33.4 suggesting less progress in eliminating antibiotics for the turkey segment of the U.S. poultry industry. (continued on next page)

Editorial - 2021 FDA Antimicrobial Use Report (continued from previous page)

The broiler industry has managed to eliminate antibiotics by firstly recognizing that a number of growth-stimulating products were basically ineffective. The industry has made strides in controlling immunosuppressive infections including Marek's disease and infectious bursal disease contributing to enhanced immune response to vaccines and improved livability and growth rate. More effective vaccination against respiratory infections including infectious bronchitis and laryngotracheitis has reduced the severity of viral respiratory infections and consequential secondary bacterial infections. This is coupled with a greater awareness of the need for appropriate ventilation and control of litter moisture reducing both respiratory stress and intestinal infections resulting in reduced use of antibiotics to control E. coli and clostridial enterotoxemia. Regrettably less progress has been made in application of alternative modalities to antibiotics in the turkey industry for both prevention and therapy.

	Year 2016	Year 2021	% Difference
Chicken RTC (million m. tons)	18.498	20.409	+10.4
Antibiotic* Use (kg)3	508,800	158,342	-68.9
Chicken Use per kg RTC	28 mg	7.8 mg	-72.1
Turkey RTC (million m. tons)	2.718	2.526	-7.1
Antibiotic* Use (kg)3	756,620	659,431	-12.8
Turkey Use per kg RTC	278 mg	261 mg	-1.1
Ratio Turkey to Chicken use	9.9	33.4	+237

*non-medically significant, active product (excludes ionophore anticoccidials)

Have modern broilers lost ability to adjust feed intake?

February 22, 2023 at FeedStrategy.com by Ioannis Mavromichalis

In one study, when birds were offered feeds with more or less energy compared with a normal diet, they did not eat less or more feed, respectively.

In 1947, using rats, and later pigs and poultry, it was discovered and verified that monogastric animals "eat for calories." That is, they regulate their feed intake to ensure they consume the right amount of energy to cover their daily requirements. So, with low-energy feeds, they will increase their feed intake, whereas with high-energy feeds, they will decrease their feed intake. (continued on next page)

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Have modern broilers lost ability to adjust feed intake? (continued from previous page)

This was true for moderate deviations from what would be considered a normal feed with an acceptable energy concentration. For example, dilution of energy by 50% in one experiment, caused broilers to increase their feed intake only by 25%, leaving them thus undernourished. Equally, when feeds are grossly concentrated in energy, birds will over-consume energy. This results from an inability to fill their gut with enough feed, in the first case, or the need to have sufficient gut fill, in the second one. Nevertheless, such extremes are not practical, and most feed professionals make only moderate adjustments to energy (and consequently to all other nutrients as a constant ratio to energy) based on cost per unit of energy.

It has been speculated for some time, based on a relatively recent trial (2019), that modern genetics of broilers may have lost their ability to compensate up or down when it comes to even moderate changes to dietary energy concentration. In the table below, it is clear that when birds were offered feeds with more or less energy compared with a normal diet, they did not eat less or more feed, respectively. They ate the same amount of feed and that markedly affected their performance and carcass characteristics. This is disconcerting because genetic progress in broilers has not stopped. If that trend remains, then nutrition professionals will lose a considerable tool in feed formulation practice. Similar trials with pigs verify this trend, but to a lesser extent – perhaps because of lower genetic selection pressure.

Effects of reducing energy content of the diet on broilers

	DIET		
	Low energy	Normal energy	High energy
Metabolizable energy (MJ/kg)	12.1	13.4	14.6
Metabolizable energy {% high energy}	83	92	100
Intake 0-21 days (g/bird/day)	47	45	46
Average daily gain 0-21 (g/bird/day)	35	39	42
Feed conversion ratio (g feed/g gain)	1.3	1.2	1.1
Abdominal fat (% body weight)	1.05	1.28	1.33

Source: Hu X, Wang Y, Sheikhahmadi A, Xianlei L, Buyse J, Lin H and Song Z, 2019 Journal of Animal Science, 97: 4488

A 2019 study looked at the effects of reducing the energy content of the diet of

the feed intake, growth and body composition of broilers selected for high growth rates. (McDonald et al., 2022 Animal Nutrition. Eighth edition, Pearson, IJk)

The question then becomes one of what we should do when faced with such a development. Clearly, each farm needs to know how its chosen genetic stock perform under different feeding regimes and also define their performance goals (growth versus efficiency, or carcass characteristics, or a profit index based on these and other measures). Luckily, the concentration in genetic houses has limited the availability of genetic choices, and this might be enough of an incentive to large poultry integrators to run their own in-house experiments. Using generalized data should not be considered as the final decision-making point, but only the very first step in establishing custom-made nutrition programs. \square

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Propane futures are currently not showing much variation for 2023

The Mont Belvieu Propane **Spot Price** on Feb. 27, 2022, was **\$0.830/gal.** The lowest spot price experienced this year occurred on Jan. 6 at \$0.728. The highest spot price was experienced on Jan. 27 when it reached \$0.938. Propane futures are projecting prices to stay fairly stable at \$0.90 this spring and summer, with a slight increase later into the year.

Allowing for an average of \$0.60 per gallon for tariffs, handling and delivery to most areas, **the average current retail prices can be expected to be roughly \$1.43/gal.** Larger accounts can often negotiate a lower price agreement by as much as \$0.05/gal., or more. To follow Mont Belvieu spot pricing go to <u>https://www.eia.gov/dnav/pet/hist/eer epllpa pf4 y44mb dpgD.htm</u>. TPA's allied member propane companies welcome discussing this with you to obtain best pricing and service. Their contact information is listed at the back of this newsletter in the allied membership listings.

Quotes for Mont Belvieu **propane futures** are projecting to stay in the \$0.90 range through Aug. and then then slowly increase to \$0.93 in Dec. of 2023. The average retail price is therefore projected to be at its lowest later this spring, at a \$0.89 spot price. To follow the futures trading for spot pricing go to <u>https://www.cmegroup.com/trading/energy/petrochemicals/mont-belvieu-propane-5-decimals-swap.html#</u>.

For **REAP grant funding** for energy retrofit projects go to <u>https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency</u>. The next **application deadline is March 31, 2023**. Visit your local NRCS office for more information.

For an update on current **FMCSA emergency declarations, HOS waivers, and exemptions** go to <u>https://www.fmcsa.dot.gov/emergency-declarations</u>. **Update of concern**: The current Biden administration is considering reducing the maximum length of all emergency declarations by FMCSA and governors to being only 5 days. This is of great concern during times of natural disasters, extreme weather conditions, pandemics, and major supply chain disruptions.



2023 TPA SCHOLARSHIP FUNDRAISERS GOLF SCRAMBLE & SPORTING CLAYS SHOOT

Golf Scramble

Hermitage Golf Course 3939 Old Hickory Blvd. Old Hickory, TN Tuesday, May 23, 2023

- Registration begins at 7 am CT
 - Lunch provided

• Door prizes appreciated!! Registration: \$150 per person

Sporting Clays Shoot

Cross Creek Clays 3975 Jarman Hollow Rd. Palmyra, TN Wednesday, May 24, 2023

- Registration begins at 9 am CT
 Lunch provided
 - Door prizes appreciated!!

Registration: \$150 per person (includes 5 ducks) PLEASE BRING YOUR OWN SHELLS!!

SPONSORSHIP OPPORTUNITIES

(includes recognition and signage for both golf and shooting) Diamond Plus - \$2500** Diamond - \$1500** Platinum - \$1000**

Gold ~ \$750 Silver ~ \$500 Shooting Station/Golf Hole ~ \$200 **As a sponsor of \$1000 or more, a scholarship can be presented in your company's name.

2022 Scholarship Presentations



Since 2014, TPA has awarded nearly\$190,000 in scholarships
All proceeds benefit TNPoultry Association scholarship program
Registration forms available at www.tnpoultry.org

Meat / Processing / Food Safety

CDC: Frozen chicken in air fryer increases Salmonella risk

December 2, 2022 at WattAgNet.com by Elizabeth Doughman

Cooking breaded frozen chicken products in the air fryer, microwave or toaster oven won't protect consumers against foodborne illnesses like Salmonella, the Centers for Disease Control and Prevention (CDC) warned. <u>Click here for full article</u>

New NCC resources focus on food safety for broilers

February 21, 2023 at WattAgNet.com by Elizabeth Doughman

Two new food safety resources from the National Chicken Council (NCC) highlight the broiler industry's commitment to food safety from farm to fork. Click here for full article

Top 10 poultry consumer trends of 2022

December 27, 2022 at <u>WattAgNet.com</u> by Elizabeth Doughman

Here are the 10 most-read consumer trends articles of 2022. Click here for full article

Machine Vision Could Help Woody Breast Detection in Poultry

January 30, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

Imaging technology could better identify woody breast in fillets during poultry processing, improving detection and reducing financial losses caused by the breast meat myopathy. "The fundamental idea of the machine vision technology to assist with the detection of the woody breast condition in poultry breast meat is to measure the physical bending of the fillet," said Dr. Seung-Chul Yoon, a research electronics engineer in the Quality and Safety Assessment Research Unit at the USDA Agricultural Research Service's (ARS) U.S. National Poultry Research Center. <u>Click here for full article</u>



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Researchers find new antioxidants in beef, pork and chicken

February 22, 2023 at BeefMagazine.com

Imidazole dipeptides, which are abundant in meat and fish, are substances produced in the bodies of various animals, including humans, and have been reported to be effective in relieving fatigue and preventing dementia. However, the physiological mechanism by which IDPs exhibit these activities had not been determined previously.

A research team, led by Professor Hideshi Ihara from the Osaka Metropolitan University Graduate School of Science, was the first to discover 2-oxo-imidazole-containing dipeptides —which have one more oxygen atom than normal IDPs—and found that they are the most common variety of IDPs derivatives in the body. The researchers also found that they have remarkably high antioxidant activity.

In their study, the researchers established a method for selective and highly sensitive detection of five types of 2-oxo-IDPs using mass spectrometry, which enables quantitative detection of trace 2-oxo-IDPs in living organisms. Using this method, they revealed for the first time that beef, pork, chicken and other meats contain antioxidants, not only IDPs but a variety of different 2-oxo-IDPs. Their findings were published in Antioxidants. <u>Click here for full</u> <u>article</u>

Visit our website at <u>www.tnpoultry.org</u>

Is electrostatic the future of poultry pathogen reduction?

February 25, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

An approach that harnesses electrostatic technology to apply antimicrobial cleaners, disinfectants and sanitizers to poultry carcasses could help improve food safety and sustainability in the processing plant. <u>Click here for full article</u>

Poultry Set to Take Nearly Half of the Global Meat Market by 2031

December 19, 2022 at PoultryWorld.net by Tony Mcdougal

Poultry will continue to be the fastest growing meat over the next decade and by 2031 will take 47% of the market, according to the latest OECD/FAO Agricultural Outlook. The long-term shift towards poultry will continue to strengthen, in part due to a preference for white meat among high-income countries. This is because poultry is seen as easy to cook, healthier and it is perceived as a better choice. In middle and low-income countries, poultry is seen as a cheaper alternative to other meats. As a result, the Outlook predicts that protein availability from poultry will rise by 16% by 2031 and by then will constitute 47% of the protein consumed from meat sources, followed by pork, lamb and beef. *Click here for full article*

Recycled overwrap poultry tray could replace foam packaging

December 21, 2022 at WattAqNet.com by Elizabeth Doughman

A rolled-edge recyclable overwrap tray made from the same material as recycled water bottles could provide a sustainable alternative to foam packaging in poultry processing, packaging and retail. <u>Click here for full article</u>

Microbead spray could target poultry pathogens

December 27, 2022 at WattAqNet.com by Elizabeth Doughman

An antibacterial microbead spray that harnesses the power of bacteriophages could help improve food safety in poultry production, processing and packaging. <u>Click here for full article</u>

Automation Becoming Essential

January 13, 2023 at MeatPoultry.com by Bob Sims

With very few exceptions, meat and poultry processors today will cite labor as the number one challenge in their operations. Although the difficulty acquiring and retaining labor positions in the plant started before the COVID-19 outbreak, the pandemic magnified the problem. Poultry processors use automation in many instances to combat the labor issue, packaging being one of the first and easiest places to start. <u>Click here for full article</u>

Examine pros and cons before adopting automation

January 24, 2023 at WattAgNet.com by Roy Graber

The poultry industry is increasingly embracing automation but before making the change, companies need to look at the pros and cons. <u>Click here for full article</u>

How to cut poultry processing plants' saleable meat losses

January 20, 2023 at <u>WATTPoultryInternational-digital.com</u> by Eduardo Cervantes Lopez

One of the poultry processing industry's major challenges is how to minimize losses of saleable product. Click here for full article

Air-Chilled Poultry Has Benefits for Both Processors and Consumers

January 27, 2023 at SupermarketPerimeter.com by Bob Sims

Air chilling freshly processed poultry carcasses continues to gain popularity in the United States. European processors have used air chilling as an option to cool fresh chicken carcasses for over 50 years, but in the United States air chilling began in the early 2000s. Before then, and still in many US facilities today, processors immerse fresh carcasses in cold, chlorinated water to chill them. <u>Click here for full article</u>

Supply chain transparency matters to most meat consumers

February 8, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

Two-thirds of consumers ranked transparency in the animal protein supply chain as extremely or very important, according to a survey from Merck Animal Health. <u>Click here for full article</u>

Poultry processing robotics research to improve grip design

February 14, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

A four-year research project aims to develop a better robotic system for rehanging poultry carcasses after chilling in processing plants. <u>Click here for full article</u>

'No nitrite-added' cured meats are in the works

February 21, 2023 at MorningAgClips.com by Kay Ledbetter

Imagine your favorite cured meat like beef jerky, pepperoni or bacon without any added sodium nitrite from any source currently necessary for color and shelf life. Wes Osburn, Ph.D., is doing exactly that. <u>Click here for full article</u>

Meat/Alt Protein News

Greenleaf partnership could improve meat alternative texture

December 27, 2022 at WattAqNet.com by Elizabeth Doughman

Greenleaf Foods, the plant-based subsidiary of Maple Leaf Foods, will partner with The Better Meat Co. to advance alternative protein innovation. <u>Click here for full article</u>

The truth about cultivated meat and why you should care

December 1, 2022 at FeedStrategy.com by Jackie Roembke

Learn how cultivated meat technology may realistically challenge traditional animal meat production sooner than you think. <u>https://www.fda.gov/media/163026/download</u> <u>Click here for full article</u>

GOOD Meat to produce lab-grown meat without animal serum

February , 2023 at WattAgNet.com by Emma Cottrell

The producer of the world's first cultivated, or lab-grown, chicken, GOOD Meat, has received regulatory approval from the Singapore Food Agency for its animal serum-free cultivated meat. <u>*Click here for full article*</u>

Food tech company 'disrupts' cultivated meat production

March 2.2023 at MeatPoultry.com by Rachael Oatman

HAIFA, ISRAEL — Food technology company Ever After Foods — formerly known as Plurinuva — launched a patented bioreactor platform that produces cultivated meat.

The company said its platform paves the way for scalable and cost-effective meat cultivation.



Photo Source: Ever After Foods

"Current cultivated meat companies all use very similar methods for growing cells and face insurmountable challenges when it comes to scaling production in a cost-effective manner," said Eyal Rosenthal, Ever After Foods' chief executive officer. "To achieve cost parity, their methods will demand huge bioreactors of more than 10,000 liters, which are infeasible for use with animal cells.

"Ever After Foods' disruptive technology enables significantly higher cultivated meat production capacity, with efficiencies that lower resources and costs. We can currently produce more than 10 kg of cultivated meat mass with just a 35-liter bioreactor and have a proven path to scale and reach price parity."

The company said its proprietary bioreactor technology provides a 700% increase in

productivity compared to other cultivated meat technology platforms and requires significantly lower capital expenditures and production costs.

The cultivated meat is composed of the same elements found in conventional meat, including fat and muscle cells and the extra cellular matrix (ECM) proteins.

"This is not a fad. Addressing food security, health, sustainability and animal-welfare concerns, cultivated meat is the future of food," Rosenthal said. "Our new name, logo and branding underscore our ambition to deliver the future of meat, sustainably, ever after."

What the FDA Evaluated During the First Completed Pre-Market Consultation



The complex process of taking a small number of live cells from livestock, poultry, seafood, or other animal species and growing them in a controlled environment to create a food can be broadly summarized in a few steps. Below is an example of what we reviewed at each production step during the firm's pre-market consultation:

Firm's Production Steps

What the FDA Reviewed



different chicken tissues.



Cell Line and Cell Bank

Cells from the sample are screened, adapted to culture conditions, and grown to make a "bank" of cells that are frozen and stored for later use.



Transfer and Growth

A small number of cells from the cell bank are placed in tightly controlled environments (sealed vessels) that support growth and multiplication by supplying nutrients and other factors. Cells are transferred to larger vessels over time to reach the amount of material needed for food production.

Differentiation

After the cells have multiplied many times over, into billions or trillions of cells, the environment is changed in ways that allow the cells to assume muscle-specific characteristics.



Harvest the material to prepare further using conventional food processing and packaging methods.

How the cells are isolated, including:

- How cells are taken from an animal
- How cells are confirmed to be from the right animal species
- How cell lines are selected
- What measures are taken to ensure the cells are free of contaminants, including microbes or viruses

How the cell bank is made, including:

- How the cells are adapted to culture and can sustain growth
- The firm's quality control measures for the cell bank, including checking the cell identity, checking for contaminants including microbes and viruses, and measuring cell growth and behavior

Substances used in the culture process as the cells multiply and differentiate:

- Nutrients for cells to grow
- Growth factors (substances found in animals that send signals for cells to grow or change)
- Substances that manage properties of the medium such as pH or foaming

Consideration of potential risk factors in the production process, including:

- The firm's assessment of hazards at each production step
- How the firm plans to apply food safety control measures based on its assessment
- How the firm monitors the growth and health of the cell cultures during production

Product that is harvested for use in conventional food processing, including:

- Identity of the cell material
- Makeup of the cell material
- Potential residues from the culture process
- Specifications for food contaminants such as lead, cadmium, mercury, arsenic, and pathogens

During the harvest process, when the firm begins removing the chicken cells from the sealed vessels, the FDA and USDA coordinate regulatory oversight as jurisdiction transitions to USDA. USDA oversees the conventional processing and packaging of the food material, as well as labeling of products made from this material.



In addition to the voluntary pre-market consultation, the FDA's inspectors have been on site at the firm's facility where cells are cultured, grown, and harvested for an inspection. The FDA intends to conduct another inspection after commercial distribution starts. These inspections will help ensure that potential risks are being managed and that the food exiting the culture process is safe and not adulterated within the meaning of the Federal Food, Drug & Cosmetic Act and the FDA's regulations. Get more information about Human Foods Made with Cultured Animal Cells at https://www.fda.gov/food/foodingredients-packaging/food-made-cultured-animal-cells















EPA to Tighten Limits on Meat Plant Effluent

March 3, 2023 at MeatingPlace.com

The U.S. Environmental Protection Agency (EPA) announced its intent to update water pollution control standards for slaughterhouses and animal rendering facilities by August 2025. The EPA's proposed consent decree emerges from a lawsuit filed by environmental groups late last year. The plaintiffs alleged that the EPA failed to revise effluent limits and pretreatments standards for meat and poultry plants after the agency determined revisions were appropriate. <u>*Click here for full article*</u>

EPA to study concentrated animal feeding operations

January 25, 2023 at <u>BeefMagazine.com</u> by Joshua Baethge

The EPA will soon begin studying how concentrated animal feeding operations (CAFOs) impact water quality. The results of that study could lead to more stringent regulations for livestock operations. <u>Click here for full article</u>

Why You Need to Pay Attention Now to EPA's Proposed Rodenticide Mitigation Measures

February 9, 2023 at Drovers.com by Jennifer Shike

EPA is proposing changes to rodenticides that would result in canceling products and uses, adding more requirements to labels, and reclassifying some products to restricted use pesticides. Here's what you need to know. <u>*Click here for full article</u>*</u>

EPA Issues New Waters of the United States (WOTUS) Rule Before Supreme Court Can Reach Decision

December 20, 2022 at NFIB.com

The EPA issued a new Waters of the United States (WOTUS) rule, ignoring NFIBs call for the agency to wait while "Sackett v. EPA" is pending at the U.S. Supreme Court. This rule further complicates compliance standards and increases uncertainty for small businesses as they wait to hear from the Supreme Court. <u>Click here for full article</u>

Ag Groups Sue to Stop WOTUS Rule

January 19, 2023 at *FeedStuffs.com* by Joshua Baethge

Representatives from 17 industries have filed a lawsuit attempting to overturn the Biden administration's new Waters of the United States rule. Among the agriculture groups listed as plaintiffs are the American Farm Bureau Federation, the Matagorda County Farm Bureau, the National Cattleman's Beef Association, the National Corn Growers Association, the Pork Producers Council, the Texas Farm Bureau, and the U.S. Poultry & Egg Association. <u>Click here for full article</u>

First hearing set for challenge to new WOTUS rule by major private landowners

February 3, 2023 at FoodSafetyNews.com by Dan Flynn

April 5 is the date of the first hearing for the many parties involved in a federal court challenge to a final rule posted this past December from EPA and the Army Corps of Engineers defining the "waters of the United States" (WOTUS) under the 1972 Clean Water Act.

Private landowners represented by several organizations filed a 42-page complaint on Jan. 18 in U.S. District Court for the Southern District of Texas in Galveston. It says the Environmental protection Agency and the Army Corps over-stepped their authority and should have waited for a Supreme Court ruling on the issue. <u>Click here for full article</u>

Republicans Call for New WOTUS Rules to Be Repealed

February 3, 2023 at FeedStuffs.com by Joshua Baethge

Republican lawmakers in the House and Senate announced nearly identical Congressional Review Act resolutions formally opposing the Biden administration's Waters of the United States rule. Sen. Shelley Capito, R-W. Va., the Ranking Member of the Environment and Public Works Committee, introduced a resolution of disapproval bill on behalf of all 48 Senate Republicans. <u>Click here for full article</u>

FSIS Expanding Generic Label Approval

January 20, 2023 at <u>fsis.usda.gov</u>

FSIS is amending its regulations to expand generic label approval to certain categories of meat, poultry and egg product labeling products starting March 19. FSIS is also announcing the availability of the revised FSIS Guideline for Label Approval for the types of labels that must be submitted to FSIS for approval. The final rule, which published on Jan. 18, also responds to comments received on the September 2020 proposal. <u>*Click here for full article*</u>

EPA Announces Plans for Wastewater Regulations and Studies, Including Limits for PFAS, New Study for Nutrients

January 20, 2023 at <u>epa.gov</u>

The U.S. Environmental Protection Agency (EPA) released Effluent Guidelines Program Plan 15 (Plan 15), which lays out how the Agency will work to protect the nation's waterways by following the science and the Clean Water Act to develop technology-based pollution limits and studies on wastewater discharges from industrial sources.

This Plan focuses on evaluating the extent and nature of both nutrient and per- and polyfluoroalkyl substances (PFAS) discharges. Plan 15 further advances EPA's commitment in the PFAS Strategic Roadmap to restrict PFAS discharges from industrial sources through a multi-faceted Effluent Limitations Guidelines program.

"For 50 years, EPA has implemented the Clean Water Act to protect our nation's waters that are essential to healthy communities. This Effluent Guidelines Program Plan represents a critical next step to tackle pollutants like PFAS and nutrients at the source, before they can harm our health and the environment," said Assistant Administrator for Water Radhika Fox. "With this action, EPA continues to demonstrate our commitment to using the best available data and treatment technologies to reduce harmful industrial pollutants."

Plan 15 announces EPA's determination that revised effluent limitations guidelines and pretreatment standards (ELGs) are warranted for reducing PFAS in leachate discharges from landfills. The Agency made this decision after concluding a detailed study that was discussed in Preliminary Effluent Guidelines Program Plan 15.

The Agency is also announcing several new and expanded studies as part of today's action, including:

- an expansion of the ongoing study of PFAS discharges from textile manufacturers;
- a new study of publicly owned treatment works (POTW) influents to characterize the PFAS concentrations from industrial dischargers to POTWs and inform implementation of pretreatment programs to address them; and
- a new study on concentrated animal feeding operations (CAFOs) to make an informed, reasoned decision on whether to undertake rulemaking to revise the ELGs for CAFOs.

View ELG Program Plan 15

Background

ELGs are national, technology-based regulations developed to control industrial wastewater discharges to surface waters and into POTWs. ELGs are intended to represent the greatest pollutant reductions through technology that are economically achievable for an industry. EPA prepares ELG Program Plans after public review and comment on a preliminary plan, pursuant to Clean Water Act (CWA) section 304(m). ELG plans provide a description of the Agency's annual review of ELGs and pretreatment standards, consistent with the CWA. Based on these reviews, EPA develops plans to identify any new or existing industrial categories selected for ELG or pretreatment standards rulemakings and to provide a schedule for such rulemakings. In addition, ELG plans present any new or existing categories of industry selected for further review and analysis.

NCC calls for withdrawal of latest Packers and Stockyards Act rule

January 20, 2023 from the NCC

The National Chicken Council (NCC) in comments submitted this week urged the U.S. Department of Agriculture's Agricultural Marketing Service (AMS) to withdraw its latest costly, misguided Packers and Stockyards Act proposed rule, entitled "Inclusive Competition and Market Integrity Under the Packers and Stockyards Act."

"We are deeply concerned that the Proposed Rule would impose substantial costs, expose live poultry dealers to significant legal and compliance risks, and undermine the successful and mutually profitable poultry grower contracting system," said NCC President Mike Brown. "The last thing AMS should be doing is pushing increased regulations, red tape and costs onto businesses at a time of record inflation and input costs, threatening food security and potentially raising grocery bills even further for Americans. As such, we are urging the agency to withdraw this proposal."

In the <u>comments</u>, NCC identified several areas where the Proposed Rule is legally deficient, is unconstitutionally vague and argued that an insufficient administrative record fails to support it. The preamble to the rule is littered with vague allusions to potentially violative conduct and generalized complaints lacking sufficient detail for meaningful evaluation. "Unsubstantiated complaints lodged in 2010 cannot meaningfully support a 2022 rulemaking under vastly different economic conditions," Brown noted.

Perhaps the greatest potential impact of this rule moving forward is the significant costs it would impose on society. "AMS appears to have given no thought to its economic impact analysis, drastically underestimating the costs of the Proposed Rule at every possible opportunity," Brown continued. (continued on next page)

NCC calls for withdrawal of latest Packers and Stockyards Act rule (continued from previous page)

AMS predicts the Proposed Rule would impose costs of only \$504 per live poultry dealer in the first year, and costs of about half that amount in subsequent years. "This simply defies belief," Brown added. "The cost of the filing cabinets needed to hold the voluminous records that would be required would exceed that much, not to mention the extensive recordkeeping programs, computer systems, labor costs, legal fees and litigation. In reality, the cost of compliance together with anticipated litigation will undoubtedly result in costs of over \$100 million, orders of magnitude greater than AMS predicts."

NCC also highlighted the fact that AMS fails to consider costs to growers, who as part of the same economic system would inevitably bear some of the compliance costs. New growers would face fewer opportunities for new entrants, and it would be more difficult to reward top-performing growers. Consumers, too, would suffer costs in the form of a less efficient chicken production system, potentially leading to higher costs at the supermarket and restaurants.

"These proposals were determined to be poor policy ideas under the Obama administration – and continue to be so today," Brown concluded.

NCC's extensive comments can be found in their entirety <u>here</u>. \Box

Petition asks Vilsack to strengthen Packers & Stockyards Act

January 31, 2023 at MeatPoultry.com by Rachael Oatman

Food & Water Watch spearheaded a coalition formed with 23 other groups to urge Agriculture Secretary Tom Vilsack to strengthen the Packers & Stockyards Act (P&S Act). Sent on Jan. 30, the letter addresses past grievances with the US Department of Agriculture's governance of the law, and it requests that the agency issue firm rules that strengthen and clarify the act. <u>Click here for full article</u>

Legislation reintroduced to protect meat processing workers

February 6, 2023 at MeatPoultry.com by Rachael Oatman

On Feb. 2, Senator Cory Booker (D-NJ) and Representative Ro Khanna (D-CA) reintroduced the Protecting America's Meatpacking Workers Act.

The legislation provides additional protection for US meatpacking workers through strengthened safety measures and improved workplace conditions in meat and poultry processing plants. Systematic reforms are also included in this bill, such as a fair market that is more accessible to independent producers.

The United Food and Commercial Workers International Union (UFCW), which represents 1.3 million workers, expressed its support of the act.

"Meatpacking and food processing workers risked their health and safety as essential workers every single day during the height of the pandemic to ensure American families had food on the table," said Marc Perrone, UFCW international president. "While our union was able to fight for and secure many protections for our members, every single worker in this industry deserves the essential protections that meat and poultry processing companies are still failing to provide.

"This critically important legislation will be instrumental in protecting workers, holding the industry accountable and making our food system more resilient. Americans should be able to trust that the food they put on the table comes from American workers who are protected on the job."

The Protecting America's Meatpacking Workers Act is part of a package introduced by Booker. Other bills include the Farm System Reform Act, Industrial Agriculture Accountability Act and Protect America's Children from Toxic Pesticides Act. All the bills focus on reforming the US agriculture sector.

"For years I have worked to elevate the voices of farmers, workers and consumers in urban and rural communities, sounding the alarm about our broken food system and calling for change," Booker said. "The COVID-19 pandemic, the war in Ukraine and recent climate change-related disasters have highlighted how fragile our current food system is. So, I'm excited to re-introduce a package of bills that would help mold our food system into one that is more competitive, resilient, humane, and just for everyone."

Vilsack Foreshadows Formal Action Against Mexico

February 28, 2023 at FeedStuffs.com by Joshua Baethge

Agriculture Secretary Tom Vilsack says the United States will soon act against Mexico in the long-running dispute over genetically modified corn. During a press conference following his keynote address at the USDA Agricultural Outlook Forum, Vilsack said that a formal call for a dispute settlement panel under the terms of the United States-Mexico-Canada Act is coming. <u>Click here for full article</u>

Cage-free housing conversion research released

February 2023 at UnitedEgg.com

With funding from FMI Foundation, UEP, and UEA, a team of researchers from Michigan State University, in collaboration with Kansas State University and Purdue University, released a study on conventional to cage-free housing conversion. The study investigated challenges and opportunities associated with the transition to cage-free housing, which included survey and interview data from egg producers, egg consumers, and economic modeling of the industry. The study cited challenges relating to costs and construction, a continuing lack of consumer demand, and growing concern about unintended consequences related to operations and financing.

"This research confirms what egg producers have known – cage-free transitions are extremely expensive, take years to implement and must be done in active partnership with their retail customers," said Chad Gregory, President and CEO, UEP. "Further, the study sheds light on one of the greatest challenges – that grocery shoppers do not understand transition deadlines and largely are unwilling to pay the premiums necessary to make the transitions cost-effective for egg farmers and their retail customers."

View the executive summary and find a full report of the study here.

Growth of cage-free eggs may be paused while producers deal with shortages and high prices

January 13, 2023 at FoodSafetyNews.com by Dan Flynn

The B2B WATT Poultry is out with its 2023 special issue of the egg industry. It is a source of hard-to-find market data about the egg industry, just as high egg prices and shortages capture consumer attention. Information about the largest egg producers and predictions about cages in the future highlight the report. <u>Click here for full article</u>

Letter From the Editor: Naming rights come with some responsibility

February 27, 2023 at FoodSafetyNews.com by Dan Flynn

— OPINION — The Food and Drug Administration big bosses last week said the agency is going to permit various milk alternatives to carry milk labeling just like the liquid cows produce. The really good part of the FDA announcement was its "guidance" for consumers who get confused to check the nutrition labels when making their purchasing decisions. <u>*Click here for full article*</u>

Neither consumer groups nor industry representatives believe FDA plan will work

March 1, 2023 FoodSafetyNews.com by Coral Beach

Leaders from a group of consumer and industry organizations were unanimous yesterday in condemning FDA Commissioner Robert Califf for his plan to restructure the agency. To a person, the leaders said they were disappointed with Califf's plan, which he said a month ago and again yesterday would include the creation of an "empowered" deputy commissioner for foods. <u>Click here for full article</u>

USDA Proposes New Requirements for the "Product of USA" Label Claim

March 6, 2023 at <u>FSIS.USDA.gov</u>

The U.S. Department of Agriculture (USDA) today released a proposed rule with new regulatory requirements to better align the voluntary "Product of USA" label claim with consumer understanding of what the claim means. The proposed rule allows the voluntary "Product of USA" or "Made in the USA" label claim to be used on meat, poultry and egg products only when they are derived from animals born, raised, slaughtered and processed in the United States. <u>*Click here for full article*</u>

Bronaugh, Yiannas to leave posts at USDA, FDA

January 27, 2023 at <u>FeedStrategy.com</u> by Ann Reus

USDA Deputy Secretary Jewel Bronaugh and Frank Yiannas, deputy commissioner for the FDA's Office of Food Policy and Response, have submitted their resignations. <u>Click here for full article</u>

Rabobank: 4 poultry industry predictions for 2023

December 20, 2022 at WattAqNet.com by Emma Cottrell

While Rabobank is optimistic regarding the health of the poultry industry in 2023, the Netherlands-based bank expects the challenges of 2022 to carry into the new year like highly pathogenic avian influenza (HPAI), economic volatility, geopolitical concerns and, of course, COVID-19. <u>Click here for full article</u>



The Bottom Line on U.S. Egg Pricing

Getting the facts straight about how the commodity market operates

The United States egg industry is experiencing the worst outbreak of highly pathogenic avian influenza (HPAI) in history. Since February 2022, there have been 313 cases of HPAI in commercial poultry flocks. The number of hens lost to this disease is enormous – 44.3 million layers and pullets as of mid-January 2023. In addition to this catastrophic loss, wholesale egg prices – those received by farmers – rose sharply in 2022 due to rapidly increasing production costs, demand imbalances and other factors.

The good news is: wholesale prices have already dropped 30-50% from their highest price in 2022, and they have been steadily *decreasing* since late December 2022, when peak holiday demand eased. While higher than typical egg prices are frustrating for everyone in the supply chain, America's egg farmers are doing all they can to keep prices low and help educate egg lovers about how egg prices are set.

Egg Farmers Do Not Set Wholesale Egg Prices

- Farmers don't set prices consumers pay in grocery stores, and they do not set the prices they receive.
- Eggs are an agricultural commodity, and like producers of any commodity, egg farmers are price-takers, not price-makers.
- The price of eggs moves daily in response to supply and demand.
 - Daily market prices are reported by both the independent price-reporting firm Urner Barry¹ and the USDA Agricultural Marketing Service.
- Egg production is not a highly concentrated industry, and no single egg producer has monopoly pricing power. In fact, no producer accounts for more than 15% of the U.S. flock.²

Farmers' Production Costs Have Risen (Just Like Other Sectors of the Economy)

- The cost of producing eggs has risen substantially.³
 - Diesel and gasoline prices rose 51.8% and 31.4% from 2021, impacting the transportation of eggs to grocery stores.
 - In 2022, the average price of corn and soybeans increased 18.9% and 13%; both commodities that are used for chicken feed.
 - Labor costs rose significantly, with farm workers' wages rising on average 6.8% year-to-date.

¹ The Urner Barry Index methodology can be found at

https://www.urnerbarry.com/pdf/methodology/ub_methodology_shell_eggs_2020.pdf

² Hendrix Genetics, July 14, 2022, Top U.S. Egg Producer Rankings of 2022, <u>https://www.hendrix-isa.com/en/news/top-us-egg-producer-ranking-of-2022/</u>

³ Urner Barry, January 20, 2023, UB Consulting: Why the Rise in Egg Prices?, <u>https://www.urnerbarry.com/News/1244188/UB-Consulting-Why-the-Rise-in-Egg-</u>

<u>Prices?utm_campaign=COMTELL&%3Butm_content=161884658&%3Butm_medium=social&%3Butm_source=linkedin&</u> %3Bhss_channel=lcp-332275

HPAI Losses and Price Increases

There is a clear relationship between the HPAI outbreaks – which are lasting longer and involving more birds than the previous outbreaks in 2015 – and egg prices. *America's egg farmers are diligent about the health of their flocks and the safety of the nation's egg supply*. Biosecurity is a priority for American farmers every day, not just during a disease outbreak.

- HPAI unavoidably causes a temporary reduction in the overall U.S. hen flock size due to the requirements imposed by the USDA on all farms experiencing disease outbreaks.
 - When there are less hens in the United States, there are fewer eggs, which in turn causes prices to rise if demand remains strong.
- The number of hens depopulated during the current HPAI outbreak is very large 44.3 million layers and pullets as of mid-January 2023.
- Producers have been able to repopulate many of the farms affected by HPAI, but repopulation is not an instant process. On average, flocks are repopulated within 3-4 months.

Summary

Affordable food matters to everyone, and American egg farmers are doing everything they can to keep costs down and egg cases stocked. While it's true both retail and wholesale egg prices rose sharply last year, wholesale prices have already dropped 30-50% from their highs in 2022. Additionally, egg farmers do not set egg prices; price increases in 2022 were due to reduced egg supply, general inflation, and steady and peak periods of demand.



Survey: Eating less meat low priority for most Americans

February 9, 2023 at <u>BeefMagazine.com</u>

Eating more fruits and vegetables and less sugar ranked highly as potential changes to eating behaviors related to New Year's resolutions, according to the January Consumer Food Insights Report. This month's report also summarizes and discusses the state of the survey indicators after one full year of data collection.



Beliefs like "agriculture is a significant contributor to climate change" are held by a minority, according to latest Consumer Food Insights Report.

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

"People are generally knowledgeable about the actions needed to improve health and want to pursue them – such as increasing fruits and vegetables and exercising more," said Jayson Lusk, the department head and Distinguished Professor of Agricultural Economics at Purdue who leads the center. "However, they don't necessarily want to give up on taste and indulgences. For example, eating less meat or drinking less alcohol is low on the list of priorities of most Americans."



(continued on next page)

Survey: Eating less meat low priority for most Americans (continued from previous page)

As the Consumer Food Insights Report has noted previously, food spending is up significantly -19% - from a year ago. Grocery spending, however, has remained effectively flat for the past six months.

"It appears that people have already cut back and found deals to help stop their food spending from continually rising," Lusk said. "If food inflation does not come down significantly this year, consumers might not have much room to maneuver their budgets further."

Those surveyed estimated that current inflation is up more than 1 percentage point from last month. But the survey results show that people seem to remain optimistic about inflation declining dramatically over the next year.

Additional key results include:

- Food insecurity is unchanged from January 2022, but a decline in households visiting food pantries raises further questions.
- Americans report being neither risk averse nor risk loving but are slightly more cautious with regards to their health.
- Trust in the USDA and US Department of Health and Human Services' Dietary Guidelines for Americans is at an all-time high as its advisory committee prepares to discuss 2025 guidelines.
- A large majority of people want to increase funding and technical support to agricultural producers.



Despite price increases, the rate of national food insecurity again shows surprising consistency from last January, said Sam Polzin, a food and agriculture survey scientist for the center and co-author of the report.

"In fact, we have even seen a continued decline in the share of households who say they have received free food from a pantry this month," Polzin said. "Given the current high-price environment, it is hard to believe that fewer people need help from the charitable food system. We might ask if there are fewer charitable food resources available now or if people are having a harder time accessing them."

Overall, the sustainable food purchasing index continues to show consistency. But as the "taste" and "economic" aspects of the index remain strong, the ongoing weakness of the environment and social indicators is discouraging from the sustainability perspective, Polzin noted.

Behaviors like "choosing plant-based proteins over animal proteins" are rare. Similarly, beliefs like "agriculture is a significant contributor to climate change" are held by a minority.

"We might say that food system sustainability does not concern consumers as much as some advocates might want it. We saw little change on this front in our survey over the course of 2022," Polzin said.

As for risk-taking, Americans generally consider themselves to be middle-of-the road in daily life, scoring 5.4 on a 0 to 10 (risk averse to risk loving) scale. They rated their risk tolerance regarding their health generally about one point lower, 4.3. But when it comes to food consumption, their risk tolerance is 5.2 for "food consumed at home," and 5.1 for "away from home."

Lusk further discusses the report in his blog.

Accidental Chicken Farmers

Spring 2023 in Tennessee Home & Farm by Amy Beckham

If we go back in time to Dorothy's red slippers and Scarlett O'Hara's "Gone with the Wind," we'll arrive at the same year the McClary family farm was established in the Patty Community of Polk County. It was 1939 and gas was only 10 cents a gallon, but the country was still recovering from the Great Depression. And for Andrew McClary, it was the perfect time to purchase the family farm.





Photos by Nathan Lambrecht

"My grandad was a big cattle and mule dealer, and it just so happened a mule barn had just been built on this farm," said Tim McClary. "He was attracted to the farm because of his mule business, but unfortunately, he nor my grandmother didn't live too many years after he moved the family here."

The early passing of Tim's grandparents meant his father, Hugh, or H.M. as he went by, stepped up as the eldest to help raise his siblings. Eventually he had children of his own, and for his son, Tim, there was no question where he wanted to spend his time.

"I always enjoyed tagging along to the barn," said Tim. "My uncle Gene farmed and I helped him a lot when I was in high school – he was an inspiration to me to farm, and I've pretty much always known this is what I've wanted to do."

Tim says the farm was run-down from the early days of when the farm had cotton in the hill country of that part of the state, but the family all worked hard on it and started mainly running beef cattle before starting to explore the poultry industry.

"I like to say we stumbled into this poultry business," said Tim. "I went to rent some empty chicken houses, and my plan was to hang tobacco in them. Well, one thing led to another and before we knew it, we had broiler chickens."

From that decision in 1997, the farm now has four chicken houses and hasn't looked back. And all the while these farm decisions were taking place through the years, Tim's personal life was also changing. In 1983, he married Marcia, and they welcomed two daughters, Laura and Kaitlyn, into farm life.

"Marcia grew up in this rural area, but didn't really have a farm background, so this was pretty much a culture shock for her," said Tim. "She spent 33 years teaching kindergarten, and we couldn't be more proud of our two daughters who followed in her footsteps and are both teaching as well."

The entire family lives on the farm currently, which is a blessing for Tim and Marcia. With now two grandsons, Conor and Knox, they are hopeful for what the future holds.

"We are at the point where we are really starting to think about the future of the farm," said Tim. "I'd love for my grandchildren to have the opportunity to farm and live here if it interests them."

When he was around his grandson's age, Tim can remember his father attending Farm Bureau meetings on a regular basis. Really, he can't remember life without Farm Bureau, and because of it, has found it vitally important to be involved himself – serving on the county board of directors since the 1980s and currently serving as county president.

"Being able to come together with other folks who share the same views and issues and having the chance to exchange those ideas is so important. The Farm Bureau has always been solid and respected not just in the legislature, but across the entire state and nation, and I'm proud to be a part of it," said Tim. \Box

Commodity Report

March 2, 2022 at Egg-News.com by Dr. Simon M. Shane

At 15H00 on March 2nd CME corn was down 3.5 percent to 638 cents per bushel from the previous week. Corn price was influenced by static ethanol production and lower export demand. Soybeans were 1.2 percent lower in price to 1,520 cents per bushel for March delivery compared to the previous week. Soybean meal was 1.0 percent down to \$489 per ton for March delivery. The market has now accepted projections of crop size and higher stocks as documented in the February 23rd USDA Grains and Oilseeds Outlook. Commodity exports were not adversely influenced by a moderate rise in the Dollar Index to 104.5. Relatively lower orders and shipments of corn to China were recorded by USDA-FAS over the past three weeks.

Factors influencing commodity prices in either direction over the past four weeks included:

- Fears of a mild U.S. recession in 2023 persist. The Federal Reserve increased the benchmark interest rate by 25 basis points at the February FOMC Meeting. In the post-release commentary and Minutes and subsequent presentations By Fed. Board Members including the February 7th, address by Federal Reserve Board Chairman, Jerome Powell continued moderate increases should be expected to suppress inflation that he conceded was moderating only slowly. Equity markets have fluctuated during the past month with inter-day closing prices showing a downward trend on sequential trading days this past week. The GDP for the fourth quarter of 2022 attained 2.9 percent. The January 2023 CPI and WP were higher than forecast and jobless claims on March 2nd were down below 200,000 for the seventh consecutive week suggesting continued inflation. (Transitory downward pressure on markets)
- It is evident that polarization in Congress will result in future conflict over funding SNAP, raising the debt ceiling and agricultural legislation including the 2023 Farm Bill. (Ultimately, downward pressure).
- Geopolitical tensions that impact wheat, corn, oilseeds and vegetable oil exports from Ukraine persist. Limited restoration of Black Sea shipping was accomplished following security guarantees by Ukraine to the Russian Federation. Extension of the agreement into March is questionable unless Russia receives concessions on sanctions. Russia has inflicted extensive and deliberate damage on the agricultural and energy infrastructure of Ukraine including elevators and crushing plants. (Upward pressure on corn and wheat and an indirect effect on soybeans if Black Sea shipping is interrupted.)
- There is an expectation that Brazil will attain a record soybean harvest of 153 million metric tons with export of 97 million metric tons. Corn harvests from Brazil for the 2022-2023 season will be higher than the previous season although recent dry weather will reduce yields in both Brazil and the Argentine. (Lower prices in the future subject to favorable reports on crop progress and actual harvests)
- The Dollar Index (DXY) has ranged from 95 to 116 over 52 weeks but has recently shown less volatility. The DXY was at 101 on June 2nd peaking at 116 in late October but declining to a range of 103 to 105 during February and attaining 104.5 on March 1st. The dollar index influences timing and volume of export orders. (Fluctuation in corn and soybean prices, high value depresses U.S. sales)

EXPORTS

The restored and functional 'legacy' FAS Export Report released on March 2nd for the week ending February 23rd reflecting market year 2022-2023, confirmed that outstanding export orders for corn amounted to 14.21 million metric tons (559.2 million bushels) with 15.0 million metric tons (591.6 million bushels) actually shipped. Net orders for the past week covering the 2022-2023 market year attained 0.6 million metric tons (23.5 million bushels) with 0.66 million metric tons (26.1` million bushels) shipped over the past working week. For the current market year outstanding sales of corn to date are 41.8 percent lower than for the corresponding week a year ago. For market year 2023-2024 outstanding sales this week amounted to 1.56 million metric tons (61.5 million bushels), with no orders for the 2023-2024-market year. (Conversion 39.36 bushels per metric ton)

The FAS Export Report for the week ending February 23rd reflecting market year 2022-2023, recorded outstanding export orders for soybeans amounting to 7.2 million metric tons (264.9 million bushels) with 41.6 million metric tons (1,529 million bushels) actually shipped. Net weekly soybean orders attained 0.36 million metric tons (13.2 million bushels) with 0.9 million metric tons (32.3 million bushels) shipped for the past week. For the current market year to date outstanding sales of soybeans are 2.0 percent higher than for the corresponding week a year ago. Sales recorded for market year 2023-2024 amounted to 1.3 million metric tons (48.1 million bushels) with sales of 0.13 million metric tons (4.9 million bushels) this past week. (Conversion 36.74 bushels per metric ton)

For the week ending February 23rd 2022 net orders of soybean meal and cake amounted to 172,400 metric tons for the market year 2022-2023. During the past week 193,000 metric tons of meal and cake combined was shipped, representing 3.6 percent of the total 4,846,700 metric tons shipped during the current marketing year. This quantity is 93.4 percent of the volume shipped through the corresponding weeks of the previous market year. For the next market year outstanding sales attained 119,000 million metric tons with sales of 40,500 metric tons this past week.

The USDA Grains and Oilseeds Outlook released on February 23rd documented initial planting intentions, ending stocks and prices for the major agricultural commodities.

Corn will be harvested from 83.1 million acres with a projected yield of 181.5 bushels per acre. Ending stocks will be up 48.9 percent to 1,887 million bushels, depressing price from the previous season by 16.4 percent to \$5.60 per bushel. (continued on next page)

Commodity Report (continued from previous page)

- Soybeans will be harvested from 86.7 million acres with a projected yield of 52 bushels per acre. Ending stocks will be up 28.9 percent to 290 million bushels tons, depressing price from the previous season by 9.8 percent to \$12.90 per bushel.
- Crushers will produce 54,475 million tons of soybean meal. Ending stocks will be up 35.0 percent to 450,000 tons depressing price from the previous season by 8.8 percent to \$410 per ton.

Projected harvests and ending stocks were documented in the February 8thWASDE #633, posted under the Statistics TAB. Corn yield attained 173.3 bushels per acre with a crop of 13,730 million bushels. Soybean yield was 49.5 bushels per acre with a crop of 4,276 million bushels. This report was based on actual harvest data and incorporated amended domestic use and export categories. The WASDE presumably considered the predicted impact on world prices following disruption of the 2022 Ukraine crop by the invasion from the Russian Federation. Values will be updated when WASDE #634 is released before mid-March.

COMMODITY PRICES

The following quotations for the months of delivery as indicated were posted by the CME at 13H00 on March 2nd 2023, compared with values at close of trading on February 23rd 2023 (in parentheses):

COMMODITY

Corn (cents per bushel)	March 638 (661).	May 633 (661).
Soybeans (cents per bushel)	March 1,520 (1,539).	May 1,509 (1,531).
Soybean meal (\$ per ton)	March 489 (494).	May 472 (478).

Changes in the price of corn, soybeans and soybean meal over five trading days this past week were:

- Corn: March quotation down 23 cents per bushel. (-3.5 percent)
- Soybeans: March quotation down 19 cents per bushel (-1.2 percent)
- Soybean Meal: March quotation down \$5 per ton (-1.0 percent)

The NASDAQ spot prices for feedstuffs per short ton at close of trading on March 1st 2023 with prices for the previous week were:

- Corn (ZC): \$229 was \$236, down 3.4 percent). 52-week range \$177 to \$289
- Soybean Meal (ZM): \$470 was \$478, down 1.7 percent. 52-week range \$403 to \$484

Values for other common ingredients per short ton:

- Meat and Bone Meal, (According to the USDA National AnimalBy-product Feedstuffs Report on February 24th): \$350 to \$420; porcine (MN) \$370 to \$450 ruminant. Price varies according to plant and location
- DDGS, (IA. and other states according to the University of Missouri Extension Service By-Product Feed Price Listing) \$280 to \$340 per ton. Price varies according to plant and location and is expected to fluctuate with the price of corn
- Wheat Middlings: According to the USDA National Mill-Feeds and Miscellaneous Feedstuffs Report on February 24th for MO. and other states: \$170 to \$220 per ton (Current value reflects wheat price following the invasion of Ukraine and from U.S. drought)
- Bakery Meal, (MO & TX): \$225 to \$240 per ton (unchanged)
- Rice Bran, (AR & TX): \$185 to \$260 per ton.

For each \$1 per ton (2.8 cents/bushel) change in corn the cost of egg production would change by 0.11 cent per dozen For each \$10 per ton change in the price of soybean meal the cost of egg production would change by 0.35 cent per dozen

The respective changes in the spot prices of corn and soybean meal on March 1st compared with February 24th would have reduced nest-run production cost for eggs by 1.1 cents per dozen. *(Rounded to 0.1cent)

COMMENTARY ON AVAILABILITY AND PRICES OF FEED COMMODITIES

The social restrictions imposed in the U.S. as a result of COVID-19, now being eased, were projected to reduce ethanol demand in 2022-2023 by 1.5 billion gallons or 10 percent of projected 2021-2022 requirement, accepting a nominal ten percent addition (E-10) to gasoline. This past week 88.3 percent (was 90.6 percent last week) of the U.S. ethanol fermentation volume was operational, based on the January 2022 U.S. Energy Information Administration (U.S. EIA) capacity data. The outlook for increased production will depend on higher domestic demand in addition to increasing the quantity that is exported. During December 2022 ethanol exports attained 72 million gallons (1.71 million barrels), down 29.0 percent from November with 65 percent to Canada; 12.3 percent to Philippines; Caribbean, 5.7; South Korea, 5.4; Mexico, 5.4; South and Central America, 1.6; Neither Brazil nor China imported ethanol from the U.S in November. U.S. imports in 2021, all from Brazil in November attained 21 million gallons (0.5 million barrels).

According to the U.S. EIA, for the week ending February 24th 2022 the industry produced on average 1,003,000 barrels of ethanol per day. This was down 2.5 percent from the week ending February 17th 2023 and at or above the one million gallon per day benchmark for the seventh consecutive week after three weeks below this level. On February 24th ethanol stock was down 3.2 percent from the previous week to 24.8 million barrels, representing an approximately 21-day reserve and confirming higher demand, given relative changes in production level and stock. The U.S. Energy Information Administration forecast ethanol production at 970,000 barrels per day during the first quarter of 2023. The White House allowed all-year round 15 percent addition to gasoline resulting in an increase in the blend rate to 10.5 percent average during the past summer. The short-term prospects for increased domestic consumption are unfavorable. *(continued on next page)*

Commodity Report (continued from previous page)

Many older vehicles cannot use higher than an E-10 blend and drivers are curtailing mileage due to high fuel costs. There are obvious restraints on fuel stations to store and dispense high-ethanol blends,

Recent Energy Prices:

- Ethanol quoted on the CBOT (EH) on March 1st was priced at \$2.16 per gallon unchanged over previous months due to lack of trading and compared to a 52-week range of \$2.16 to \$2.19 per gallon.
- On March 1st RBOB gasoline traded on NASDAQ (RB) at \$2.67 per gallon, up nine cents (3.5 percent) from the previous week. The 52-week range for RBOB gasoline is \$2.08 to \$4.28.
- The CME WTI crude price of \$77.52 per barrel on March 1st was \$1.61 per barrel (2.1 percent) higher than the previous week although with intra-week fluctuation reflecting the vagaries of energy market. Hydrocarbon sources of energy are now contributing less to inflation.
- The AAA national average gasoline price declined progressively over successive weeks in late 2022. Recently gasoline has trended higher but on March 1st was 3 cents (0.9 percent) lower than last week at \$3.36 per gallon for unleaded regular grade. Gasoline is now \$1.20 per gallon more expensive than ethanol but with a 63 percent higher BTU rating.
- The AAA national average diesel price was \$4.40 per gallon on March 1st, seven cents (1.6 percent) lower from the previous week but with prospects of a continuing rise in price due to a low national stock.
- CME Henry Hub natural gas was priced at \$2.78 per MM BTU on March 1st up 31 cents (12.6 percent) from the previous week and above the market bottom two weeks ago.

DDGS is freely available with most plants among the 198 operational on January 1st 2022 with a combined capacity of 1,134 million barrels per day functioning at 88.3 percent,. The University of Missouri Extension Service By-Product Feed Price Listing priced DDGS at \$280 to \$340 per ton on March 1st. Wide price variation exists depending on supplier, quantity and location. It is axiomatic that the cost of DDGS will reflect changes in the price of corn. Generally DDGS is currently incorporated at moderate inclusion levels in egg-production formulas based on price relative to the nutrient contribution of corn and other ingredients. This will change as corn and hence DDGS fluctuates in price.

The CME soybean price for March 2023 delivery at 15H00 on March 2nd was 13 cents per bushel lower to 1,520 cents per bushel compared to the previous week for March delivery. The current price of soybeans is a reflection of availability for domestic consumption and export orders. Soybean meal was down 1.0 percent to \$489 per ton for March 2023 delivery. Prices are obviously influenced by projections of yield in the three major producing nations in South America. The downstream freight cost on barges from Midwest Mississippi loading elevators through to export terminals has declined as the rise in river level has allowed larger tows and quicker passage. During October 2022 the rate was \$106 per ton. In late February the barge rate was \$19 per ton from St Louis downstream to Mississippi River export terminals. This has made U.S. corn and soybeans more competitive relative to Brazil and Argentine.

According to a release on February 15th by the National Oilseed Processors Association, whose members process 95 percent of the U.S. crop, 179.0 million bushels of soybeans were crushed in January 2023, lower than estimates averaging 181.7 million bushels. Crush volume was up 0.9 percent from the previous month, December 2022, at 177.5 million bushels. The January 2023 crush was 1.8 percent lower than the January 2022 value of 182.3 million bushels.

On March 1st the CME spot price for soybean oil was down 1.8 percent from the previous week at 60.47 cents per lb. Prices for vegetable oils have fluctuated over past weeks but with a growing market acceptance that total oilseed supply will eventually be limited by a sharply diminished supply of sunflower oil from Ukraine, the World's largest exporter of this commodity. Ukraine is subject to restraints on cultivation and limits on crushing and exports due to hostilities following the invasion by Russia. Imposition of export restrictions on palm oil by Malaysia will impact prices. It is anticipated that 41 percent of U.S. soy oil was diverted from fuel to biodiesel during 2022.

On March 1st, the soybean meal spot price quoted on NASDAQ was \$470 per ton, \$8 per ton lower than the spot price last week and compared to a 52-week range of \$403 to \$484 per ton.

On March 1st Meat and Bone meal was priced over a range of \$350 to \$450 per ton according to the USDA National Animal By-product Feedstuffs Report, Prices quoted were for central U.S. plants but with a wide range based on composition, source and location. Price fluctuation reflects changes in soybean meal and other oilseed meals.

On March 1st the conversion of the CNY to the BRL was BRL 0.75 down CNY 0.01 from last week. The conversion of the CNY to the US\$ was CNY 6.88, up CNY 0.04 from the previous week.

For consecutive calendar years 2017 through 2019 the U.S. supplied 34.4 percent of soybean requirements for China amounting to 95.5 million metric tons. This was followed by a decline to 16.9 percent of 88.5 million metric tons in 2018 and 16.6 percent of 88.0 million metric tons in 2019. The USDA anticipated that soybean imports by China would attain 95.0 million metric tons during the 2020-2021 market year but in reality only 60.3 million tons was shipped through August 2021.

For the 2021-2022 market year net export sales of corn were down 0.13 million tons (5.1 million bushels) compared to the previous market year with cumulative exports of 59.764 million tons (2,352 million bushels)

For the 2021-2022 market year net export sales of soybeans were down 0.11 million tons (4.2 million bushels) compared to the previous market year with cumulative exports of 57.118 million tons (2,099 million bushels).

Gangrenous dermatitis a threat to broiler chickens

February 2023 by Tom Tabler, University of Tennessee; Victoria Ayres, Tennessee Tech University; Pramir Maharjan, Tennessee State University; Yi Liang, University of Arkansas; Jonathan Moon, Mississippi State University ; Jessica Wells, Mississippi State University

Gangrenous dermatitis (GD) was first reported in the United States in the early 1930s (Niemann, 1930). Although GD has been recognized for many years as a sporadic disease, the prevalence and severity of this condition has increased over the past two decades in the U.S. and elsewhere (Gornatti-Churria et al., 2018). It is a disease that affects primarily commercial broiler chickens and turkeys and is responsible for severe economic losses in the poultry industry worldwide (Li et al., 2010). GD is generally fatal, often within 24 hours. When an outbreak occurs, it often appears that **growers may have healthy birds and dead birds, but few birds in between**. It often occurs in fast-growing broiler chickens between 4 and 8 weeks of age although GD has been reported in broiler breeders, commercial layers and turkeys. Economic losses that range from 50 to 400 birds per house per day are not uncommon. The disease has been known by a variety of names, including avian malignant edema, gas edema, necrotic dermatitis, gangrenous cellulitis, red leg, blue wing and wing rot.

What causes GD?

A wound to the skin usually starts the process in motion. This is quickly followed by a secondary bacterial infection with Clostridium perfringens type A, Clostridium septicum or Staphylococcus aureus (alone or in combination). These bacteria are usually not able to penetrate intact skin. They need help from a scratch or a wound to gain entrance; however, infectious agents can be ingested if healthy birds peck at dead birds that have died with the disease or if litter and feces are contaminated with large numbers of disease-causing organisms. Staphylococcus aureus is often associated with milder forms of GD. Cases are generally much more severe and have much higher mortality when Clostridium is the cause. Clark et al. (2008) indicated that for GD to occur and affect large numbers of birds, generally three things were required:

- 1. Some type wound or injury to the skin,
- 2. Disease organisms (Clostridium or some other species) present in sufficient numbers to cause disease, and
- 3. Some type of immune suppression.

Immunosuppression can be triggered by a variety of infectious factors in the poultry house environment such as infectious bursal disease virus, chicken anemia virus, Marek's disease virus, reoviruses, etc., and environmental factors such as skin injuries (Clark et al., 2010) and wet litter (Martland, 1985).

There is no shortage of sources for potential skin injuries, even on well-managed poultry farms. Chicken toenails are a source of numerous cuts and scratches that broilers receive during the growout period. Growers should monitor their houses and eliminate any potential injury risk (sharp edges along walls, exposed nails at bird level, ladders left in the poultry house, etc.). It would be virtually impossible to remove all disease-causing organisms from the poultry house. Clostridia and staphylococci are ubiquitous (present everywhere) in the poultry house environment and in the intestine and on the skin of the birds. Fortunately, it is not necessary to remove all disease-causing organisms. We only need to maintain numbers below the threshold where the birds would be overwhelmed by the magnitude of disease-causing organisms.

Presence alone of disease-causing organisms does not automatically result in sickness or a disease outbreak. Other contributing factors likely play a role in development of clinical disease. Clostridia are extremely hardy and capable of surviving harsh environmental conditions for long periods of time. It is, therefore, unlikely that they can ever be totally eliminated from the poultry house environment. In addition, they are spore-forming bacteria that, when they detect that their environment is becoming unfavorable, form a spore that helps them survive until conditions improve. The spore is resistant to desiccation, practically all disinfectants, heat and cold.

What to do?

Birds with a strong, or even a reasonably competent, immune system are generally not affected by GD. Therefore, it is often believed that factors that result in immunosuppressive effects such as diseases mentioned earlier like infectious bursal disease, inclusion body hepatitis, reoviruses, chick infectious anemia, Marek's disease, etc., may set a flock up for GD. In addition, mycotoxins (particularly aflatoxin) in the feed can result in immune suppression, as can birds subject to stressful situations like overcrowding, heat stress or wet litter conditions. Additional stressors such as coccidiosis, nutritional deficiencies, environmental extremes and management issues may also suppress the immune system, leading to greater risk of GD. It is **common for farms that have had GD before to have repeat outbreaks** unless corrective action is taken. This is often because there are large numbers of Clostridia present in the litter, capable of exceeding the threshold the birds can manage and overwhelming the immune system.

Corrective action may take several forms. A complete cleanout and disinfection of the house(s) is usually the best choice to reduce bacterial numbers and spore counts after an outbreak; however, even a complete cleanout may not completely eliminate the problem on farms with a history of GD. In addition, a complete cleanout is not always an option. Short downtimes between flocks, availability and cost of new bedding materials and unfavorable weather conditions may make a total cleanout impossible. As an alternative, there are field reports that indicate different degrees of success using various litter treatments to cause a dramatic reduction in pH of the litter, which may restrict microbial growth. Sodium bisulfate, aluminum sulfate, salt and other products have been used to reduce the occurrence of GD. (*continued on next page*)



Gangrenous dermatitis a threat to broiler chickens (continued from previous page)

NOTE OF CAUTION TO GROWERS: Do not apply any product to the litter or poultry house pad without first consulting with your flock supervisor or live production manager and receiving the green light from your integrator that the product in question is safe to use and approved by your integrator. Furthermore, growers should read the label on any product they use and understand all the consequences associated with any product they apply and how that product may affect the litter for future use.

Windrowing litter between flocks is another alternative to a total cleanout to reduce the total pathogen load of the litter. Remember, it's not necessary to kill all the pathogens in the litter; however, it is critical to reduce pathogen numbers below the critical threshold so that the overall pathogen count is not a threat to the flock. In-house **windrowing can eliminate most (not all)** of the pathogens present in the litter, including Clostridium, when done correctly (Macklin et al., 2007). Construct the windrows as soon as possible after the birds leave. Do not wait 3-4 days to start. Windrowing takes advantage of primarily heat generation to kill microorganisms although competitive exclusion (replacing "bad" bugs with "good" bugs) and high ammonia levels may also play a role in reducing pathogen numbers.

Pathogens grow most effectively at a temperature range similar to the body temperature of their host; with chickens, this is a temperature around 105-107 F. If the temperature can be increased a few degrees, growth rate of the pathogens can be inhibited. Raising the temperature 20-30 F above optimum can kill many microorganisms. Therefore, establish the goal of a minimum target temperature of 130 -135 F inside the windrow. If this can be reached, this is hot enough to kill most pathogens. It is thought that if the litter temperature increase associated with windrow composting is sudden enough that it may catch Clostridium off guard and unprepared to form a spore in time to save itself. However, acting quickly after the flock leaves to construct the windrows is critical, as is determining litter moisture content. Litter that is too dry will not allow the windrow to heat. If less than 30 percent moisture is present in the litter, the windrow will have a difficult time achieving a temperature of 130 F or greater, and bacterial growth may be inhibited, but the bacteria will not be killed. Too much moisture will have a similar effect. Litter moisture greater than 60 percent may prevent the windrow from heating because the litter is too wet.

What to look for

Gangrenous dermatitis has characteristic lesions that help identify it once you know what to look for. GD often starts with small pimples on the skin that quickly progress to include much larger areas of the bird. What often first attracts attention are what appears to be small areas on the top of the wings that look like raw sores or bloody spots. These may appear small early on, but there is generally much more of the bird affected than just the wing; however, the top of the wing is easy to see as you walk the flock and can alert you to the fact that something is wrong. You may pick up on the wing damage before the mortality starts to increase. If you miss the wing damage, you won't miss the rapid and steep increase in mortality as the disease spreads through the flock.

Birds with the disease never show clinical signs for long because they die very rapidly, generally within 24 hours. Lesions on the skin may appear in a variety of colors from dark red to purple to green (Figures 1 and 2). Lesions most often appear on the abdomen, breast, legs and wings. Gas or gelatinous fluid often accumulates under the skin, between the skin and muscle tissue.

Therefore, the skin often has a "spongy" feel to it because of gas buildup between skin and muscle tissue. Muscle tissue is also affected and may appear as raw, moist areas in locations where the skin has deteriorated. Dead birds deteriorate and decompose extremely rapidly. You may pick up dead birds early this morning and know you have them all but then go back before noon and find numerous dead birds that look like they have been dead several days instead of only a few hours.

You must pick up dead birds multiple times each day should your farm be affected with a GD outbreak. Healthy birds pecking at dead birds can contract the disease, and live birds that have the disease can infect healthy birds via feces, feeding equipment, etc. Birds with the disease don't live long, but they can do plenty of damage before they die. Often, a fairly accurate diagnosis can be made by the rapid increase in mortality and the characteristic gross lesions. It is not something you will easily forget if you ever have a case on your farm. Therefore, should you have it a second time (which often happens until the Clostridium numbers in the litter are reduced), you'll quickly know what you are dealing with. Be advised, it can be tracked from house to house, so take precautions and practice sound biosecurity when working in your houses. If you have an outbreak in one house, work that house last and dedicate footwear for each individual house to help prevent tracking it to the other houses.

Growers should closely monitor feed inventory. Do your best not to run out of feed. If your feed inventory runs low, contact your flock supervisor or the feed mill to make sure you are scheduled for a feed delivery soon. Bird activity greatly increases when hungry chickens receive feed. This results in an increase in the number of cuts, scratches and skin damage. In addition, make sure migration fences are in place on schedule to prevent overcrowding in some quadrants of the house that can lead to increased skin damage and a greater GD risk. Avoid loud noises or any activity that may frighten the birds and result in increased scratches or skin damage. Follow a lighting program that helps keep the birds calm and controls their activity level. Calm flocks will have fewer scratches and skin damage than nervous, flighty flocks. Anything you can do that reduces stress and/or lessens the possibility of a skin injury will reduce the risk of a GD outbreak.

As with many other aspects of broiler production, management factors play a critical role in preventing and controlling a GD outbreak. Reports of outbreaks are often greater in summer and fall than in spring and winter. Daily mortality collection is important throughout the year but is especially critical during hot weather. It's easy to miss a dead bird from time to time, but do your best not to miss one single dead bird from one day to the next. (continued on next page)

Gangrenous dermatitis a threat to broiler chickens (continued from previous page)



Figure 1. Necrotic skin from a bird with gangrenous dermatitis. (Source: merckvetmanual.com)



Figure 2. Birds with gangrenous dermatitis decompose rapidly. (Source: merckvetmanual.com)

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Collection of all mortality at least once daily is critical to disease prevention. Unsanitary conditions, poor farm management practices and stressful environmental conditions (wet litter, high humidity, overcrowded conditions) may predispose flocks to GD. In addition, chicken house pads with a soil pH > 6 may also be at a greater risk of GD infection. Wet litter (> 60 percent moisture) should be considered a risk factor for GD. High in-house humidity resulting from cool cell usage throughout the summer and fall may increase litter moisture content, thereby increasing GD risk.

Summary

Gangrenous dermatitis is a serious health concern for many commercial broiler operations that has increased in recent years. Its somewhat come-and-go nature can make it more difficult to determine all the factors that play a role in its occurrence. Prevention should be the overall goal because managing a GD outbreak is stressful, labor-intensive, time-consuming and expensive. Clostridium and other disease organisms that cause GD are everywhere in the poultry house environment, making it unlikely they can ever be totally eliminated. Fortunately, total elimination is not necessary; we just need to maintain their numbers below the threshold that the birds are able to resist a challenge and remain healthy. It's when pathogen numbers get above that threshold that we see sick chickens. Growers should focus on sound management practices, farm hygiene and good litter and house environment conditions to reduce the GD threat to their flocks. \Box

Preventing fires in poultry litter stacking sheds

January 2023 by Tom Tabler, Shawn Hawkins, Yi Liang, Victoria Ayres, Pramir Maharjan, Jonathan Moon, and Jessica Wells

Storing poultry litter in a covered storage structure is a valuable, well-proven, environmentally sound best management practice. A litter stacking shed preserves the nutrient content of the litter. It also allows the litter to be stored in a secure environmental manner that protects surface and groundwater quality. Litter storage allows flexibility timing land application of litter to coincide with crop and forage nutrient demand. The structure also provides protection from rainfall, keeping the material dry. In short, a litter stacking shed is a critical part to a poultry farm's overall farmstead and nutrient management program.

However, there is a risk of fire associated with litter stacking sheds. Proper management practices can lessen this risk, but growers should be mindful that the fire danger is real and must be guarded against continuously. Failure to implement good litter stack management practices can result in overheating and spontaneous combustion of stored litter and possible loss of the stacking shed from the resulting fire.

Recognize the fire danger

It has long been recognized that heat is generated and temperatures increase significantly when microbiological activity occurs in an insulated environment, such as a large stack of poultry litter. Litter is home to a diverse microbial population, and as microbial activity occurs within the litter, heat and methane gas are produced. Heat is also generated chemically at the boundary layer between moist litter and dry litter in the storage pile. As a result, spontaneous combustion (self-ignition) can occur in a litter pile especially if temperatures climb above 190 F.

Litter that is stacked too high at the walls of the shed can ignite the walls if the temperature in the litter reaches the flash point of the wood (Figures 1-4). Litter that is stacked too high can also spontaneously combust because of excess heat and methane buildup within the stack. It is a similar process to the spontaneous combustion of hay bales or silage stored in barns or silos; however, less is known about the spontaneous combustion of poultry litter. *(continued on next page)*

Preventing fires in poultry litter stacking sheds (continued from previous page)

One thing we do know is that litter should not be compacted, so do not drive a tractor on stored litter because this compacts the litter and increases the likelihood of a fire (Figure 5). It is a good idea to use a compost thermometer to frequently monitor litter temperature.



Figure 1. Litter stacked over 7 feet high in a stacking shed. Sidewall is 5 feet high. Photo by Tom Tabler.



Figure 2. Litter overheated and caught this stacking shed sidewall on fire. Photo by Tom Tabler.



Figure 3. Overheated litter can reach the flashpoint of wood and start a shed fire. Photo by Tom Tabler.



Figure 4. Lumber and posts destroyed by overheated litter in a stacking shed. Photo by Tom Tabler.

Spontaneous combustion occurs more often than many people realize. Overheating and spontaneous combustion in hay barns, landfills, coal piles, and containers of oily rags are somewhat common occurrences. There are likely both biological and chemical factors at work with poultry litter storage fires, although the exact causes are not well understood. Fires and explosions have occurred before in sanitary landfills that produce combustible methane. Conditions must be right for the growth of anaerobic bacteria that produce methane. These conditions include an oxygen-free or very low-oxygen environment and a moisture content greater than 40 percent. This is often the case when fresh litter (especially caked litter) is added to the stacking shed, especially if it is compacted in order to store more litter than the shed should hold.

Methane gas is less dense than air and, therefore, can readily rise and escape to the atmosphere given a pathway (i.e., adequate pore space in the surrounding litter). Unfortunately, litter that has been compacted by being driven on with a tractor, or is simply stacked too high, may no longer have adequate pore space to vent methane. As a result, methane concentration can increase to a point where it is flammable in the air, at concentrations as low as 5 to 15 percent.

Like compaction, mixing dry and wet litter is never a good idea and can also lead to spontaneous combustion. When dry litter comes in contact with moist litter, the dry litter absorbs moisture and heat is generated. As a result, the area between the new and old litter becomes a heat production zone. The higher the litter is stacked, the greater the potential for significant heat generation. If this heat cannot escape, the temperature inside the stacked litter can increase significantly. Microbial activity plays a large role early on in heat generation, but this role decreases over time because most bacteria are killed between 130 F and 165 F. Chemical reactions are likely responsible for continued heating beyond 165 F and likely cause the actual combustion as temperatures climb to 190 F and higher.

Risk factors

A combination of several factors is often present when a poultry litter stacking shed fire occurs:

1. Moisture. Moisture is likely the most critical factor in stacking shed fires. Dry litter does a poor job of heat generation and retention, but wet litter does a very good job of both producing and retaining heat. Once litter is stored and the composting process begins, moisture evaporates or is used by the microbial population and heat is generated. *(continued on next page)*

Preventing fires in poultry litter stacking sheds (continued from previous page)

Likely the most common mistake that producers make is adding moist litter to dry litter that has been in the shed for a while. The area where the two zones meet becomes a favorable environment for anaerobic bacteria growth. As they grow, anaerobic bacteria generate gases that are composed of about 50 to 65 percent methane, 30 percent carbon dioxide, and a smaller percentage of other gases (Hess et al., 2018). If the moisture content of the litter in the shed is more than about 40 percent, with little or no available oxygen, anaerobic bacteria will thrive and produce an abundance of methane gas. Litter added to the stack at less than 40 percent moisture lessens the risk of methane production and overheating, while litter added at greater than 40 percent moisture increases this risk. If the stacked litter has not been compacted and has adequate pore space, the methane gas that is produced will have a vent to the atmosphere and will not build up in the litter. Realize that litter always has active microbial populations that generate heat as a result of their activities. In certain ideal situations, a combination of this microbial heat production and chemical reactions within the litter cause spontaneous combustion in litter to occur.

2. Layers of dry and wet litter. Stacks that contain litter that is layered either horizontally (new wet litter stacked on old dry litter) or at an angle (new wet litter pushed against the sloping sides of old dry litter) pose a risk. The boundary where these layers meet becomes a methane and heat production zone. The larger the stack, the greater the risk of overheating and spontaneous combustion.

3. Stack size. The size of a litter stack affects heat production and heat release. Height (in particular) and width are more important than length. Higher and wider litter stacks increase the risk of excessive heat production and fire, whereas smaller stacks provide a larger surface area for heat release and lower the risk of fire. Litter in a stacking shed should never be stacked more than 7 feet high at the center and no more than 4 feet high at the walls.

4. Compaction. Compaction encourages anaerobic conditions in litter. Compacting also tends to trap both methane and heat within the litter stack by lessening the available pore space and vents for dissipating heat and methane. Do not drive a tractor over the litter in a staking shed.

5. Caked litter. Many producers add caked litter to their stacking sheds between flocks, but this can be risky. Decaked litter is often wet litter that can increase risk of fire danger, especially when added to dry litter already in the shed. Caked litter should be separated from dry litter in the stacking shed until it has had a chance to dry.

Best management practices

- Invest in a compost thermometer so you can frequently monitor litter stack temperatures this can alert you to an increased risk of fire and prevent loss of the stacking shed.
- Stacked litter temperatures of 160 F or less are considered normal. Temperatures above 160 F require closer attention and increased caution. If the litter temperature reaches 180 F, the material should be removed from the shed.
- If stacked litter reaches temperatures near 190 F or if the stack begins to smolder, the material should be immediately removed from the shed. Be extremely careful when breaking into the pile because disturbing a smoldering litter stack can expose it to increased oxygen and start a fire. Having the fire department on hand before disturbing a smoldering litter stack is recommended.
- If the smoldering material is land applied, make sure it does not catch the field on fire.
- Do not store expensive farm machinery in a litter stacking shed this can greatly increase the liability incurred if there is a fire.
- Never stack litter over 7 feet high at the center or 4 feet high at the walls of the shed.
- Do not layer wet litter on dry litter.
- Separate wet caked litter from dry litter in the shed until the wet litter can dry.
- Do not compact litter in the shed.
- Protect litter in the shed from wind-driven rain, which otherwise can add moisture to litter and increase the fire risk.

Summary

Litter stacking sheds are an important part of nutrient management programs for broiler farms across the country. Stacking sheds lessen the possibility of polluting surface and ground waters and improve flexibility in timing land application of poultry litter. However, litter stacking shed fires are a real possibility if the best management practices discussed herein are not followed.

Spontaneous combustion is possible, particularly if litter is stacked over 7 feet high in center of the shed or 4 feet high at the walls. Litter moisture content is a critical factor in shed fires.

Compacting litter in the shed, layering wet and dry litter together, and not separating new caked litter and old dry litter increase the risk of fire. Frequent temperature monitoring of litter in the shed and proper precautions will greatly reduce the risk of a stacking shed fire and keep your litter shed intact for many years to come.

Chickens inspire potential new pain relief drug for people

February 20, 2023 at <u>WattAgNet.com</u> by Elizabeth Doughman

Elizabeth Doughman: Understanding how chickens tolerate the taste of spicy peppers could result in a better way to manage pain in humans. <u>Click here for full article</u>

Farmers can buy more tax free in 2023

January 18, 2023

NASHVILLE – The Tennessee Department of Revenue and the Tennessee Department of Agriculture remind farmers, timber harvesters, and nursery operators that they can buy more items tax-free in 2023.

Under a new state law taking effect January 1, 2023, qualified farmers and nursery operators may purchase building material, fencing material, warranties, and most other items of tangible personal property used primarily in agricultural operations exempt from sales and use tax.

"Farming is an important industry in our state, and we were pleased to work with the Tennessee Department of Agriculture, members of the Tennessee General Assembly, and other stakeholders to expand the agricultural sales tax exemption," Revenue Commissioner David Gerregano said.

"The new tax exemptions will greatly benefit Tennessee's farmers and foresters when purchasing what they need for their operations to thrive," Agriculture Commissioner Charlie Hatcher, D.V.M. said. "As Tennessee's number one industry, when agriculture is strong, everyone benefits. We appreciate our policymakers for recognizing the importance and impact of ag."

To purchase farm equipment and machinery tax-free, farmers must show their Tennessee sales tax exemption card. To obtain a card, famers should complete the Agricultural Sales and Use Tax Exemption application.

Automobiles, trucks, household appliances, and gasoline or diesel fuel used in vehicles operated upon public highways remain subject to sales tax. Additionally, contractors and subcontractors who use property in the performance of a contract with a qualified farmer or nursery operator are subject to sales and use tax on that property.

For more information about the agricultural sales tax exemption, read this important notice and this tax manual on the Department of Revenue's website. For questions, please call 615-253-0600 or email revenue.support@tn.gov. \Box

Advice for women starting careers in the poultry industry

February 3, 2023 at <u>WattAqNet.com</u> by Meredith Johnson

At DSM's Building Your Future Event, poultry industry professionals provided advice based on their real-world experiences to women who are in the beginnings of their career. <u>Click here for full article</u>







IPPE 2023 (more pics on page 31)







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