

# TPA NEWSLETTER

*"Serving the integrated broiler/breeder industry in Tennessee"*



Winter 2020

## Looking forward...

As the year winds down, we look forward to the implementation of a quick and effective COVID-19 vaccination program. Our thoughts and prayers continue for those who have been directly and indirectly affected throughout this pandemic. Many of us are still waiting for the election results to be finalized and are coming to the realization that the outcome may not be as we had hoped. The Senate races in Georgia will continue to be watched closer than, or at least as close as, college football, and the thought of who could end up being the next Secretary of Agriculture is very concerning. See page 11 for an overview of who is thought to be in consideration for this position under a Biden administration. Will ag policy that we've been fighting for and strengthening in recent years soon be overturned or greatly weakened?

Constantly learning and ever impressed with our industry, I continue to get excited as I learn things new to me and I enjoy sharing this info. For some of you, the technical material in our newsletters may be old news while others like me are still learning and may be seeing it for the first time. Some of our readers are actually the experts. They are the ones figuring this stuff out for the rest of us and are already putting it to best practice in the plants and on the farms. Advancements in automation for the processing plants can be expected to ramp up quickly over the coming years to help further address the workforce challenges. Automation to sex chicks and technology to influence embryological determination of sex is neat to follow. It's coming.

Learning more about trailing edge dimmers, why dimmers and lights fail, why lights (and even parts within them) shouldn't be mixed and matched, and how houses may not be grounded correctly is great stuff not to be taken lightly if you are a grower or service tech. If you have questions or just want to see if you are current with what is known, there's a great article in this issue by Tom Ellsworth addressing these topics that he presented at an extension meeting for growers in Clay Co. last month.

From a biosecurity standpoint, the good news for 2020 is that the virulent Newcastle Disease (vND) concern in California has gone away. Unfortunately though, the bird flu is rapidly spreading in the Eastern Hemisphere. European countries, Russia, South Korea and Japan are currently affected. Their wild birds will be migrating north next spring and co-mingling with birds that will be flying our way later in the year. We must never drop our guard and must always practice the ultimate in biosecurity.

Until next time, may your chicken houses be full of healthy birds, the processing lines at the plants be flowing smoothly and at capacity and the trucks running from all directions as they should be! Happy Holidays, Everyone!

/dale

## Merry Christmas

We couldn't be more thankful for all of the support we have received over the past year. Wishing you a very Merry Christmas and hoping that 2021 is your best year yet.



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## Cobb-Vantress, Inc.'s TN Grandparent Complex

Lafayette, in Macon County, TN, is home to primary breeder Cobb-Vantress, Inc.'s TN Grandparent Complex. Located south of the Kentucky state line and northeast of Nashville, Lafayette has a small-town atmosphere with a population of 4,474. Most of the surrounding area is rural with agriculture playing a key role in the local economy. Historically, Macon County has been one of the top producers of tobacco in TN. The production of hardwood lumber is also an important industry in this county.



*Cobb's Lafayette Production Office*

The primary function of Cobb's Grandparent (GP) operations is to provide day old parent stock chicks and hatching eggs to their customers in the US and around the world. The TN GP Complex began operations in 2009 and is the newest of its five GP complexes, with the others spread across the Southeastern US. At the same time, the production office and QA facility were built alongside the hatchery in Lafayette, and construction began on contract farms throughout the area. In 2015, Cobb built a new feed mill in Albany, KY to service the TN complex as well as the Kentucky GP Complex and pedigree farms in the area.



*The Lafayette Hatchery*

*continued on page 5*

## TPA BOARD of DIRECTORS

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## European Food Safety Authority Warns of Rapid Spread of Bird Flu

November 27, 2020 in [fleischwirtschaft.com](https://www.fleischwirtschaft.com)

A warning of a high risk of avian flu spreading to previously unaffected EU countries has been issued by the European Food Safety Authority (EFSA). According to a report from the authority in Parma, the virus is currently spreading rapidly in many European countries. In October, more than 300 cases were reported in Germany, Belgium, Denmark, France, Ireland, the Netherlands, Sweden and the UK. Most cases, according to EFSA, were found in wild birds. However, there have also been a few outbreaks in domesticated poultry flocks. In its new investigation, the Authority considers that wild birds are highly likely to transmit the virus to poultry.

[Click here for full article](#) □



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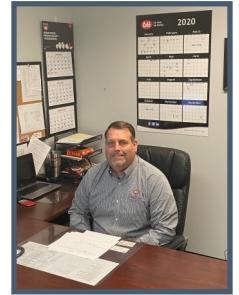
## Spotlight on Cobb-Vantress Lafayette *(continued from page 3)*



**Dusty Cagle**, Senior Manager of Production at the TN GP Complex, graduated from the University of Georgia with a degree in Poultry Science. He began his career with another primary breeder company where he worked for 8 years. He has been with Cobb for nearly 6 years and in that time has had the opportunity to work with Cobb's pedigree, great grandparent (GGP), and GP operations in four different locations. He has served in his current role in Lafayette for a little over a year and had this to say about the complex: "Cobb's TN Grandparent Complex in Lafayette is a great place to work. We have a young and talented group of service techs, a great support staff, and a crew of hourly team members that are as good as any I've worked with throughout my career. One of Cobb's core values is "family" and we try to live by that here by looking after one another while getting the job done. We also have a strong group of contract growers, and I'm proud of everyone who plays a role in our company in Tennessee."

**Scott Ballinger** currently serves as Senior Feed Mill Manager at the Cobb-Vantress Feed Mill located in Albany, KY. Scott graduated from Eastern Kentucky University with a degree in Animal Science. He spent the next 9 years in management for a farm supply company selling chemicals, fertilizer, and farm supplies.

Scott has been with Cobb-Vantress for the past 18 years. He began in the transportation department and then transitioned into the lab as a microbiologist. Following his stint in the lab, Scott joined the Cobb-Vantress production team where he served as a service tech before moving onto the hatchery side of the business as Kentucky Hatchery Manager. Scott most recently joined the feed milling team in July where he serves as Feed Mill Manager.



As mentioned, one of Cobb's core values is "family". Scott attributes much of his success to this "family" value, stating that in every department in which he has worked, hard-working, dedicated team members have treated him like family and helped him succeed. Since coming to the feed mill Scott says he has "been impressed with this team's work ethic and drive to produce the best product they possibly can. I feel blessed that 18 years ago I found a home at Cobb. I am proud to come to work every day and work with a team that takes great pride in what they do."



**Kannithia Brown** is the HR Generalist & Benefits Counselor for the TN Hatchery & GP Complex. She began her career with Cobb in Wadesboro, NC in 2005. In 2009, she relocated to Lafayette, Tennessee for the construction of the new complex. Kannithia has been a part of the Cobb family for 15 years and states: "Being the best is one of Cobb's core values and the Cobb TN team members take great pride in providing our customers a quality product."

**Andrés Aguirre-Aguayo** is the Senior Hatchery Manager at the Lafayette location. Andrés started his career in poultry almost three decades ago in México, his country of origin. His father introduced him to hatcheries and incubation when he was very young, having no idea he would continue with this legacy some years afterwards. He attended "Universidad del Valle de Atemajac" campus in Guadalajara, México to get a degree in Business Administration focusing in Costs of Production. He has had the opportunity to work for different companies in México, the United Kingdom and the United States. Andrés proudly states: "I am grateful to work for a company with strong core values for the past seven years. I appreciate the chance to work with very knowledgeable people and for the privilege to lead a group of team members committed to grow and succeed. Working for a world leading company is a challenge and an honor."



*Cobb-Vantress feed mill located in Albany, KY*



*Russell Farm*

*(This is the fourth in a series of articles spotlighting our TPA poultry complex members. Over the next several newsletters, we plan to showcase each of our member complexes in random order.)*







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## ALLIED MEMBER NEWS

**Cory Shadden**, former GP Complex Manager for Aviagen in Elkmont, AL is now with **Farmers Poultry Supply**.



**Chynette Todd** has joined **BioSafe Systems** as their new Marketing Coordinator with focus on MPS. Chynette is a former broiler manager and animal welfare officer with Keystone Foods and is also owner of **CT Consulting**.

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## NEWS FROM AROUND THE COMPLEXES

**Aviagen** Pedigree Farm in Crossville, TN - **Kevin Jolley** is the new Live Production Manager. He has been with Aviagen for four years as a farm manager and farm supervisor. He is a graduate of MTSU. Former Live Production Manager **Andy Goldman** is now managing the research farm for Aviagen in AL.



**Mark Harmon** has come out of "retirement" as the new Live Production Manager for **Tyson Foods Humboldt**. Mark was formerly the Director Production for Hubbard/Aviagen in Pikeville, TN and before that had a career as Live Production Manager and Interim Complex Manager with Tyson Foods Shelbyville.

## Tyson Foods joins Global Coalition for Animal Welfare

November 9, 2020 in [WattAgNet.com](http://WattAgNet.com) by Elizabeth Doughman

Tyson Foods has pledged to address systemic barriers to improving animal welfare and drive progress on key welfare issues by joining the Global Coalition for Animal Welfare (GCAW).

[Click here for full article](#) □

**Chore-Time** has updated its CHORE-TRONICS<sup>®</sup> 3 Controller with features to help poultry producers optimize productivity. The most significant upgrades focus on automatically adjusting the environment of poultry houses to enhance bird comfort and health. These features are standard in new installations and can be added to existing CHORE-TRONICS 3 Systems through a simple software update. □

## New Cobb Hatchery Management Guide Works to Support Best Outcomes

The new Cobb Hatchery Management Guide is the latest in updates and introductions expanding on Cobb's commitment to providing customers with tools to help make quality protein accessible, healthy, and affordable worldwide. The guide includes the company's latest recommendations based on breed performance, current scientific knowledge, and practical field experience from around the world.

[Click here for full article](#) □

TPA mourns the loss of **Ricky Gaines** on September 18, 2020. Ricky, who worked for **Southwestern Sales Company**, was a great friend to many. Always smiling, always upbeat, he will be missed.

[Click here](#) to see the full obituary. □



## DATES TO REMEMBER

### TPA SERVICE TECH TRAINING

March 3, 2021  
Lebanon, TN

### TPA SCHOLARSHIP FUNDRAISERS

*Sporting Clays Shoot*  
April 7, 2021  
Crossville, TN

*Golf Tournament*  
April 8, 2021  
Nashville, TN

### TPA ANNUAL MEETING & SUMMER GETAWAY

August 13-14, 2021  
Gaylord Opryland Resort & Convention Center  
Nashville, TN

### TPA GROWER MEETINGS

November 2, 2021  
Martin, TN

November 11, 2021  
Cleveland, TN





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KennyWilliamson@BankPlus.net





## Aviagen Expands U.S. Operations, Signaling Growth and Success

Posted on 11/06/2020 at [en.aviagen.com](https://en.aviagen.com)

HUNTSVILLE, Ala. – On Nov. 5, Aviagen® hosted a grand opening event at its Elkmont, Ala., U.S. campus. The occasion marked the completion of a new Veterinary Services building, along with the expansion of the facility's existing diagnostic laboratory, which was highlighted with a tour of the lab's innovative features. This project was started in mid-2019.



Because attendance was limited due to COVID-19 restrictions, we'd like to share with you a [video](#) of the event speakers and tour of the new state-of-the-art vet laboratory.

The company's strategy is to further strengthen the health, welfare and biosecurity of Aviagen birds amid a rising global demand for the company's broiler breeding stock.

### Diagnostic laboratory expansion

The Elkmont diagnostic laboratory is one of two in the United States, and numbers among the company's seven laboratories strategically positioned throughout the world. The Elkmont facility employs 45 highly skilled personnel, including veterinarians, microbiologists and technicians, and is dedicated to highly specialized testing capabilities. In addition to working to protect Aviagen high-generation breeding flocks from disease and harmful pathogens, the lab team supports the company's internal groups through collaboration on special research projects.

The extra 7,500 square feet (700 square meters) has nearly doubled the existing floor space, allowing for a new Molecular Suite, which enables the company to continue to improve on state-of-the-art methodologies and equipment. The lab meets all government and international quality authorizations needed to conduct official health testing to ensure breeding stock and hatching eggs can be sold within the United States and exported to other countries.

### New Veterinary Services

The new 3500-square-foot (325-square-meter) Veterinary Services building houses the Elkmont internal veterinarians, biosecurity and welfare compliance experts, and farm monitoring staff, representing a team of approximately 20; the company plans to hire additional personnel in response to continued growth. The goal of this team is to continually monitor and safeguard Aviagen internal flocks.

"As we broaden the reach of our business, our commitment is to make sure the best-quality chicks are delivered to our customers, both domestically and internationally. The expansion of our Elkmont facility supports this mission, enabling us to continually improve bird health with leading diagnostic services and monitoring capabilities, modern equipment and the industry's most advanced expertise," reported Dr. Eric Jensen, Vice President of Veterinary Services for Aviagen North America. □

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## Grower Safety Tips: Fire Prevention, Tornadoes and Litter Sheds

TPA board member Darryl Brown, who grows for Aviagen in Lawrence County, highly recommends dry chemical fire extinguishers and a respirator for each set of houses. Josh & Jimi Dee Clark in Bledsoe Co. have an underground tornado shelter in their yard, after luckily being spared from a harrowing experience in 2011. These are things to seriously think about if you haven't already taken action. And please be careful not to stack your litter too high, especially along the walls where the rain comes in. A litter shed caught fire recently and the grower admitted that the litter was 12' high and against the walls. Shawn Hawkins at UT recommends that litter not exceed 6' or be pushed up against the walls where the rain comes in. Thankfully this grower got it stopped before it got out of hand. /dale □

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## Who would be the Ag Secretary under Biden?

While many of us are still waiting for the *official* presidential election results, the media has been discussing what a Biden administration would look like. On Nov. 19, 2020 [Jacqui Fatka](#) had this article posted on [Feedstuffs.com](#), titled “Discussion heats up on who next ag secretary will be”, as follows:

Thoughts are starting to turn to the transition to a Biden Administration and, with it, who could help direct policy that most affects agriculture. Although those within agriculture see the Cabinet-level agriculture secretary as important, the reality is that the position is a second- or third-tier post and could widely depend on who gets nominated earlier.

For agriculture, 17 individuals have been selected to be part of President-elect Joe Biden's transition process, nearly all of whom have experience working at the U.S. Department of Agriculture or other agencies. Of these tasks, personnel recommendations are perhaps the most important. At USDA, the secretary of agriculture and 14 other high-ranking positions are appointed by the President and require confirmation by the Senate. Many other agency leadership positions must be filled during the transitions but do not require Senate approval.

Randy Russell, agricultural lobbyist and leader of the Russell Group, said the USDA transition team is a “reasonable, thoughtful group.” The agriculture secretary pick may end up coming down to geographic considerations and overall Cabinet diversity, Russell said.

Top of the list right now for the agriculture post is former Sen. Heidi Heitkamp of North Dakota, Rep. Marcia Fudge of Ohio and Russell Redding, commissioner of agriculture in Pennsylvania. Other names mentioned include former presidential nominee Sen. Amy Klobuchar of Minnesota and Kathleen Merrigan, the first agriculture deputy secretary in the Obama Administration.

Since her defeat in 2018, Heitkamp has devoted time through her [One Country Project](#) to elevate the need for Democrats to focus on rural America.

However, a coalition of more than 160 environmental, food justice, sustainable agriculture, workers rights, animal welfare, social justice, public health and anti-hunger organizations sent a [letter](#) to Biden, Vice President-elect Kamala Harris and their transition team opposing Heitkamp as a potential nominee for USDA secretary.

“Heitkamp is the wrong choice for the USDA because she has aligned herself with corporate agribusiness at the expense of family farmers, supports fossil fuel interests and holds views that are out of step with the Democratic Party and the majority of Americans,” the letter said.

The letter also pointed out that there are “many other highly qualified candidates, including several women candidates and candidates of color.” Fudge, a longtime member of the House Agriculture Committee and chair of the nutrition subcommittee and previous conservation subcommittee, has also indicated her interest in the position. She would be the first African American woman to become USDA secretary.

In recent days, progressive groups have coalesced around Fudge as the strongest candidate to lead USDA, [citing her leadership](#) on measures to strengthen protections for slaughterhouse workers and her opposition to industry efforts to increase line speeds at processing plants. Fudge has also been an ally of family-scale farms and regional food systems and is an advocate for communities historically underserved by USDA. Fudge was also a vocal critic of the Trump Administration’s plan to slash Supplemental Nutrition Assistance Program (SNAP) benefits, calling it a “war on people in need.”

None of the major commodity groups – including the sometimes more progressive groups like the National Farmers Union and the National Sustainable Agriculture Coalition – have formally endorsed any of the discussed candidates.

Redding, who grew up on a dairy farm, was nominated as Pennsylvania agriculture secretary by Gov. Tom Wolf, a Democrat, and confirmed by the state Senate in 2015. He served a previous term as Pennsylvania agriculture secretary under Gov. Ed Rendell, also a Democrat, from 2009 to 2011. Redding has worked in the Pennsylvania Agriculture Department for a total of 16 years and was also an ag policy adviser to Sen. Harris Wofford, D., Pa.

Many of the most recent agricultural secretaries came into the post serving as a state governor, including current Secretary Sonny Perdue of Georgia, Tom Vilsack of Iowa, Ed Schaffer of North Dakota and Mike Johanns of Nebraska.

Russell said it will be important for the next agriculture secretary to have a good working relationship with Biden so that when there is a disagreement, such as with agricultural biotech approvals, they can go “toe to toe” with the Environmental Protection Agency or the U.S. Department of the Interior. ▢

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## Electronic nose can recognize, predict meat freshness

November 24, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

Researchers at Nanyang Technical University, Singapore have developed an electronic nose able to detect and assess the freshness of packaged poultry, meat and fish.

[Click here for full article](#) ▢



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## University of Guelph slow-growth study results are in

September 10, 2020 in [WattAgNet.com](https://WattAgNet.com) by Roy Graber

### Study examined welfare outcomes of broiler breeds of varying growth rates

At long last, the results of a study that examines welfare outcomes from conventional broiler breeds and slower-growing breeds have been released.

Researchers at the University of Guelph (U of G) in Ontario, Canada, conducted the study.

The short answer concerning the study's outcome was pretty well highlighted in the first paragraph of a press release issued by the university on September 9.

"Raising slower-growing broiler chickens means less efficiency for producers and potentially higher costs for consumers, but it would improve the welfare of millions of birds," the release stated.

While most people in the industry have already known that raising slower-growing broilers would be a less efficient way to produce protein and that the consumer costs for the end poultry products would likely be higher, there was still some question concerning the validity of the claims that slower-growing breeds actually had better welfare outcomes.

"We found that, overall, many indicators of welfare are directly related to rate of growth," said Tina Widowski, professor at the university's Department of Animal Bioscience.

Widowski, according to the press release, led the team of researchers that included a team of university experts in poultry welfare, nutrition, physiology and meat science.

The researchers studied more than 7,500 chickens raised at the U of G Arken Research Station, looking at 16 genetic strains bred for four growth rates. Birds were outfitted with wearable devices similar to Fitbits, and were evaluated for their mobility and activity. The study also included use of an obstacle test that helped the team to compare leg strength among different poultry breeds. Birds were also monitored for their use of enrichments, and were examined for foot lesions and meat quality.

The release stated that faster-growing chickens were less active and mobile, had poorer foot health and had more breast muscle damage.

At the same time, researchers learned that health and welfare issues that were more common 20 years ago, such as skeletal leg muscle problems and heart failure, are no longer prevalent.

"That means breeder selection to resolve those problems has worked," Widowski said.

### Where will the industry go from here?

With the results of this study released, it could be a turning point for the U.S. poultry industry. Or at least it will prompt some integrators to re-evaluate the breeds of birds they use. Some are already going the slower-growing route, while others have expressed a willingness to transition a percentage of their production to such birds.

Slower-growing broilers have been advocated by the Global Animal Partnership (GAP), as well as animal rights groups – some of which are represented on the GAP board. Those groups have lobbied a significant number of businesses to sign pledges to transition their supply to exclusively use breeds and production/processing techniques approved by the GAP. A [commitment tracker webpage](#) shows that more than 180 businesses in the United States and Canada have made such pledges.

The U of G press release says the research team "hopes the study will help poultry breeders and producers to select traits associated with better welfare."

But it's not that simple.

Will the consumers be willing to pay more for the end product if they believe the animals were more comfortable while on the farm? The less-than-stellar demand for cage-free eggs, also promoted as coming from chickens whose welfare was better than caged hens, indicates the majority of them will not.

That, and the added costs of production, are key factors that must be considered.

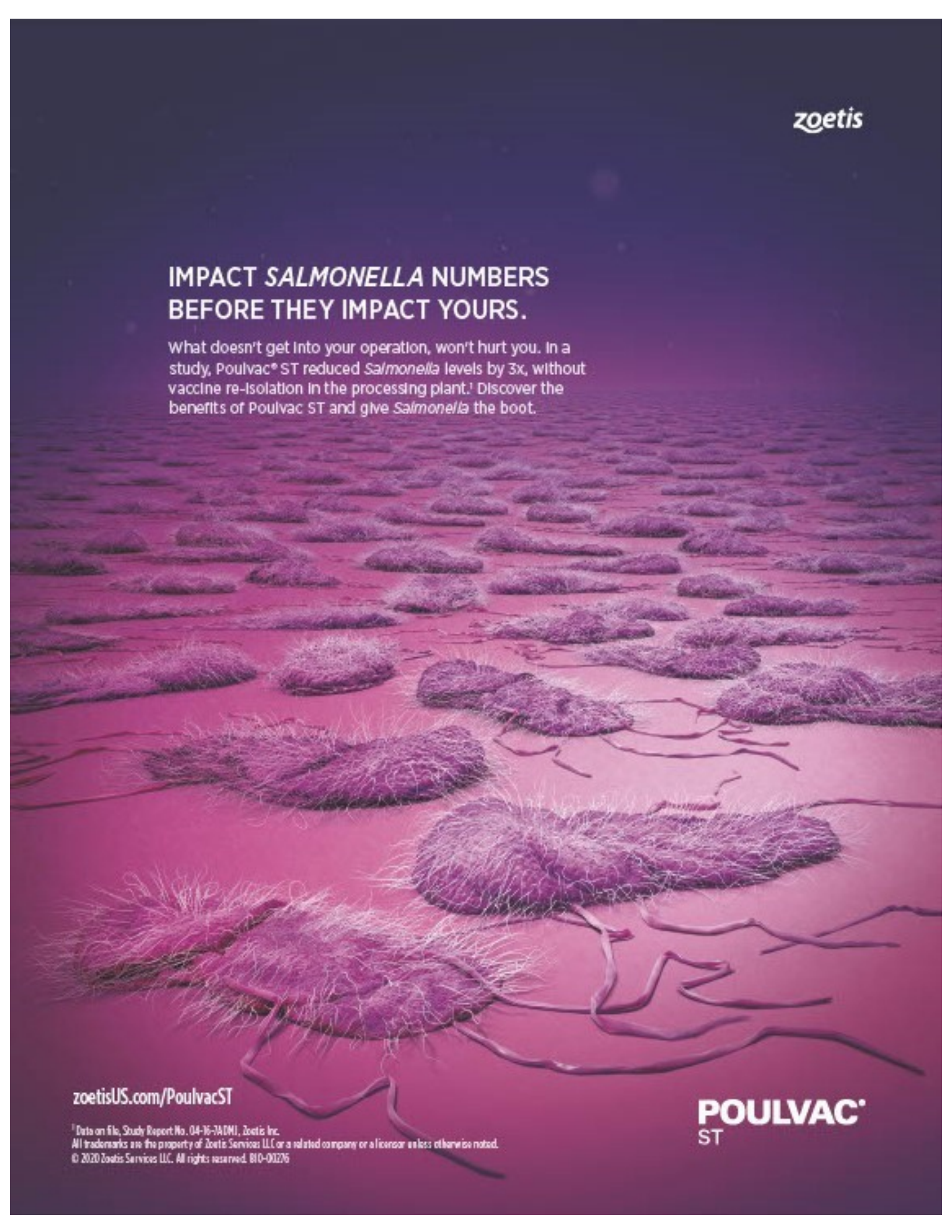
### More information forthcoming

In a separate press release, GAP said a summary of the study results is available on the GAP Better Chicken Project webpage, which represents what it calls "key parts of the research." GAP also said additional analysis and further data will be released.

GAP also said a multi-stakeholder technical working group of experts has been assembled to assist it with drafting protocols for assessing broiler breeds for use in the GAP program.

U of G researchers who worked on the study are now in the process of preparing a series of peer-reviewed articles. It is anticipated that those articles will be published within the next year.

The U of G study was financed by GAP, the U of G Food from Thought project and the Ontario Ministry of Agriculture, Food and Rural Affairs. □

The background of the advertisement is a photograph of a field of purple grass, possibly a coastal or wetland area. The grass is in various stages of growth, with some clumps being more dense and others more sparse. The entire image is overlaid with a purple gradient, which is darker at the top and bottom and lighter in the middle. The Zoetis logo is in the top right corner.

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## What avian infectious bronchitis, COVID-19 have in common

October 1, 2020 in [WattAgNet.com](http://WattAgNet.com) by Elizabeth Doughman

**The two coronaviruses cause upper respiratory diseases in the animals they infect.**

COVID-19 dominated news headlines in 2020, but the poultry industry is very familiar with another coronavirus called infectious bronchitis, Dr. Mark Jackwood, Department head and Professor in the Department of Population Health, Poultry Diagnostics and Research Center at the University of Georgia explained.

“Coronaviruses can cause a wide variety of diseases. Most of them are respiratory in nature. COVID-19 and avian infectious bronchitis both cause respiratory disease. Some viruses cause enteric disease or neurologic disease,” Jackwood said on September 29 during the Delmarva Poultry Industry (DPI) 55<sup>th</sup> National Meeting on Poultry Health, Processing, and Live Production.

### What are coronaviruses?

The poultry industry has dealt with coronavirus infections for a long time. Infectious bronchitis is one strain that has caused global widespread losses in poultry flocks.

“Coronaviruses are the largest single-stranded RNA virus. They have spikes on the outside, which are really important for how the virus produces disease,” Jackwood said.

“The spike protein allows these viruses to bind to the host cell receptors. But not all coronaviruses use the same host cell receptor. COVID-19 and SARS use the ACE2 receptor. Infectious bronchitis uses the Sialic acid receptor.”

### Coronaviruses are host specific

Although coronaviruses can be found in numerous species, people should remember that the virus is highly host specific. Several studies have shown that it is highly unlikely that poultry and livestock can be infected with COVID-19.

“For the most part, coronaviruses are and can be fairly host specific. However, when animals have similar receptors, they can be infected with the disease. For examples, bats, minks and ferrets can all be infected with COVID-19,” said Jackwood. “Because of the receptor specificity, livestock, poultry and their products are not considered a source of COVID-19 infection in humans.”

### Four similarities

Jackwood shared four similarities between infectious bronchitis and COVID-19:

- Both are upper respiratory diseases.
- Morbidity in bronchitis is almost 100%. We’re learning very quickly that COVID-19 is very infectious as well.
- Mortality (the rate of disease in a population) can vary quite a bit in infectious bronchitis. This usually results from secondary bacterial infections that can complicate the disease. The mortality variability that we see with COVID-19 in humans has a lot to do with preexisting conditions, such as diabetes, obesity and heart disease.
- Typical of upper respiratory tract diseases, symptoms include coughing, difficulty breathing, a lot of congestion in the trachea and the sinuses, tracheal lesions, sore throat, headaches and both of these viruses can also cause diarrhea. □

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## Can we predict a meat processing plant COVID-19 outbreak?

November 2, 2020 in [WattAgNet.com](http://WattAgNet.com) by Elizabeth Doughman

A new automated, mobile white blood cell differential test could identify meat processing plant workers likely to test positive for COVID-19.

[Click here for full article](#) □

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## NAMI, food associations ask for priority on COVID-19 vaccine

November 13, 2020 in [MeatPoultry.com](http://MeatPoultry.com) by Eric Schroeder

Groups make plea in Nov. 11 letter to President Donald Trump.

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## Studies in 32 Million Birds Show Returns on Vaccinating Broilers for E. coli

October 22, 2020 in [PoultryHealthToday.com](https://poultryhealthtoday.com)

Vaccination has been shown to protect broilers from Escherichia coli infection, but is introducing a new vaccine worth the cost? According to studies involving millions of birds in the US and Italy, the answer is a resounding yes, said Silvia Alberti, DVM, poultry technical manager at Zoetis.

[Click here for full article](#) □

## Genetics Breakthrough Could Help Treat Marek's Disease

October 2, 2020 on [ThePoultrySite.com](https://thepoultrysite.com)

Researchers at the University of Edinburgh's Roslin Institute have identified regions of chicken DNA associated with resistance to Marek's disease. Scientists say the discovery, reported in the journal Genes, could pave the way to new therapies or techniques to manage the condition, which costs the global poultry industry some \$2 billion every year. The findings also reveal details behind susceptibility to the virus, which could lead to more precise selective breeding strategies.

[Click here for full article](#) □

## Interrupting Cholesterol Pathway Reduces Marek's Disease Spread

October 30, 2020 in [FeedStuffs.com](https://feedstuffs.com)

In a new discovery, scientists from The Pirbright Institute in the U.K. confirm that cholesterol production and transport play a crucial role in how Marek's disease virus (MDV) infects poultry cells. The Pirbright researchers also found that inhibiting a protein involved in this pathway can reduce virus replication and spread among cells. These results pave the way for the design of new antivirals and vaccines that interrupt the cholesterol pathway to prevent shedding and transmission of the virus among birds, the institute said in an announcement.

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## Study: No link between line speed, Salmonella contamination

October 29, 2020 in [WattAgNet.com](https://www.wattag.net) by Elizabeth Doughman

Faster line speeds in poultry processing plants do not increase the risk of Salmonella contamination, finds new research published in Poultry Science.

[Click here for full article](#) □

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## Biosecurity focus in NAE farms could lower Salmonella risk

November 3, 2020 in [PoultryHealthToday.com](https://poultryhealthtoday.com)

Salmonella levels in no-antibiotics-ever systems could be lower than those on conventional broiler farms, researchers at the University of Georgia have discovered.

Estefania Novoa Rama, a graduate research assistant, said better biosecurity and a sharper focus on management could be responsible for the reduced prevalence she identified in a study of four broiler farms.

[Click here for full article](#) □

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## S. Heidelberg load reduced in chicks treated with acidified water the first 2 weeks of life

November 19, 2020 in [PoultryHealthToday.com](https://poultryhealthtoday.com)

Chicks that received acidified water for the first 2 weeks of life had a significantly reduced load of *Salmonella* Heidelberg, a challenge study demonstrates.

[Click here for full article](#) □

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## Why Mycotoxins Matter in Broiler Production

October 22, 2020 in [Biomin.net](https://biomin.net) by Lorrán Baeumle Gabardo

The negative impacts of mycotoxins in poultry can be far-reaching, decreasing gastrointestinal integrity, immunity and performance in broilers and resulting in economic losses. Given the high rates of mycotoxin in poultry feed, a mycotoxin risk management strategy is needed to protect fattening animals in all phases in order to reduce the challenges in the animal and ensure profitability of production.

[Click here for full article](#) □

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## Researchers Extract Antibiotics from Animal Products

October 17, 2020 in [WattAgNet.com](https://www.wattag.net) by Emma Penrod

Scientists experimenting with an emerging class of solvents, called supramolecular solvents, believe the substance holds promise as part of a new method to extract antibiotics from animal products.

[Click here for full article](#) □

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## How to get drinking water vaccination right?

December 2, 2020 in [PoultryWorld.net](https://poultryworld.net) by Fabian Brockotter

Preventing incoming infections is essential to avoid diseases on a poultry farm. Proper biosecurity measures are the first line of defense, but are no guarantee for a healthy flock. Protection via an alerted immune system is the all-important second line of defense.

[Click here for full article](#) □

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## Co-infection increases avian colibacillosis fatality rate

November 30, 2020 in [WattAgNet.com](https://www.wattag.net) by Elizabeth Doughman

A new study published in Avian Pathology has revealed that colibacillosis has a higher rate of fatality in poultry when the birds are also infected with a particular strain of Enterococcus.

[Click here for full article](#) □

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## Emerging disease trends come under focus in latest version of industry 'bible'

November 30, 2020 in [PoultryHealthToday.com](https://poultryhealthtoday.com)

Health challenges associated with antibiotic-free production and the growing issue of wooden breast syndrome in broilers are two emerging trends to appear in the latest edition of *Diseases of Poultry*.

Referred to by the industry as "the bible of poultry diseases," the 14<sup>th</sup> edition of the textbook has been updated to reflect evolving health and management challenges facing producers today.

[Click here for full article](#) □

## Propane Update

**Dec. 1, 2020 SPOT PRICING:** Mont Belvieu Propane Spot Price on Nov. 23, 2020 was at a current level of \$0.525/gal., which is very similar to what it was this time last year. The lowest price for this calendar year occurred March 23 at \$0.203 and the highest price seen was \$0.564 on Nov. 4<sup>th</sup>. Prices have stayed fairly steady over the past 6 months having a 5 to 10 cent variation during this time.

Allowing for an average of \$0.41 per gallon for tariffs, handling and delivery to most areas, **the average current retail price is roughly \$0.935/gal.** Larger accounts can often negotiate a lower price agreement by as much as \$0.05/gal., or more.

Did anybody get locked in on the low 20+ cent spot price with guaranteed delivery back in March for around \$0.62/gal. or even less? To follow Mont Belvieu spot pricing go to [https://ycharts.com/indicators/mont\\_belvieu\\_propane\\_spot\\_price](https://ycharts.com/indicators/mont_belvieu_propane_spot_price).

For an update on FMCSA motor carriers emergency waivers through Dec. 31, 2020 for go to <https://www.fmcsa.dot.gov/COVID-19>.

To learn more about the Propane Farm Incentive program that can provide up to \$5000 toward the purchase of new propane powered farm equipment click [here](#). □

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## USDA updates the National Poultry Improvement Plan

On October 2, 2020, from the NCC

The United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) is updating the National Poultry Improvement Plan (NPIP) to align with changes in the poultry industry and to incorporate new scientific information and technologies into the NPIP, according to a stakeholder announcement released yesterday.

The final rule is on display in the [Federal Register](#). In this update, APHIS is:

- creating a new U.S. Newcastle Disease (ND) Clean program;
- updating low pathogenic avian influenza regulations on indemnity and compensation;
- creating an NPIP subpart specific to the game bird industry; and
- clarifying and updating the program regulations to match current scientific information and technologies.

These updates were approved by representatives from across the poultry industry at the 2018 NPIP Biennial Conference.

In response to these changes, NCC Senior Vice President of Regulatory and Scientific Affairs, Ashley Peterson, Ph.D. noted, "NCC is supportive of the Newcastle Disease (ND) Clean program, and in addition, knowing expectations around LPAI indemnification/compensation is also helpful."

The ND Clean program and compartment status will focus on primary breeder egg-type chickens, meat-type chickens, and turkeys – the animals that provide the foundation for the industry. Through the program, owners can show that their flocks meet all requirements to be considered unaffected by ND by both the Official State Agency and APHIS. The requirements for ND Clean compartments are similar to those in the AI Clean compartments. This allows clean flocks to participate in international and interstate trade, even during a ND outbreak. This benefits not only the flock involved, but the overall industry, by keeping trade flowing.

APHIS is updating the NPIP regulations on indemnity and compensation payments for low pathogenic avian influenza detections so they reflect current policy and operational practices. The rule adds/clarifies definitions for various terms related to providing payments for animals, materials, cleaning and disinfection, and other steps needed for infected farms to return to normal business.

APHIS is creating an NPIP subpart specific to game birds, an industry that has grown rapidly and become more complex since its inception. The new subpart aligns with the terminology, production methods, and end uses in the industry, which are significantly different than those in other poultry industries. The new subpart adds testing regimes, terminology, and programs specifically designed for the game bird industry.

APHIS made two changes to the proposed rule. The agency is in the process of standardizing fair market valuations across species, so the language was updated to remove the requirement for use of indemnity calculators. APHIS also added a clarification explaining that a Virus Elimination calculator will not be used when the claimant and APHIS jointly agree the VE calculator is not applicable to the premises type.

The [rule](#) becomes effective 30 days after publication in the Federal Register.

*The NPIP is a cooperative Federal-State-industry mechanism for controlling certain poultry diseases. NPIP's objective is to provide a cooperative program through which new technology can be effectively applied to improve poultry and poultry products throughout the country. NPIP offers a variety of programs and identifies States, flocks, hatcheries, dealers, and slaughter plants that meet disease control standards specified in the various NPIP programs.* □

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## U.S. Department of Transportation Federal Motor Carrier Safety Administration Issues Interim Final Rule on Agriculture Hauling Hours Exemption

The Federal Motor Carrier Safety Administration (FMCSA) clarifies the definition of the terms "any agricultural commodity," "livestock" and "non-processed food," as the terms are used in the definition of "agricultural commodity" for the purposes of the Agency's "Hours of Service (HOS) of Drivers" regulations. Under current regulations, drivers transporting agricultural commodities, including livestock, from the source of the commodities to a location within 150 air miles of the source, during harvest and planting seasons as defined by each State, are exempt from the HOS requirements. Furthermore, the HOS requirement for a 30-minute rest break does not apply to drivers transporting livestock in interstate commerce while the livestock are on the commercial motor vehicle. This interim final rule (IFR) clarifies the meaning of these existing definitional terms to ensure that the HOS exemptions are utilized as Congress intended.

[Click here for full article](#) □

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## Can exoskeletons improve poultry processing worker safety?

November 20, 2020 in [WattAgNet.com](http://WattAgNet.com) by Elizabeth Doughman

**Work-related musculoskeletal disorders account for one-third of all worker injury and illness cases.**

Exoskeleton technology could help minimize workplace injuries and worker fatigue at poultry processing plants.

"In the meat processing industry, it's very labor-intensive," said Michael Pratt, Vice President Sales and Business Development, [Ekso Bionics](#). Exoskeletons could be a "solution for the wear and tear and potential soft tissue injuries" experienced by poultry processing workers, he added.

### Increased strength and endurance

Exoskeletons are lightweight wearable robotics designed to increase strength and endurance. Initially, exoskeleton technology was designed for use in hospitals to help patients rehabilitate after a stroke or a spinal cord injury, although exoskeletons have also been developed for soldiers to decrease fatigue and increase productivity on the battlefield.

For industry applications, like in poultry processing, lightweight exoskeletons can assist with shoulder flexion-extension movements, reducing worker fatigue and decreasing the likelihood of musculoskeletal disorders (MSDs) in the workplace through ergonomics.

Ergonomics can be defined as a working environment where an employee can perform his or her function comfortably and efficiently with the least amount of fatigue. Work-related MSDs are among the most frequently reported causes of lost or restricted work time, accounting to one-third of all worker injury and illness cases, according to the Bureau of Labor Statistics (BLS).

"Fatigue is a well-known established problem when the work is very labor-intensive and repetitive. If we think of fatigue as a bullseye, we know that what correlates to fatigue is soft-tissue injury, morale and absenteeism," Pratt explained.

"The other benefit of exoskeletons is that they can help drive predictable productivity. When things become challenging or a worker becomes fatigued, sometimes the productivity and quality of work can taper off. If we can mitigate fatigue, we know that we can actually help organizations in health and safety, employee morale, retention, absenteeism and, ultimately, productivity."

The technology is currently being piloted in food production by [Cloverdale Foods Company](#), a fourth generation, family-owned meat company based in Mandan, North Dakota. ▢



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## Collaborative robots could prevent future labor shortages

November 23, 2020 in [WattAgNet.com](https://www.wattag.net) by Elizabeth Doughman

The COVID-19 pandemic highlighted a need for automation innovation in the poultry industry.

Collaborative robotic technology could help [future-proof poultry processing against COVID-19](#) by minimizing the number of repetitive tasks required to be performed manually by workers.

Three robotics and technology experts shared insights on how collaborative automation can build resilience and reduce risk during [Manufacturing: The Next Generation — Through Collaborative Automation](#). The discussion, hosted by the Association for Advancing Automation (A3) on November 19, 2020, featured:

- Mark Cuban, CEO of Dallas Mavericks, founder of [Shark Tank](#)
- Enrico Krog Iversen, CEO, [OnRobot](#)
- Rob Goldiez, CEO and Co-founder, [Hirebotics Robotics](#)

### Where do they fit in processing?

Collaborative robots, also known as cobots, are designed to work safely alongside human workers. Typically, the robot is responsible for any repetitive task, [freeing up the human worker](#) to perform more complex, thought-intensive tasks.

“We’ve seen over the years that there’s clearly an interest in automation and robotics. But there’s a fear of something new. Some companies go too far. They want to automate everything. I always advise people to start with the simple, the easy, the dull. Go with the things that your people are always complaining about doing,” said Goldiez. **“Let the humans do the human work and let the robots do the robot work.”**

### Why now?

The poultry and meat processing industry – along with many other jobs that require repetitive manual labor – had already been moving toward automation. The [COVID-19 pandemic accelerated that trend](#).

“If we look at it from a COVID-19 perspective, there are two things that will really drive automation forward and upward. First, with the collaborative applications, you can maintain your social distancing,” explained Iversen.

“But I think what we will also see, and are already starting to see, is that a lot of companies were too dependent on one or two suppliers in one region of the world. I think what you’ll see is that a lot of companies are rethinking their supply chain strategy and when they do that, they will also spread their manufacturing out.”

A number of meat and poultry plants were forced to temporarily close this spring in an effort to stop the spread of the virus.

“When you look at what’s been happening during the pandemic, we’ve had to adjust. There are so many changes in how consumers consume and how manufacturing is being looked at. I think **this change has created an opportunity for world-class companies to be creative**,” Cuban said. ▢

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## How to prevent floor eggs?

November 25, 2020 in [PoultryWorld.net](https://www.poultryworld.net) by Fabian Brockotter

### 6 risk factors for floor eggs explained

1. Not enough training to move between levels: If the hens have not learned to move between different heights during rearing, they will not move between levels in an aviary system and will not go to the level where the nest boxes are located during lay. Thus, it is best that the housing systems in rearing and laying units are as similar as possible.
2. Shady spots: If there are spots in the house that are dark or in a shadow, increase the light intensity or provide supplementary lighting. It is also useful to incorporate a dimming phase at the start of the day. Some laying hens feel a need to lay their egg before the light goes on. Those eggs land on the grids, often very close to the nest box.
3. Nest boxes that are difficult to access: Birds have difficulty passing each other when looking for a nest. Resting hens can block the nest box entrances. Install more perches or a grill in front of the nest boxes, so that the hens are able to pass each other and see which nests are occupied.
4. Attractive litter: A thick layer of litter is good for hens, but it also invites them to lay there. Preventing laying in the litter by using sufficient illumination and collecting any eggs there as quickly as possible. Disturb hens if they are laying floor eggs. Carry out multiple inspection rounds early in the morning with young flocks at start of lay.
5. Draught in the nest boxes: You can check if there is a draught in the nest box by wetting a hand and holding it in there. If the space under the nest is cold, negative pressure can cause a draught. Hens do not like draughty conditions so they will go elsewhere. You can solve this problem with an airtight plate under the nest boxes. Incoming airflow is another possible cause of draughts.
6. No water in front of the nest box: If there is no water available in front of the nest, the hens will be less attracted to them, and might lay their eggs elsewhere. Check regularly that the water supply is working as it should. ▢



## Could split-feeding improve broiler breeder performance?

October 5, 2020 in [WattAgNet.com](http://WattAgNet.com) by Elizabeth Doughman

### Feeding laying hens twice a day can lead to more efficient nutrient intake.

Split-feeding – where hens are fed two different feeds per day – could help improve feed costs, breeder performance and overall sustainability.

“Basically, split-feeding is a precision feeding system that provides the appropriate nutrient supply for layer hens. Split-feeding better supplies the breeder’s needs because it considers the different needs of the layer hens throughout the day according to the egg formation process,” explained Felipe Sanchez Fernandez of [Trouw Nutrition](http://Trouw Nutrition).

“The diet in the morning focuses on the requirements of the layer hens, while the diet in the afternoon focuses on the nutrients needed for eggshell formation.”

Research center studies revealed that when laying hens can self-select nutrients, they take in more protein and energy in the morning and have a higher intake of calcium later in the day. This suggests that the birds may be able to use these nutrients more efficiently when consumed in periods of the day when the requirements are highest.

### The benefits

Improving the efficiency of nutrient use could offer many benefits to broiler breeders, including improvements to eggshell quality which can lead to increases in the number of hatched eggs and additional chicks per broiler breeder. Split-feeding can also lower feed cost for the birds, improve feathering, reduce pecking and other behaviors that can indicate hunger.

“There are many benefits to split-feeding. First, there are financial benefits because this system reduces feed costs. It can also improve breeder performance and result in more chicks per hatch. The second group of benefits is in welfare because split feeding decreases feelings of hunger, improving satiety and reducing pecking activity,” Sanchez Fernandez said.

Split-feeding can also improve the sustainability of poultry production due to this more accuracy nutrient supply. As the breeder’s hens consume less and use needed nutrients more efficiently, this approach leads to minor excretion of nutrients by feces and reductions in CO<sub>2</sub> emissions. ▢

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## Leading causes of wet litter issues

September 30, 2020 information from [PoultryWorld.net](https://poultryworld.net) by Fabian Brockotter

Did you know that subclinical coccidiosis, Gumboro and infectious bronchitis are leading causes of wet litter issues? In [PoultryWorld.net's](https://poultryworld.net) article "How to ensure litter quality?", the author discusses the importance of the moisture absorbing properties of the litter because once litter gets too wet, it's difficult to get right again. The consequences of wet litter are cold spots, bacteria development, breast blisters and footpad lesions as well as respiratory problems due to high ammonia concentrations.

### 7 causes of wet litter:

1. (Subclinical) [coccidiosis](#) is the most common cause of bacterial enteritis, which is the most common cause of wet litter issues
2. Other health problems can cause very loose droppings, e.g. [Gumboro](#) and infectious bronchitis (IB); certain strains affect the kidneys, resulting in extremely wet litter
3. Poorly maintained (leaky) drinking water systems
4. Inadequate water absorption caused by loose droppings containing a lot of water or poor choice of litter material
5. Improper ventilation or inadequate heating: cold air settling too quickly or dam air not being removed effectively
6. Differences in light intensity. You often find poor quality litter in places with a higher light intensity. The broilers are more active there and defecate more in that area, causing the litter to become wet and compacted
7. Too high mineral or salt content in the drinking water and/or feed causes broilers to drink more, which automatically makes the litter wetter.

[Click here for full article](#) □

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## Enriching the environment for broilers using a laser device

October 22, 2020 in [PoultryWorld.net](https://poultryworld.net) by Matthew Wedzera

Devices or strategies that improve environmental enrichment might motivate broilers for better movement and feeding.

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## Longer Feeders Lead to Better Plumage

October 26, 2020 in [AllAboutFeed.com](http://AllAboutFeed.com) by Rick van Emous and Annemarie Mens

Research shows that hens that are 50% bald take up almost 20% more feed compared to laying hens with intact plumage. The condition of a breeder hen's plumage is important for her internal thermal regulation. Hens with bad plumage are not well insulated which causes them to take in more feed. This leads to suboptimum feed conversion.

[Click here for full article](#) □

## Improving Yellow Skin Pigmentation in Broilers Fed AGP-Free

November 16, 2020 in [PoultryWorld.net](http://PoultryWorld.net) by Yvonne van der Horst

When reducing or eliminating antimicrobial growth promoters (AGP) in poultry production, producers must pay careful attention to feed, farm and health challenges. In some regions, producers face an additional challenge: achieving skin pigmentation levels desired in the marketplace. Failing to achieve adequate levels of yellow pigmentation can result in lower value end products.

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[facebook.com/ecodrumcomposter/videos](https://facebook.com/ecodrumcomposter/videos)

## How to identify cause of mortality?

October 14, 2020 in [PoultryWorld.net](http://PoultryWorld.net) by Fabian Brockotter

Most losses usually occur in the first 7 days. Carry over effects from the quality of the breeding flock and hatching conditions will flare up sooner rather than later. Good care is all the more important for weak chicks as they will easily keel over.

If there is mortality it is essential to remove dead birds on a daily basis and determine what level of losses you have at what time during the cycle. The mortality pattern in the first few weeks gives you a clear signal about your management.

### Distinguish between death from individual causes and infection of the flock

When removing dead chicks, try to figure out the cause of the mortality. Are they located in particular places in the house? Are they male or female chicks? Are they already diseased or did they die sudden? And most important: make sure to distinguish between death from individual causes and infection of the flock.

### 6 characteristics of dead chicks and their possible causes

1. **Lying on the stomach or back:** Metabolic disorder with a high incidence between 2 and 5 weeks. Try to resolve with feed management interventions.
2. **On the back with wings splayed and often with one foot in the air:** Sudden death syndrome (flip-over). The young chicks heart stops, it jumps up and falls dead on its back. Slow down growth slightly with lower light intensity until the mortality rate is below 0.05% per day.
3. **Well developed, with full crop:** Chicks at older age suffering from excessive strain on the heart, or inflammation of the heart wall or valve
4. **Moderate to poor condition, stomach full of liquid:** **Ascites** from the age of 3 weeks onwards. These chicks are susceptible to heat stress. Check CO<sub>2</sub> levels in the house. During next cycle restrict growth, ensure air circulation and prevent day-night temperature fluctuations.
5. **On the stomach, neck forward and feet back:** Choking. Birds have been choked by a plug of inflamed material in the top of the respiratory tract as a result of virus infection or severe reaction to vaccination.
6. **Seal position, on the stomach, feet back, neck stretched, beak slightly open and often with a morsel of litter in the beak:** Botulism (rare) or by an overdose of ionophoric anticoccidial agents or **necrotic enteritis**. □



## Israeli start-up Soos tackles culling of male chicks

Oct. 6, 2020 in [PoultryWorld.net](#) by Rebecca Kwak

**Israeli start-up Soos developed a technique to alter the sex of embryos from male to female in the hatchery.**

Every year, the global egg industry produces 15 billion chicks. Half of them are female and grow up to be functional layers, but the other 7.5 billion are males and are culled, leading not only to major ethical and animal welfare concerns, but also to lost revenue and missed potential.

As increasingly more countries are [banning the culling of male chicks](#) and [the worldwide egg production increases](#), finding a solution to end this controversial practice is becoming more and more of a hot topic for the poultry industry. Soos CEO Yael Alter tells Poultry World how Soos hopes to contribute to a more sustainable future for the egg industry.

### About the start-up

“We raised our first funds in early 2017, and the first thing we did was to establish our own full site,” Alter says. Coming from the industry, Alter is no stranger to building poultry housing, which was instrumental in the start-up’s first days: “We built a small commercial hatchery of 5000 eggs, then we went on to build a pullet house and retrofitted the coops. We had a layer house of 80,000 birds – which is big, by Israeli standards – and now, we have the full cycle,” she says. Because of their focus on sound vibration, Soos’s incubators are very quiet. “The first thing we discovered is that you can actually sit next to the incubators, which is wonderful, because incubators are usually very loud, which isn’t very healthy for those working with those machines,” Alter adds. “3 incubators are currently operating, and it’s quiet. You don’t hear any noise.

“We developed an acoustic cell so that we could measure the sound inside of the incubator,” Alter explains. “Our next goal is to run pilots outside of Israel because our ability to grow here is a bit limited. We need more professional integration to scale up what we are doing here.”

### Sex reassignment in the egg

“Most companies that focus on the problem of culling male chicks are doing sex detection by means of embryonic scanning in the first couple of days. From an animal welfare perspective, you would need to destroy the egg before the 7th day, and this is very challenging,” Alter explains. Instead of detecting whether an egg is male or female, Soos’s technology transforms genetic males into functioning females, thereby not only addressing concerns about animal welfare, but also tapping into the missed potential of the egg industry, as egg-sexing still involves the destruction of 50% of the production.

Furthermore, some other innovations work by genetic modification of the parent stock, which is not accepted in many places in the world. “We are not using any kind of chemical that will affect the eggs; instead, we transform the embryo through sound vibration and through changing the environmental conditions in the incubator. It is well known that sound affects cells, as this technology is also used in medicine and even in cancer treatment. This is precisely what we are doing: we are affecting the cells and thereby defining the sex of the embryos,” Alter explains. So far, Soos has achieved a 60% female hatching rate. They hope this percentage will increase to 80% in the coming years.

“Of course, we did DNA testing to prove our concept and to explain what we are doing, and so we found out that we have females with ZZ (male) chromosomes,” Alter explains. “One of our goals for 2021 is to do more research, we have some partners in mind to do so on an academic front. We want to research how sound vibrations affect the cell culture and for that, our facility is not enough. We need an institute to help us with that.”

### Planning for the future

“Due to the coronavirus, our pilots outside of Israel have been slowed down, but we hope to target Europe in the near future, followed by the US,” Alter continues. “Our main goal for the near future is to run more pilots outside of Israel, which will help us to improve our hatching protocol and get better results than we are getting now. In the future, I see Soos as living in the poultry industry. I think the ability to reassign sex will change the world.” □

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## Egg sexing technology uses hyperspectral measurement

October 26, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

Automated imaging technology developed in Germany could reduce or even eliminate the culling of male chicks at layer farms.

[Click here for full article](#) □

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## World’s first cultured chicken restaurant opens in Israel

November 13, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

Consumers interested in trying cultured meat can finally do so at The Chicken test kitchen in Tel Aviv, Israel, the world’s first foodservice location serving a lab-grown meat product created with chicken cells.

[Click here for full article](#) □

## Could lower growth medium cost make cultured meat practical?

September 8, 2020 in [WattAgNet.com](https://www.wattag.net) by Elizabeth Doughman

The Cultivated Meat Modeling Consortium is tackling one of the biggest barriers to bringing cultured meat to the consumer marketplace: the high cost of the growth medium.

[Click here for full article](#) □

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## Beyond Meat to build manufacturing facility in China

September 9, 2020 in [MeatPoultry.com](https://www.meatpoultry.com) by Kimberlie Clyma

This will be the first plant-based protein production plant in the country.

[Click here for full article](#) □

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## Beyond Meat debuts plant-based sausage links

October 8, 2020 in [MeatPoultry.com](https://www.meatpoultry.com) by Rebekah Schouten

The meat alternative company has launched four new products in 2020.

[Click here for full article](#) □

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## Beyond Meat Share Price Tumbles

November 10, 2020 in [Drovers.com](https://www.drovers.com) by Greg Henderson

Beyond Meat's stock prices dropped rapidly this week when it became apparent the company would not meet investors' or the company's expectations for profitability anytime soon.

[Click here for full article](#) □



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## Tesco commits to 300% increase in meat alternatives sales (blog)

October 6, 2020 in [WattAgNet.com](#) by Mark Clements

Leading retailer Tesco commits to targets for raising sales of plant-based meat alternatives, while Asda significantly expands range.

[Click here for full article](#) □

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## Plant-based chicken brand closes \$8 million funding round

October 7, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

**Manufacturers have struggled to create a meat alternative that has the taste and texture of poultry.**

daring, a clean plant-based chicken manufacturer, has closed an \$8 million funding round, with plans to use the money for retail and foodservice expansion and to launch a new breaded product.

“At daring we’ve been able to create the cleanest plant-based chicken on the market that gets as close as possible to the taste and texture of the real thing,” said daring’s CEO and Co-Founder, Ross Mackay.

“We are excited to have attracted a group of investors that have been involved in building monumental consumer businesses and we will leverage this investment to continue our growth in an ever-changing, competitive landscape. This gets us a huge step closer to mitigating the negative impact of the poultry industry on the planet and human health.”

Plant-based proteins went mainstream in 2019, however the majority of meat alternatives available on the market are designed to taste like beef or pork. This is because it is much more difficult to mimic the taste and texture of poultry.

### The investors

Venture capitalist brand Maveron led the investments. Additional investors included GoodFriends (from the founders of Allbirds, Harry’s and Warby Parker), Stray Dog Capital, Palm Tree Crew Investments (Kygo and Myles Shear), and private investors including Mike Smith (CFO of Stitch Fix) and Brian Swette (former Chair of Burger King). □

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## Industry Groups Call for Mandatory Labeling of Cell-Based and Cultured Meat Products

October 19, 2020 in [Drovers.com](#) by Katie James

The North American Meat Institute and the Alliance for Meat, Poultry and Seafood Innovation call on the USDA for mandatory labeling and input on what the labeling should look like.

[Click here for full article](#) □

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## Are plant-based proteins an opportunity or a threat?

October 28, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

Sales of plant-based proteins are still miniscule in comparison to traditional proteins; however the market is rapidly growing.

[Click here for full article](#) □

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## Tyson expands its plant-based brand to Europe

November 9, 2020 in [MeatPoultry.com](#) by Joel Crews

The Raised & Rooted products are manufactured in the Netherlands for retail and foodservice.

[Click here for full article](#) □

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## Unilever increases focus on meat alternatives

November 19, 2020 in [MeatPoultry.com](#) by Keith Nunes

The company has set a goal of \$1 billion in sales for meat and dairy alternatives in the next five to seven years.

[Click here for full article](#) □

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## Aleph Farms moves closer to commercial cultivated steak

November 25, 2020 in [WattAgNet.com](#) by Elizabeth Doughman

Aleph Farms has unveiled an upgraded prototype of the first cultivated thin-cut beef steak product designed for mass production and cultivation, a move that could speed cost parity between cultured meat and conventional meat.

[Click here for full article](#) □

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## The Ag Watchdog Newsletter

**November 7, 2020**

### **Meat Tax Pushed in UK**

A coalition including major medical journals is calling on the UK to [tax meat by 2025](#) unless the meat industry "voluntarily" makes concessions. Among their demands is for environmental messaging on food products and an increase in consumption of plant protein, claiming that "red meat consumption will need to be cut by half if the food system is to stay within sustainable environmental limits." Since when did the health sector dictate environmental policy?

**November 14, 2020**

### **Fake Meat Activist on Biden USDA Transition**

Joe Biden has named Sanah Baig for his [USDA transition team](#). Baig is currently the chief of staff at the Good Food Institute, an advocacy group for fake meat that was founded by a longtime [animal rights activist group] executive. Baig previously worked in the USDA under the Obama Administration.

### **McDonald's Announces Plant Burger; Beyond Meat Disappoints**

This week McDonald's announced it will be offering a plant-based burger called [McPlant](#). The company will test the product next year in select markets. Although McD's worked with Beyond Meat in developing this new offering, McD's [does not currently have a partnership with Beyond Meat](#) on this latest venture. Beyond Meat's shares fell this week on [subpar quarterly results](#). □

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## Vegan butcher's shop opens in London

November 6, 2020 in [WattAgNet.com](#) by Mark Clements

The first permanent vegan butcher shop has opened in London. Yes, you read that correctly, a vegan butcher shop.

While pop-ups and other temporary vegan butchers have come and gone in the U.K., Rudy's Vegan Butcher, based in the London borough of Islington, is thought to be the first permanent plant-based butcher's shop.

Perhaps unsurprisingly, it operates from one of the most gentrified areas of Islington – home to former prime ministers, actors and authors. Opening on World Vegan Day on November 1, the first day of trading resulted in huge queues and the shop sold out. Not everyone, however, was quite so welcoming towards the new arrival on the borough's main street, with some suggesting that it was nothing more than a green grocer and others describing it as ridiculous.

But there is no denying that Rudy's has done well and it reports continuing brisk sales.

The newcomer follows in the footsteps of Rudy's Vegan Diner, which has been in operation in neighboring borough Camden since 2018, and, in addition to its own vegan range, the butcher is also offering some of the diner's favorites.

### **What's on the block?**

So what's in store at, what appears, at first sight, to be a traditional butcher's shop?

Its range includes pastrami, dirty burger patties, cheese sauce and chilli-non-carne. Taken from the diner's menu are: rack of jack, lobster salad, meatballs, chick'n lover pate and shredded BBQ pulled pork. For anyone thinking ahead to Christmas, the shop is also offering roast turk'y.

On opening day, the butcher celebrated by giving away pounds of free vegan bacon and, for those unable to shop in person nationwide, delivery of its plant-based products is also available. Illustrative of the strong interest in these vegetable offerings, both the physical shop and the online service sold out on the first day of business.

All the products sold at the butcher are their own creations, conjured up by chef and co-owner Matthew Foster. Foster has been working in kitchens since the age of 14, including in 5-star establishments around the world, and has even catered to royalty. Meat, however, has not been part of his menu for a number of years and this resulted in him veganizing his favorite meals – testing, experimenting and redefining the boundaries of plant-based food.

Plans are afoot to expand Rudy's further, and only time will tell whether the butcher is simply a flash in the vegetable-oiled pan or whether it carves out a long-lasting niche, but the timing of the opening could not have been better.

A study published by market research company Mintel earlier this year found that, since the emergence of the COVID-19 pandemic, vegan diets have become more attractive to 12% of U.K. citizens, while in London that figure has risen to 22%. □

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## Singapore first country to approve sale of cultured meat

December 2, 2020 in [MeatPoultry.com](#) by Joel Crews

Eat Just's cell-based chicken will be the first product available with plans to expand its Good Meat portfolio.

[Click here for full article](#) □



## Ann Margaret Hughes Wins Kentucky Farm Bureau Excellence in Agriculture Award

Nov 19, 2020 on KYFB.com

Ann Margaret Hughes from Wayne County, KY has won top honors in Kentucky Farm Bureau's (KFB) Excellence in Agriculture Awards program for 2020.

Each year, the KFB Excellence in Agriculture competition awards first, second and third place distinctions to individuals or couples under the age of 35 who contribute to, and exhibit leadership growth from, consistent involvement in Farm Bureau and other agriculture and civic-oriented organizations. To qualify, contestants must not have the majority of their income subject to normal production risks associated with farming.

Hughes is the Feed Conversion Manager for Cobb-Vantress, a primary breeder in the broiler industry. She has been active in Farm Bureau for a number of years and was a founding member of her collegiate Young Farmer and Rancher program. She and her husband both work full-time, while still maintaining a beef cow-calf operation.

Hughes enjoys being active in her community and church. She has served both within and outside of the ag industry in a number of volunteer leadership roles at the local, state and national levels.

Hughes was presented with a John Deere Gator, courtesy of Farm Credit Mid-America. She will represent Kentucky in the national contest at the American Farm Bureau Federation virtual convention in January.

Second place in the contest went to Daniel Carpenter of Hardin County who was awarded \$400 courtesy of KFB. Donovan and Terra Pigg of Clark County placed third and received \$300 from KFB. □



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## A visit with business-savvy poultry grower Darryl Brown

TPA board member Darryl Brown is a grower for Aviagen with farms in Lawrence County, TN. He has been in the poultry business for 17 years, and he and his wife Amanda have two children. Their son Brady is a veterinary student at Mississippi State and a former TPA scholarship recipient. Their daughter Darra is finishing up her secondary education degree at MTSU. Amanda holds an EdS degree and teaches history at Lawrence Co. High School.

Darryl grew up in the Lawrenceburg area on a row crop farm that also had cattle and horses. He broke and rode a lot of horses while growing up, and has done so even more since then. He was the second of four boys in their family.

Intrigued by Darryl's business savvy and success, TPA Executive Director Dale Barnett visited with him at Strikers restaurant in Lawrenceburg last month. Below are some of the interesting takeaways from their conversation.



- ◆ Darryl readily credits his wife Amanda for taking care of their books and their taxes. He says that he “works and takes the risks, and she covers it!” What a team.
- ◆ He says that “calculated risk is the only way to make money”, and to be sure to “not do any stupid stuff.”
- ◆ Want to make more money? Darryl says “work harder. Take on more.” He owns and operates three farms with a total of 8 chicken houses (one 4-house and two 2-house farms) all contracted with Aviagen. He also has ongoing business dealings with his brothers. The family farm where his dad still lives goes back 5 generations.
- ◆ Darryl is quick to caution about overspending on “toys”. He still relies on his treasured 1983 ATV and a 1991 Nissan farm truck. He does drive a nicer truck to town, but it is very practical and he uses it for work, too. His family has been begging him to replace the 4-wheeler, but he refuses to do so as long as the one he has is running.

### A word about having cattle...or not

- ◆ Darryl presently does not own any cattle. He has raised commercial cattle in the past and may own cattle again someday, but he says he “makes more money working only three times a year for three days each time cutting & rolling hay to sell.” He says “if you think your time is worth anything, only be in the cattle business when they are selling high.”
- ◆ He advises to get a CPA to put a pencil to everything to see what is profitable.
- ◆ Darryl never gets attached to any of the cattle he owns. He says that is a mistake he has seen others make too often. And if he has cattle and they aren't making money, he sells them. Then he rolls & sells hay, working less doing so.

### Darryl summarizes his business advice below.

- ◆ Have a good accountant.
- ◆ If it doesn't make money, get rid of it. If it's not going to make money, don't buy it. If it's not a tool, it's a luxury.
- ◆ Do your due diligence.
- ◆ If debt ratio is way more than what you could cash out, you are upside down.
- ◆ Managed risk is the only way a poor man will ever get out of the above situation.
- ◆ Great working relationships with those you rely on for poultry supplies, gas, and litter clean out, etc. are imperative.

Darryl has been on the TPA Board of Directors since 2018. He is greatly appreciated and credited for bringing to TPA's attention the fact that utility companies may be holding deposits that are eligible to be refunded. Darryl discovered that two cash deposits of his own were not going to be refunded unless he directly requested the refunds. TPA has since learned that holding cash deposits for a certain number of years and *not refunding them unless specifically requested* is common practice for many electric, water and gas utility companies. Some utility companies accept letters of credit and some hold cash deposits until service is terminated, but if you think you may be eligible for a cash refund, please look into it. If the utility company's required holding period has not lapsed, put it on your calendar so this is not overlooked when your refund becomes eligible. If you were not aware of this, please think of Darryl and be thankful for his service on our board whenever you go and collect. If anyone ever has an issue in getting refunded, please don't hesitate to ask the TPA office for assistance. ▢

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## Grower Tips – Farm Insurance

Farm insurance and safety is something I think about a lot. Insurance has quickly become one of the most costly inputs for growers and is only climbing. Our friends in Mississippi tell me it is getting harder and harder for their growers to secure coverage. For those not able to get regular, standard insurance there are surplus lines carriers available. It is interesting to know who has to follow established prices and coverages, and who has to be licensed in-state. If you don't know the difference and aren't sure which you have, or what you should have, please look into it deeper or email me so I can send you some links. I stay concerned for growers that do not have equipment failure and loss of income coverages because some carriers simply don't offer this. Speaking of equipment failure, have you turned on your generators lately? Are you certain they will perform instantly and reliably? I remain perplexed that the failure of transfer switches still happens in this industry. Proper grounding, regular maintenance, regular system checks and totally reliable alerts are imperative. /dale ▢



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## Trump Administration Invests Nearly \$17 Million in High-Speed Broadband in Rural Tennessee

*ReConnect Funding to Provide High-Speed Internet e-Connectivity to More Than 4,100 Rural Households*

CROSSVILLE, Tenn., Oct. 8, 2020 – The Trump Administration today announced that the United States Department of Agriculture (USDA) is investing nearly \$17 million to provide broadband service in unserved and underserved rural areas in Tennessee. These investments are part of the \$550 million Congress allocated to the [second round of the ReConnect Program](#).

“Access to a high-speed internet connection is a cornerstone of prosperity, and unfortunately many of America’s rural communities lack access to this critical infrastructure,” Deputy Under Secretary for Rural Development Bette Brand said. “Under the leadership of President Trump and Agriculture Secretary Perdue, USDA is committed to leveraging all available resources and being a strong partner to rural communities in deploying high-speed broadband e-Connectivity to the people, businesses and community facilities that don’t have access yet. Connecting America’s rural communities to this essential infrastructure is one of USDA’s top priorities, because we know that when rural America thrives, all of America thrives.”

Volunteer Energy Cooperative will use a \$3.7 million ReConnect grant to deploy a fiber-to-the-premises network to connect 2,687 people, 79 farms and nine businesses to high-speed broadband internet in Meigs County, Tennessee.

Ben Lomand Holdings Inc. will use a \$1.9 million ReConnect grant to deploy a fiber-to-the-premises network to connect 152 people, 33 farms and one business to high-speed broadband internet in Cumberland County, Tennessee.

Highland Communications LLC will use a \$6.4 million ReConnect grant to deploy a fiber-to-the-premises network to connect 2,908 people, 73 farms, 25 businesses, eight educational facilities and a fire station to high-speed broadband internet in Campbell County, Tennessee.

DeKalb Telephone Cooperative Inc. will use a \$2.2 million ReConnect grant to deploy a fiber-to-the-premises network to connect 2,053 people, 65 farms and 17 businesses to high-speed internet in Smith, Trousdale and Wilson counties in Tennessee.

West Tennessee Telephone Company Inc. will use a \$2.7 million ReConnect Grant to deploy a fiber-to-the-premises network to connect 2,940 people, 40 farms, five businesses and a fire station to high-speed internet in Carroll County, Tennessee.

To learn more about ReConnect Program eligibility, technical assistance and recent announcements, visit [www.usda.gov/reconnect](http://www.usda.gov/reconnect). □

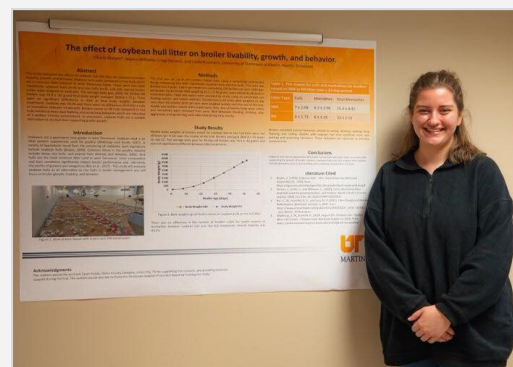
## Dietary phytase reduces broiler woody breast severity

December 7, 2020 in [PoultryWorld.net](#) by Reagan Cauble, Elizabeth Greene, Sara Orlowski, Carrie Walk, Mike Bedford, Jason Apple, Michael T. Kidd, and Sami Dridi, Poultry Science

Potential modulation of breast muscle fatty acid profiles reduces the severity of the myopathy which often leads to meat condemnation. In 2014, the first publications appeared which described ‘woody breast’, a condition of broiler breast muscle characterized by visually hard, outwardly bulging and pale areas on the ventral surface of the pectoralis major muscle. Woody breast is now one of the most important myopathies challenging the poultry industry. It is of global concern, with incidences reported to affect 30-50% of broilers growing for 8 weeks to a live body weight of over 4.2kg. The myopathy constitutes a major animal health, welfare and economic concern causing enormous financial losses to the industry due to on-farm culling and mortality, downgrading, and condemnation at processing, as well as rejection from human consumption.

[Click here for full article](#) □

Agriculture student **Charis Waters** stands by her first place research poster co-authored with Jessica Williams, Dr. Craig Darroch, and Dr. Linda Husmann titled, “The effect of soybean hull litter on broiler livability, growth, and behavior” presented at the Annual Meeting of the Tennessee Academy of Science. This was the first research project performed in the new UT Martin/Tyson Foods Broiler Facility, and was supported by a Tennessee Soybean grant. □



## USPOULTRY Foundation Allocates Student Recruiting Grants

Nov. 10, 2020 – The USPOULTRY Foundation awarded student recruiting grants totaling \$275,663 to six U.S. universities with Poultry Science departments and 20 other institutions with industry-related programs. The Foundation provides annual recruiting and retention funds to colleges and universities to attract students to their poultry programs. The grants were made possible in part by gifts to the USPOULTRY Foundation from companies, individuals and families, in addition to funds earned over the years from the International Poultry Expo, part of the International Production & Processing Expo.



Two institutions in Tennessee received recruiting and retention grants under the Foundation’s Industry Education Recruitment Funding Program. Middle Tennessee State University was awarded \$10,000 with the grant made possible in part by Pilgrim’s. Tennessee Tech University received \$2,540 from a grant made possible in part by the Hubbard Farms Charitable Foundation. □

## Dodging tornadoes while raising kids and chickens on Dayton Mountain

During the April 2011 tornado outbreak in Bledsoe Co., neighbors witnessed a tornado come across nearby Savage Gulf and hop over the breeder houses on top of Dayton Mountain owned by Josh & Jimi Dee Clark of J&J Farms. Just minutes earlier, Josh had informed Jimi Dee of the storm alerts he was receiving on his phone, and they could tell things were getting serious. She immediately strapped their 4 month old son into his car seat for added protection, carried him with her next to the sturdiest structural beams in the cooler room of one of their breeder houses, and prayed. Thankfully, everything turned out just fine for them with only minor wind damage on the farm. Since then, the Clarks have installed an underground tornado shelter in their yard close to their chicken houses.



No stranger to the poultry business or that area of Bledsoe Co., Josh grew up on a nearby family farm that had breeder houses from the time he was 9 years old. Jimi Dee was raised in Jamestown, TN and was introduced to poultry when she went to UT Martin to study Ag Business and did an internship with Tyson Foods in Obion Co. She went on to become a breeder tech for four years after graduating, while Steve Johnson was still a manager with the OBC complex. She worked outside of the poultry industry for a while before returning to work as a breeder tech in Henagar, AL for the Koch Chattanooga complex. She ended up meeting Josh there and the rest is history. Beginning with raw land, Josh and Jimi Dee built their first set of broiler breeder houses together in 2008 and added another set in 2010 on the farm where they still live today.

The Clarks also have cattle and Josh deals some in hay. This farm family pulls together harmoniously to make it all happen. Josh focuses on the physical and mechanical aspects of the farming and poultry operation, and Jimi Dee concentrates on the bird performance, welfare and health. She is very thankful for her prior service tech training and expertise which she attributes to much of their success as growers. Jimi Dee homeschools their two boys, Jackson (9) and Samuel (7), and the boys help walk the houses and pack eggs when needed. The boys are bright, full of energy and love to hunt with their dad with either a bow or rifle. They have recently learned to do European mounts themselves and are proud to show off their skillful work of deer they personally harvested. Jackson and Samuel also have two goats named “Ruffnut” and “Tuffnut”, and have bottle-raised a few calves along the way as part of their daily chores.

Even though the farm is in Bledsoe County, the farm gets its water and power from the city of Dayton. Propane is delivered out of Dayton, and Josh has a remarkable working relationship with his supplier. During the winter of 2013-14, when there was a propane supply issue leaving many farms and several complexes scrambling to get supplies, Josh’s service and supply was never interrupted. Josh is quick to stress the importance of working relationships as a grower with everyone in which he does business, or might ever want to do business with in the future.

Dayton Mountain is home to at least 6 other growers on the Bledsoe Co. side of the mountain, including the Ritchey, Wooden, Sims, D&J, Oldham, and Swafford farms. For a first time visitor these farms are not easy to find or get to, especially if coming in from the Southwest and not going through Pikeville (as was best advised by Jimi-Dee), but the feed trucks and service techs sure know how to get there! □



## No more 'boneless wings' in Lincoln, Nebraska?

September 3, 2020 in [WattAgNet.com](https://wattag.net) by Roy Graber

Lincoln resident says city should be leaders in eliminating misleading marketing term

We've probably all thought this at one point in time or another: The products marketed as "[boneless chicken wings](#)" really aren't wings at all.

I've heard a few people say they don't like that term that actually describes a breast meat product, but nobody I've met ever had the level of passion about it as Ander Christensen, a resident of Lincoln, Nebraska.

Christensen, recently addressed the [Lincoln City Council](#), of which his father Roy is a member. The younger Christensen asked the council to consider an ordinance or similar action that would eliminate the use of that phrase at restaurants and other places where the term might be thrown around.

Yes, he seriously did this. A [YouTube video](#) of this testimony signals that at least one audience member thought it was a joke and started to laugh, at which point Christensen paused and asked for the laughter to stop and that he be treated with respect.

Christensen said, "I propose that we as a city remove the name boneless wings from our menus and from our hearts." He made these three points to validate his concerns:

"Nothing about boneless chicken wings actually comes from the wings of a chicken. We would be disgusted if a butcher was mislabeling their cuts of meat, but then we go around pretending the breast of a chicken is its wing."

"Boneless chicken wings are just chicken tenders, which are already boneless. I don't go to order boneless tacos. I don't go and order boneless club sandwiches. I don't ask for boneless auto repair. It's just what's expected."

"We need to raise our children better. Our children are raised being afraid of having bones attached to their meat. That's where meat comes from. It grows on bones. We need to teach them that the wing of chicken is from a chicken, and it's delicious."

Christensen proposed that the council rename boneless wings in the city of Lincoln. Among his suggestions were "Buffalo-style chicken tenders" and "saucy nuggets."

Should the city do that, Christensen believes Lincoln can be a nationwide leader in setting the record straight about said poultry products.

"We can take these steps and show the country where we stand, and that understand that we've been living a lie for far too long, and we know it because we feel it in our bones," he said.

[Click here for full article](#) □

## Gen Z prioritizes animal welfare, sustainability over new food technologies

September 16, 2020 in [WattAgNet.com](https://wattag.net) by Elizabeth Doughman

Nearly three-quarters of Generation Z – born between 1995 and 2015 – say they are not ready to try lab-grown meat, according to a new study published in *Frontiers in Nutrition*. Many of these consumers cited environmental impact as a concern.

[Click here for full article](#) □

## In a Year of Unprecedented Need, Tyson Foods Donates Record Amount of Protein

September 28, 2020 in [GlobalNewsWire.com](https://globalnews.wire.com)

Tyson Foods, Inc. has donated more food over the past year than ever in its 85-year history, the company reported. More than 30 million pounds, or the equivalent of 120 million meals, were donated by the company during the last 12 months to fight hunger. The food donations were part of more than \$75 million the company invested to fulfill its commitment to address hunger insecurity, support its team members and improve the quality of life in the communities where it operates.

[Click here for full article](#) □



*Grilled Chicken*

## COMMODITY REPORT

November 20, 2020 in [Chick-News.com](http://Chick-News.com)

- The financial and economic uncertainties of a Biden-Harris Administration and the escalating COVID-19 pandemic continue but these factors appear to have had little influence on the commodity market this past week as society struggles with ascending COVID incidence delaying a return to a "new normal". The direction of agricultural and trade policy to be implemented in 2021 will emerge following the nomination of Cabinet members and their subordinates.
- S producers are now receiving and conversely, livestock producers are paying over \$4 per bushel for corn and \$11 per bushel for soybeans.
- Commodity prices this past week were higher, adding to increases recorded last week. Factors influencing prices included export orders, lower projections for 2020 crop yields and ending stocks as documented in the November 10th WASDE Report. Corn showed a 3.4 percent rise for the week with daily fluctuation on prospects of additional orders from China and shipments to Mexico and S. Korea. Soybeans were up 2.9 percent in price this week mainly due to orders booked by China and other nations and projected lower ending stocks attributed to a downward revision of yield and associated factors. Soybean meal rose 1.5 percent disproportionately lower than the rise in the price of soybeans.
- Since July 10th year-to-date exports and 2020/2021 market-year orders for corn have attained 9.39 million metric tons (370.0 million bushels). Orders for soybeans amounted to 19.5 million tons (716.0 million bushels) accelerating during September and October. USDA did not report on sales of corn and soybeans this past week.
- Prospects for commodity exports to China during the 2020/2021 market year that began on September 1st for corn and soybeans have apparently improved. China adjusted their domestic short-term demand for soybeans as a result of an apparent increase in the hog population after severe losses in 2019 and early 2020 from African swine fever. White-feathered chicken production has now recovered after COVID disruptions and on QSR demand. China is also taking advantage of shipping rates that are fluctuating sharply in order to build inventory. The Baltic Dry Index tracking the three categories of vessels that was 1,860 in mid-October 2019, fell to 504 in late May 2020 and is now at 1,134 having risen 0.9 percent from the value last week to the lowest level since mid-June.

The following quotations for delivery in the months as indicated were posted by the CME shortly before the close of trading on November 20th compared with values posted on November 13th (in parentheses) reflecting specified months for delivery.

### COMMODITY

Corn (cents per bushel)	Dec. 423 (409)	March '21 428 (418)
Soybeans (cents per bushel)	Jan. '21 1,181 (1,148)	March '21 1,182 (1,145)
Soybean meal (\$ per ton)	Dec. 395 (389)	March '21 390 (385)

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

### COMMODITY CHANGE FROM PAST WEEK

Corn: Dec. quotation up 14 cents per bushel (+3.4 percent)

Soybeans: Jan. quotation up 33 cents per bushel (+2.9 percent)

Soybean Meal: Dec. quotation up \$6 per ton (+1.5 percent)

- For each 10 cent per bushel change in corn the cost of egg production would change by 0.45 cent per dozen and the cost of broiler production would change by 0.25 cent per pound live weight
- For each \$10 per ton change in the price of soybean meal the cost of egg production would change by 0.44 cent per dozen and the cost of broiler production would change by 0.25 cent per pound live weight

This week the escalation in the prices of corn and soybeans would increase production cost for eggs by 0.9 cents per dozen and 0.5 cents per pound live for broilers.

Uncertainties still include:

- There are questions as to whether China will satisfy quantitative obligations in terms of the Phase One Trade Agreement during calendar 2020. The Agreement signed in mid-January incorporated U.S. tariff rescissions, promised purchases of agricultural commodities (valued at \$36.5 billion in 2020 and \$43.5 billion in 2021), concessions on some structural issues by China and strengthened enforcement provisions. Since the Phase One agreement was signed, China has imported agricultural commodities including soybeans, corn, sorghum, pork and beef to the value of \$23 Billion according to the Office of the U.S. Trade Representative, amounting to 63 percent of commitment by China although this figure is disputed by independent economists. Renegotiation of the Phase-One Agreement by the incoming Administration is an unknown quantity.
- Domestic U.S. soybean and soybean meal demand is now less constrained by COVID-induced cutbacks in the intensive livestock and poultry sectors.

*continued on next page*



## COMMODITY REPORT *(continued from previous page)*

According to the November 10th WASDE, corn to be harvested in calendar 2020 is expected to attain 14,507 million bushels with ending stocks projected at 1,702 million bushels. Final values will be modified by actual yield as influenced by weather conditions and export volume. Compared with the November 6th closing price the CME quotation for corn on November 20th was up 14 cents per bushel for December delivery to 423 cents, adding to the 22 cents per bushel rise recorded during the preceding two weeks.

The social restrictions imposed in the U.S. as a result of COVID-19 will reduce ethanol demand by 1.5 billion gallons or 10 percent of projected 2020 requirement accepting a nominal ten percent addition to gasoline. More than thirty percent of U.S. ethanol fermentation capacity is off-line at present and the outlook for increased demand is questionable. Ethanol was priced lower at \$1.39 per gallon on November 20th down 4 cents per gallon (2.8 percent) representing a similar increase to the 2.1 percent rise last week and compared with a five-year low of \$0.92 per gallon on March 26th. Concurrently gasoline at \$1.17 per gallon (quoted, New York Harbor) is 22 cents per gallon lower than ethanol and has a 63 percent higher BTU rating.

With more plants producing ethanol in the 4th quarter, DDGS is now available but at a higher price than in the third quarter. Eastern Corn-belt product was priced at \$192 per ton on November 17th, \$9 higher than the previous week and \$44 per ton more expensive than November 19th 2019.

Soybeans were to be the beneficiary of the Phase-One agreement with China and were up 33 cents per bushel to 1,181 cents for January 2021 delivery. The USDA anticipates a 2020 crop of 4,170 million bushels, but this value may be depressed by drought in some states. Ending stocks according to the November 10th WASDE projection will attain 190 million bushels, down from the October projection of 290 million bushels.

For consecutive 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 anticipates that soybean imports by China will amount to 95 million metric tons during the 2020-2021 market year.

The following extracts from the September 30th 2020 edition of the Quarterly USDA *Grain Stocks Report* indicate the levels of storage on farms and in fields and off-farm for corn and soybeans.

- "Old crop corn stocks in all positions on September 1, 2020 totaled 2.00 billion bushels, down 10 percent from September 1, 2019. Of the total stocks, 751 million bushels are stored on farms, down 8 percent from a year earlier. Off-farm stocks, at 1.24 billion bushels, are down 12 percent from a year ago. The June to August 2020 indicated disappearance is 3.02 billion bushels, compared with 2.98 billion bushels during the same period last year. Based on an analysis of end-of-marketing year stock estimates, disappearance data for exports, and farm program administrative data, the 2019 corn for grain production is revised up 2.67 million bushels from the previous estimate. Corn silage production is revised up 715 thousand tons. Planted area is revised to 89.7 million acres, and area harvested for grain is revised to 81.3 million acres. Area harvested for silage is revised to 6.62 million acres. The 2019 grain yield, at 167.5 bushels per acre, is up 0.1 bushel from the previous estimate. The 2019 silage yield, at 20.2 tons per acre, remains unchanged from the previous estimate".
- "Old crop soybeans stored in all positions on September 1, 2020 totaled 523 million bushels, down 42 percent from September 1, 2019. Soybean stocks stored on farms totaled 141 million bushels, down 47 percent from a year ago. Off-farm stocks, at 382 million bushels, are down 41 percent from last September. Indicated disappearance for June - August 2020 totaled 858 million bushels, down 2 percent from the same period a year earlier. Based on an analysis of end-of-marketing year stock estimates, disappearance data for exports and crushings, and farm program administrative data, the 2019 soybean production is revised down 333 thousand bushels from the previous estimate. Planted area is unchanged at 76.1 million acres, but harvested area is revised to 74.9 million acres. The 2019 yield, at 47.4 bushels per acre, is unchanged from the previous estimate".

On November 12th the USDA-ERS published data on the export volume (thousand metric tons) and value (\$ million) of agricultural commodities covering the periods October through September 2019 and 2020:

- Corn. 2019: 49,124 million m. tons valued at \$8,996 million. For 2020: 46,858 million m. tons valued at \$8,214 million.
- Soybeans. 2019: 48,241 million m. tons valued at \$16,997 million. For 2020: 46,858 million m. tons valued at \$18,021 million. □



## Understanding Lights and Dimmers

Information presented by Tom Ellsworth, Ag Lighting Innovations, at the Nov. 5, 2020 Clay Co. Extension meeting in Celina, TN for poultry growers

### Lighting terminology

Lumens refer to the brightness of the lamp. The more lumens, the brighter the lamp.

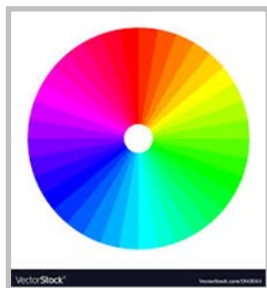
Watts refers to the amount of power/electricity used to power the lamp.

#### HOW MANY LUMENS DO YOU NEED?

If you used to buy this in incandescent	Look for this much light in lumens	LED (most efficient)	CFL (more efficient)	Halogen (more efficient incandescent)
100 W	1600	up to 22 W	up to 26 W	up to 72 W
75 W	1100	up to 20 W	up to 23 W	up to 53 W
60 W	800	up to 12 W	up to 15 W	up to 43 W
40 W	450	up to 9 W	up to 11 W	up to 29 W

Lumens vs Watts: Output and wattages based on most common products available for each medium screw-based light bulb. Actual light output may vary by product.

Source: <https://www.lumens.com/how-to-and-advice/light-bulb-facts.html>



Color temperature (kelvin) refers to the light color. The lower the kelvin number, the more yellow the light appears to be. The higher the kelvin number, the more white the light appears to be. This is achieved by adding and deleting colors from the light spectrum in the lamp. For instance, the more yellow the lamp is, the more red has been added to the light. The more white the lamp is, then more blue has been added to the light.

#### Difference between LED and Incandescent lights

Incandescent lights use a tungsten filament (wire) heated up to about 4,000 degrees Fahrenheit or until the wire glows enough to give off light. This process will waste about 90% of the heat/energy.

LEDs (Light Emitting Diode) uses electron movement to create light. Each diode contains a positive electron charge (anode) and a negative electron charge (cathode). The negative and positive electrons repel each other. Each electron moves within the “chip” extremely fast, creating a current giving off light, a phenomenon called electroluminescence. They use less power (up to 80% less), there is less heat wasted, and the LED lamps will last about 25 times longer than the incandescent light.

LEDs do not work on alternating current (AC), but use direct current (DC). This is why each LED light needs a driver inside each lamp, in order to convert the AC current from the electrical box to DC current. LED string lights will typically use a driver outside of the lamp, to convert the current to DC, for the whole string.

**All your lights need to be from the same manufacturer and be the same type of light.** For instance, say you buy a case of LED lights from a big box store. In that case, you might have lights that have different parts from different manufacturers, even though the lamps are in the same box! There unfortunately might be a manufacturer who shops for the cheapest parts so they can make more profit. An unscrupulous dealer might display a light with better parts in it, get the order at an agreed upon price, then increase his profit with cheaper parts. This can create different milliamps in the line and causes light problems including flickering. Know who you are dealing with to make sure your lighting manufacturer is trustworthy. Compare your warranties. Some manufacturers limit the hours of use, the environment you place the lamp into, make you have your original receipt, etc. Mixing and matching lights can result in poor performance and reduce longevity, and is not recommended.

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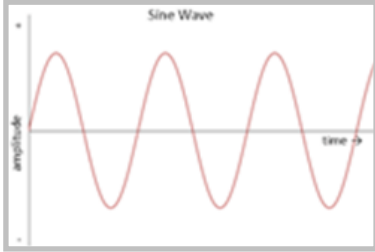


## Understanding Lights and Dimmers *(continued from previous page)*

### How Dimmers Work

There are two kinds of dimmers - a “leading edge” dimmer and a “trailing edge” dimmer. The leading edge dimmer was created to dim incandescent lights and will work with halogen lights. **The trailing edge dimmer was created to dim LED lights.** Even though you dim an incandescent lamp, the light still uses the same wattage it uses running on full bright. A 60w incandescent lamp will use 60w even when dimmed to ¼ foot candle.

LED lamps dimmed to 25%, will only use 25% of the wattage. The more efficient the LED lamp, the less wattage it uses in the dim mode. For example. A row of 45 LED lamps dimmed to 0.25 foot candles, will only use 7w if you are using an efficient LED lamp.



Lights use a “sine wave” to operate. Think of the number 8 on its side. When the wave is smaller, the light dims. Lights operate on a 60 hertz cycle. This means the light turns off 60 times per second. This is so fast that the human eye only sees the light on. Think of a motion picture, you can slow down the film where you can see each individual frame. The same is true with lighting. If you can use slow motion, you can actually see the light go off and on. That is not a defective light. That is just how electricity works. The slower the hertz cycle the fewer times per second the light “turns off and on”. *When filming videos inside poultry houses, note that anything slowed to less than 60 cycles will appear as flickering on film. Please don't misrepresent someone's lights when sharing video footage!*

### How to dim your lights and how many lights can you have on your dimmer

First, make sure you have purchased a dimmable light. A dimmable incandescent light may not work on a non-dimmable circuit, but a dimmable LED will work fine on a non-dimmable circuit. To see how many lights your dimmer will handle, find the “minimum and maximum” load (wattage) your dimmer can handle.

Example: Incandescent dimmers will usually handle a low range of 250w and a high range of 1,000w. The LED dimmers have a low range from 25w up to 150w and a high range of 250w up to 1,500w.

So, take the maximum amount of wattage your dimmer can handle, say 2400 watts at 1200 watts per channel. Take your individual light wattage, say a 15 watt LED and divide the 1200 by 15 This equals 80, so you can have 80 lights on each channel for a total of 160 lights in the house. I would caution you not to push the dimmer to the max, because some LED bulbs say 9W and actually pull more than that. So, if your dimmer is really hot or your lights seem to flicker or expire quickly, then check your load on the dimmer. *continued on next page*



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## Understanding Lights and Dimmers *(continued from previous page)*

Both the leading edge and trailing edge dimmers trim the sine wave to accomplish dimming.

If you use a trailing edge dimmer, it should dim your LED light. Be sure to check the number of lights you use and figure out the total wattage to see if you meet the dimmer requirements. **You might need more than 1 dimmer.**

Trailing edge dimmers can operate incandescent lights if the minimum and maximum load requirements are met. The same is true with a leading edge dimmer. They just may not dim down to the level you need without turning the light off in the process.

If you are outside of the load requirements of the dimmer it can exhibit problems like flickering, noise, or just will not work. **Most LED's flicker because you are under loading your dimmer.**

Trailing edge dimmers are more expensive than leading edge dimmers. This is because they are infinitely more complex and absolutely brilliant when used properly. They use complicated and very sophisticated electronic circuitry that offers the benefits of silent operation and smoother, more accurate controlling.

**Example:** Say you have a qty. of 40 of the 100w incandescent lights and your dimmer has a minimum wattage of 1000w and a maximum load of 5000w. You are within the load requirements of the dimmer.

Now, switch to an LED light. 40 LED 10w lights are equivalent to 40 of the 100w incandescent lights. **Your minimum load is now 400w and is below what the dimmer needs. Your lights will flicker, fail, or blow your electronics.** Some people will put a few incandescent lights at the end of their electric line to get their LED lamps up to the minimum required wattage of the dimmer in order to work. Not really a good idea, but sometimes it works.

### Common dimming issues

Ghosting is when your light is barely on after you have cut the power off, which can cause early lamp failure and flickering.

Here are the things that can cause these issues:

1. Not using the right dimmer.
2. Old light sockets: Corrosion of the sockets can result in added resistance in the circuit causing premature lamp failure, poor dimming levels, excessive loss of lumens.
3. Loss of lumens: It is common for LED lights to lose anywhere from 5% to 15% of their brightness every year. If you have had LED's for 2 years, you probably have noticed that they are not as bright as they use to be.
4. Not using a dedicated neutral wire or dedicated ground wire: Your LED lamps should not have any other electronics on the neutral line from the panel box, just the lights. Interference in the line can cause issues with flickering and ghosting. The power jumps from the neutral or ground into the hot wire, causing issues sometimes, when the line is being shared with a fan, motor or anything other than a light. □

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## Tips for Improving Cold Weather Minimum Ventilation

Jess Campbell, Jeremiah Davis, and Kelly Griggs - National Poultry Technology Center, Auburn University - December 2020



Company recommended minimum ventilation run times are simply a starting point. These stated times only work if the house, equipment, and litter are in good condition when chicks are placed. Each of the questions below are important to making decisions as to add or subtract time from this starting point.

What shape was the litter in before birds were placed? Is the litter wet or saturated? All cake should be removed and there should be at least 4 inches (more in some cases) of dry bedding across the entire length and width of the house. When using litter amendments please DO NOT decrease minimum ventilation run time cycles. Litter amendments are designed to complement good minimum ventilation and not be used to replace minimum ventilation run times.

How are my fans? Your minimum ventilation fans should be the best fans on the farm! Minimum ventilation is all about moisture removal from the house with air exchange. They must be clean, shutters in good repair, belts like-new and tight, and tensioners working. They must be thoroughly inspected, repaired and in some cases replaced. OR you may need to add as much as 50% to your run times if these fans are not in like-new shape. If fans are only capable of bringing in 70% of the needed air exchange, then you have a choice to make; fix the fans or add runtime to compensate for the poor fan performance.

Are there substantial air leaks in the house? Is your house tight? If you only pull a 0.06" w.c. static pressure with a true one cubic feet per minute (cfm) of fan power for each foot of floor space (1 cfm/ft<sup>2</sup>) then the answer is no. It is in the growers' best interest to do whatever it takes to tighten the houses up. The higher the pressure achieved the better control of the incoming air and environmental control you will have. Efficient minimum ventilation starts with a tight house. Most experts recommend a minimum level of 0.10-0.13" w.c. or higher. If you pull below a 0.10" w.c. during this test, more than 50% of the air coming in during minimum ventilation cycles is entering through the cracks and holes and not through the perimeter vents.

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## Tips for Improving Cold Weather Minimum Ventilation *(continued from previous page)*

How much air is bypassing the brooding chamber? If you wonder what this means, we are referring to any minimum ventilation air that enters the house but bypasses the brooding chamber. Minimum ventilation air that enters the off ends of the house and exits the exhaust fan and does not flow through the brood chamber does not count for minimum ventilation. Minimum ventilation is calculated based on the number of birds in the house (or chamber) and if it does not contact the bird chamber it does not count. For example, if all of the vent doors are open in the back of the house, and run time is 60 seconds ON and 240 OFF then time would need to be increased to compensate for this air bypass. In some cases, it may need to be doubled to get the correct amount of moisture removal from the brooding chamber.



*Figure 1: Starting birds off with this caked litter left in the corners of this house is a bad idea. Every effort should be made to get litter in good condition during cold weather prior to chick placement. Litter conditions often set the stage for bird performance and ventilation success. This litter will require longer run times to maintain ammonia below 25 ppm. It simply is not ready for chicks.*



*Figure 2: The picture of the relative humidity sensor above indicates the relative humidity inside this house is 78%, this is over the 50-70% ideal range. Corrective action should be taken to lower the in-house humidity by verifying the steps in this article are within parameters and then increasing fan run times after housing issues are corrected. The ideal time for monitoring relative humidity is in the morning hours before outside ambient temperature rises.*

Where is the incoming air landing? Where is ventilation air landing? If it is landing on the floor along the sidewalls or on outside feeder and drinker lines, this is not right! The minimum ventilation air target is the ceiling peak (or as close as you can get to it) and NOT the floor or birds. For many growers, the fix for this problem is to close every other vent door in the house and force the open vent doors to open wider. There are a couple of different styles of doors installed today but a good starting point is about a 1.5 to 2-inch opening. Then adjust the doors in or out to maximize air throw and mixing.

Are you tracking moisture? The general recommendation for in-house moisture range is between 50-70% RH. As the house approaches 65% RH, steps should be taken to correct this increase by verifying that your house is setup correctly and then increasing cycle time by about 15 seconds. If RH levels reach 85% and higher it will be very difficult to correct the in-house conditions and nearly impossible to correct the litter conditions during the flock. In general, it is cheaper to start off early and closely monitor in-house moisture and manage it before it gets out of hand compared to correcting a problem after the fact. A simple inexpensive relative humidity sensor can be purchased at the local hardware store to help you keep up with in-house humidity levels. Many growers leave them inside the house so they can see them first thing in the morning when the in-house conditions are ideal for monitoring humidity.

Are stir fans being used? Continuously running or cycle timing stir fans can be the most effective and simple way to improve moisture removal during minimum ventilation, floor temperature uniformity, temperature stratification between vent cycles, and mixing outside air leaks with in-house air and to keep it from further damaging litter and chilling chicks. Got damaged or dead stir fans? Now is the time to replace them. If you do not have stir fans, now is the time to get them installed and working for you.

Bottom Line. Suggested company timer settings can work well if the litter is in good condition from the beginning, the house has minimal air leaks, the min-vent fans are in good condition, most all of the ventilation air enters the brood chamber, and vent doors are open to throw air toward the peak of the ceiling and not on drinker lines. Any of the items listed above can negatively affect minimum ventilation success, energy consumption, and bird performance. Good luck this winter!

### National Poultry Technology Center (NPTC) Team Members:

Jeremiah Davis  
Director & Associate Professor  
j.davis@auburn.edu  
334-734-2644

Jess Campbell  
Assistant Extension Professor  
campbj1@auburn.edu  
334-332-6830

Kelly Griggs  
Research Engineer II  
griggs@auburn.edu  
251-525-0075

□

# TPA GREATLY APPRECIATES OUR ALLIED MEMBERS



**Ag Lighting Innovations**  
Tom Ellsworth  
(615) 378-0108

**AGRO Merchants Group**  
Patrick DesJardins  
(615) 310-3785

**Alltech**  
Sam Bates  
(229) 225-1212

**Animal Health International**  
Jeff Sims  
(256) 504-2588

**Arm & Hammer Animal Nutrition**  
Jason Quick  
(540) 271-4038

**BankPlus**  
Kenny Williamson  
(601) 850-7306

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Mike Johnson  
(678) 644-8463

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(256) 503-5726

**ChemStation Mid-South**  
Roy Brown  
(901) 345-5333

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**CT Consulting**  
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**DS Smith**  
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<b>River Valley Ingredients</b> Richard Stewart (770) 886-2250	<b>Westan Insurance Group</b> Portis Tanner (731) 885-5453
<b>Silver Bullet Water Treatment</b> Patrick Curtis (270) 963-8218	<b>Zoetis</b> Jason Hicks (706) 768-4088
<b>Silvercote Insulation</b> Jordan Helms (864) 315-7225	<b>Tennessee Poultry Association</b>





**TN Poultry Association**  
P.O. Box 1525  
Shelbyville, TN 37162  
[www.tnpoultry.org](http://www.tnpoultry.org)

**Executive Director**  
**Dale Barnett**  
(931) 225-1123  
(931) 434-8045 mobile  
[dbarnett@tnpoultry.org](mailto:dbarnett@tnpoultry.org)

**Member Services**  
**Tracy Rafferty**  
(270) 363-2078  
[tracy@tnpoultry.org](mailto:tracy@tnpoultry.org)

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These four outstanding and upright individuals went to rob the chicken house of eggs only to find they were at Todd Littleton's pullet farm!!! 😂

