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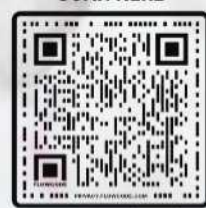
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# WATTPoultry USA

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# » NEXT ON THE PLATE

## Editor's Comment BY ELIZABETH DOUGHMAN



# Artificial intelligence could boost chicken marketing ROI

**A**rtificial intelligence (AI) still has a ways to go, but offers several benefits to boost productivity and return on investment (ROI) for chicken marketers, Hana Bieliauskas, senior vice president and partner, Inspire PR Group, explained at the 2024 Chicken Marketing Summit.

For marketers, AI can help analyze large amounts of data and identify patterns, predict trends and future behavior, provide personalized recommendations for customers, measure consumer sentiment and feedback, recognize images and generate ideas. This can also help streamline inventory, improving efficiency, sustainability and cost savings.

Retail services like Instacart use AI to track trends in consumer purchases and provide product recommendations for future purchases. For example, purchase chicken wings in the past? AI knows that you're likely to buy them again and make it easier to 'add to cart.'

AI isn't foolproof — it still requires the human touch to decide if AI's recommendations make sense, but it can make it easier to decide, Bieliauskas said.

## Artificial intelligence in action

One AI tool already in use in the broiler industry for consumers is the Sandy chicken chatbot from Wayne-Sanderson Farms, which is designed to answer questions from consumers. KFC is also using AI to create a personal messaging system to better understand the preference of mobile customers, which the company said resulted in a revenue growth of 15%.

Wendy's launched a pilot program for AI ordering through the drive-thru last year, which it said helps staff members focus on making food. However, conversely, McDonald's struggled with AI-powered ordering — the system misunderstood orders, with at least one viral video showing hundreds of chicken nugget orders.

There are still several challenges to successful AI adoption for chicken marketers, including cost, legal and ethical considerations and that a human component is still essential. Prompts also play a crucial role in the effectiveness of AI — the output is only as good as the input, she concluded. ■

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Jackie Roembke

## Chicken must bridge the trust gap with Gen Z consumers

As poultry marketers grapple with Gen Z's 'say-eat' contradictions, they would be wise to focus on authenticity and transparency when engaging with the demographic.

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## » NEXT ON THE PLATE

Poultry Market Prospects BY MARK JORDAN



# Slumping livability restrains US broiler industry growth



For most of the diseases that broiler flocks commonly encounter, the lethality rate is much lower than with HPAI, but severe and widespread flare-ups, as anecdotal reports suggest were happening earlier this year, can still weigh heavily on livability and overall flock performance. *David Tadevosian | Shutterstock.com*

**H**ighly pathogenic avian influenza (HPAI) remains an absolute menace for the U.S. turkey and egg industries, but cases in the broiler sector have been very few and far between.

Disease problems, however, are legion beyond HPAI, with Newcastle disease, coccidiosis, colibacillosis, infectious bronchitis and necrotic enteritis all common threats that broiler flocks face, just to name a few. Integrators make extensive use of in-house, and occasionally external, veterinary services to try and prevent, or at least mitigate, the negative effects brought on by disease outbreaks.

For most of the diseases that broiler flocks commonly encounter, the lethality rate is much lower than with HPAI, but severe and widespread flare-ups, as anecdotal reports suggest were happening earlier this year, can still weigh heavily on livability and overall flock performance.

## Measuring livability

The U.S. Department of Agriculture (USDA) provides official monthly estimates for the number of broiler chicks hatched per month as well as the number of broilers slaughtered under federal inspection. A straightforward method of calculating livability is simply taking those slaughter estimates as a percent of chicks hatched, with a small time lag adjustment to hatchings to account for the average growout time of a typical broiler flock. This captures all mortality from the hatchery to the processing plant, including birds culled for various reasons on top of mortality from natural causes.

Significant progress was made at keeping birds alive from the industry's earliest days through the 1980s, but over the past three-plus decades, livability rates have trended sideways overall. There continue to be ebb-and-flow cycles





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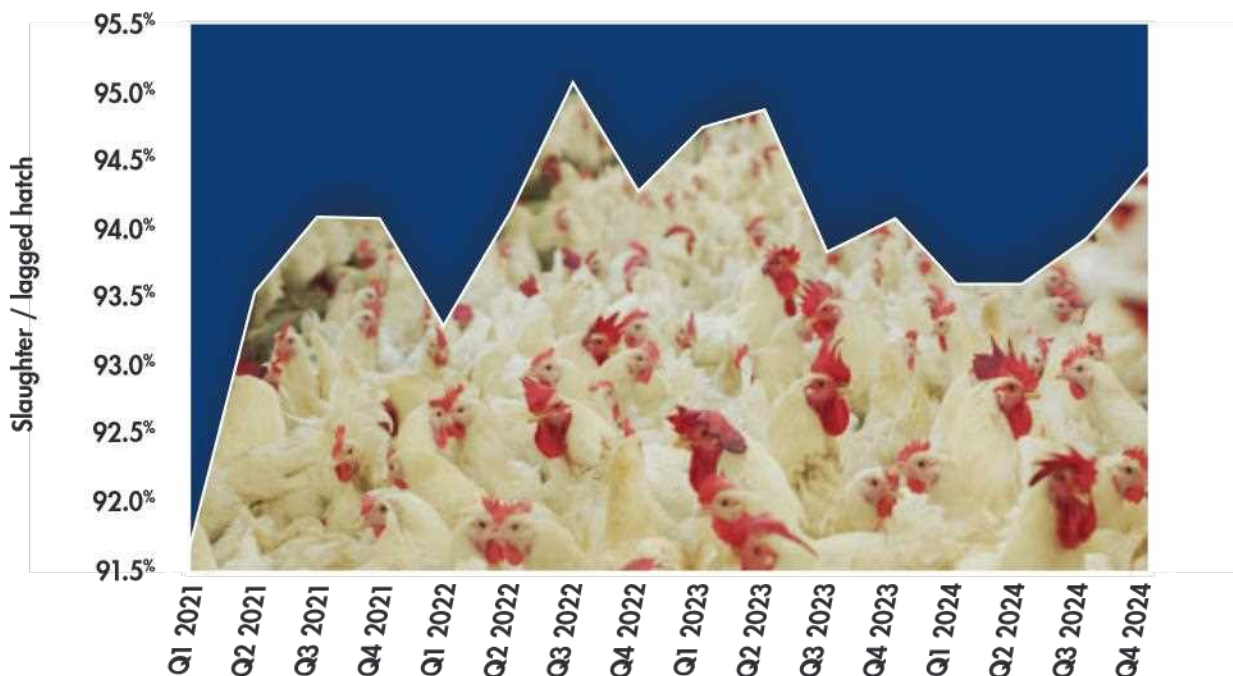
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## » NEXT ON THE PLATE Poultry Market Prospects BY MARK JORDAN

### Implied average broiler livability in the U.S.



Broiler flock mortality in the U.S. was more than 1% higher than prior-year levels during the first half of 2024.

around a relatively stable baseline, presumably a function of breeder flock rotations and their downstream effects on chick quality as well as aforementioned disease issues. The industry has not been able to drive total mortality below 5% over an extended period, implying peak livability of 95%.

#### Impact of decline

Part of the issue is that broiler flock livability was especially strong between mid-2022 and mid-2023.

It was estimated at 95.1% during Q3 of 2022, slipped to 94.3% during Q4 of that same year, but recovered to 94.7% during Q1 last year and advanced further to 94.8% during Q2. Livability slipped again during the second half of 2023 and declined further to 93.6% during Q1 of this year as rumors surfaced that the disease threat had escalated for several integrators.

With the June slaughter estimate still not official

as of this writing, livability during Q2 was on track to be relatively stable with Q1, a possible indication the issue is stabilizing. Even with the situation not deteriorating further, year-over-year comparisons in slaughter were negatively impacted by nearly 1.2% during the first half of 2024 due to slumping livability.

Incidentally, the total number of chicks hatched during the first half of this year was on track to post a similar increase from 2023. Said differently, while leading indicators have been portending modest industry expansion, slumping livability has resulted in stagnant growth overall. It is clearly a frustrating issue for all parties but one that is likely to be resolved in time. ■

*Mark Jordan is executive director at LEAP Market Analytics.*



## » NEXT ON THE PLATE

U.S. Poultry & Egg Association

BY DENISE HEARD



# What the dairy industry can learn from poultry's HPAI response

Information sharing and collaboration will be crucial to stopping disease threat in both species.



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**A**vian influenza, or “bird flu,” is a contagious viral disease of domestic and wild birds. The disease is caused by influenza type A viruses and varies in severity depending on the strain and species affected.

Highly pathogenic avian influenza (HPAI) strains are fatal for domestic poultry and can wipe out entire flocks within days. It is a major threat to the poultry industry, animal health, trade and the economy worldwide. Since January 2022, highly pathogenic avian influenza H5N1 has

affected more than 97 million birds across 48 states.

### Dairy cases reported

In March 2024, HPAI H5N1, also called H5N1 bovine influenza, was confirmed on dairy premises. Since the initial confirmation, the virus has spread to more than 145 dairy herds across 12 states and the cases continue to rise.

Infected dairy cattle present with different clinical signs and symptoms than poultry, such as a decrease in milk production, drop in

feed consumption, and thickened or clotted milk. Dairy cattle typically recover from clinical signs after approximately two weeks and most can go back into milk production.

A United States Department of Agriculture (USDA) national epidemiological survey of affected dairy premises indicated that enhanced biosecurity measures are needed to decrease the spread of the virus. Factors that appear to be of greatest risk for introduction into dairy premises may be mitigated through enhanced biosecurity, increased animal testing

## » NEXT ON THE PLATE U.S. Poultry & Egg Association BY DENISE HEARD

and potentially through within-state animal movement restrictions, if they can be implemented without impacting animal welfare.

Whole genome sequencing (WGS) of viruses from positive dairy and poultry premises identified Eurasian lineage goose/Guangdong

clade 2.3.4.4b, genotype B3.13 on both premises. Because some HPAI-affected dairy cattle were undetected and nonclinical at the time of movement and had been shipped to a dairy near a later affected poultry flock, it suggested indirect transfer of the virus from the dairy to the poultry premises.

### Time to work together

The poultry industry has battled HPAI for many years now, which has led to a significant amount of research in areas such as enhanced biosecurity methods, viral transmission, pathogenesis, surveillance, environmental sampling, depopulation and repopulation, disposal, cleaning and disinfection and other areas.

There are valuable lessons that have been learned through battling with HPAI in poultry that may assist the dairy industry in controlling and eliminating the disease. Further, due to the nature of how the virus mutates and transmits, there have been human cases reported and other events in a multitude of mammals.

Information sharing and collaboration are needed to ensure the sustainability of dairy products, poultry and eggs. It is crucial that all animal agriculture sectors get involved and proactively work together to combat this national agricultural threat. ■

*Denise L. B. Heard DVM, MAM, ACPV, director of research programs at the U.S. Poultry & Egg Association; email: dheard@uspoultry.org*

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Food Safety & Processing Perspective BY TERRENCE O'KEEFE



# US broiler marketers say Gen Z will get what they want

Chicken Marketing Summit attendees say that U.S. broiler companies will be able to meet younger consumers' desire for sustainably produced chicken meat products.

TERRENCE O'KEEFE

The theme for the 2024 Chicken Marketing Summit was “Chicken 2035: Anticipating Trends, Adapting Strategies.” Each presenter was asked to report on current trends impacting consumer behavior today and what the impact might be 10 years from now. A lot of focus was placed on the age cohort Gen Z, which consists of people born from 1996 to 2012. Members of Gen Z will be 23-39 years old in 2035 and many of them will be making food choices for themselves and their children.

Summit attendees were exposed to 1.5 days of presentations and panel discussions exploring what members of Gen Z are looking for from the products they buy. The Summit also explored how poultry production might change in the coming decade in response to demands from consumers, regulators and activists as well as advancing technologies.

We wrapped up the Summit by live polling the audience to get their opinions in response to several questions regarding where the industry will stand in 2035. Our warm-up question asked for the audience to provide a word to complete this statement: “I think that the #1 reason chicken is the top choice of U.S. consumers is...” price (31%), versatility (29%), value (9%) and health (7%) were the most common answers.

Summit attendees selected “growing farms” as the aspect of broiler meat production that

will experience the most significant changes over the next 10 years. “Breeding” was the next most common answer followed closely by “1st & 2nd processing.” (Figure 1)

Attendees were asked which challenges will have the most impact on how broilers are raised and processed. “Labor availability” was the most common answer followed closely by “animal welfare.” (Figure 2)

Members of Gen Z on average are more concerned about animal welfare and climate change than members of older age cohorts. Summit attendees were asked if they think that Gen Z will really care more about how broilers are raised and processed than they will about taste, price and convenience in 2035. The survey response was a resounding 83% “no.”

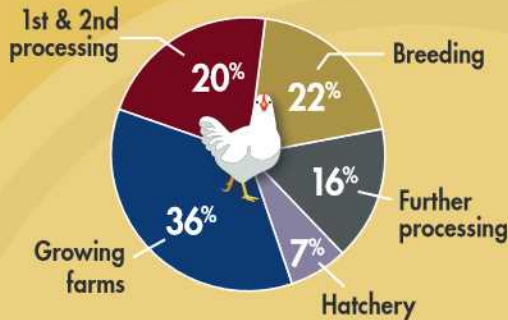
We have heard a lot in the media about cell-cultured meat and high-protein plant-based alternatives to meat in the popular and business press over the past few years. Attendees were asked what they thought will be chicken's biggest competitor for the center of the plate in the U.S. in 2035. “Beef and pork” were chosen by nearly three quarters of respondents and “high-protein plant-based products” were named by one in six respondents. (Figure 3).

Some of the Summit speakers and panelists stressed the need for the broiler industry to engage more with consumers, regulators and activists. They

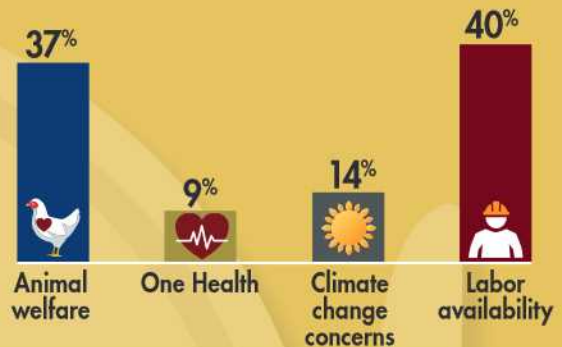


# US broiler supply chain gets ready to serve Gen Z

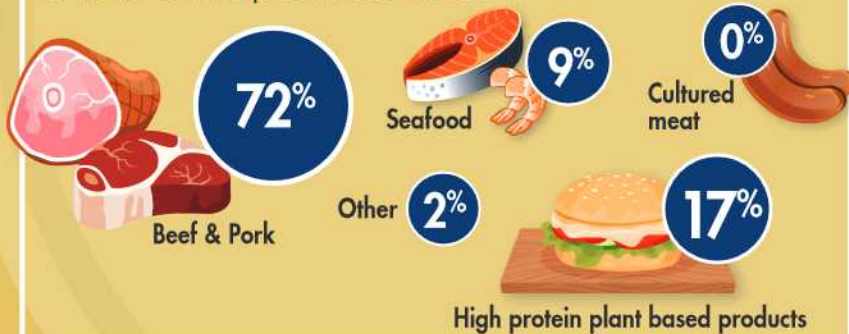
**FIGURE 1** This aspect of broiler meat production will experience the most significant changes over the next 10 years.



**FIGURE 2** What will have the most impact on changing how broilers are raised and processed?



**FIGURE 3** I think that the biggest competitor in the U.S. for chicken for the center of the plate in 2035 will be?



**FIGURE 4** If your organization continues with its present level of engagement with consumers, activists & regulators, how do you think that your company will fare in 2035?

Easily meet all of their expectations

**54%**

Struggle to meet expectations

**41%**

Be looking for another protein to sell or produce

**5%**

**FIGURE 5** Which statement do you think will have the biggest impact on chicken production in 2035?

	All Attendees	First-time attendees
Sustainability and animal welfare will be even more important	39%	50%
Price will be the top purchasing factor	43%	30%
Alternative proteins will become more popular	0%	0%
Technology will make it easier to purchase and prepare chicken	18%	30%

Infographic by Tess Stukenberg  
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## » NEXT ON THE PLATE Food Safety & Processing Perspective BY TERRENCE O'KEEFE

said that the industry needs to be transparent and start the conversation rather than wait to respond to challenges. Attendees were asked to respond to the question: “if your organization continues with its present level of engagement with consumers, activists & regulators, how do you think that your company will fare in 2035?” Just over half said that their company would “easily meet all of their expectations.” Slightly less than half said that their company would “struggle to meet expectations” or “be looking for another protein to sell or produce.” (Figure 4)

Attendees were asked to finish the following statement: “when I think about Gen Z and Gen Alpha being my primary customers...,” 71% of respondents chose the response “I think that we can adapt and meet any new expectations” and 29% chose “I relax because once people start paying bills, attitudes change.”

Finally, we asked all attendees to select the statement they think will have the biggest impact on chicken production in 2035. “Price will be the top purchasing factor” and “sustainability and animal welfare will be even more important” were very close to each other as the top responses. The Summit’s first-time attendees were asked the same question at the Summit’s opening reception. Half of the “first-timer” respondents selected the response “Sustainability and animal welfare will be even more important,” while 30% said that “price will be the top purchasing factor.” (Figure 5)

I invite you to join us at the 2025 Chicken Marketing Summit July 28-30 at the DeSoto Savannah Hotel and be part of the discussions and conversations as the broiler industry strives to meet the expectations of the consumers of today and tomorrow. ■

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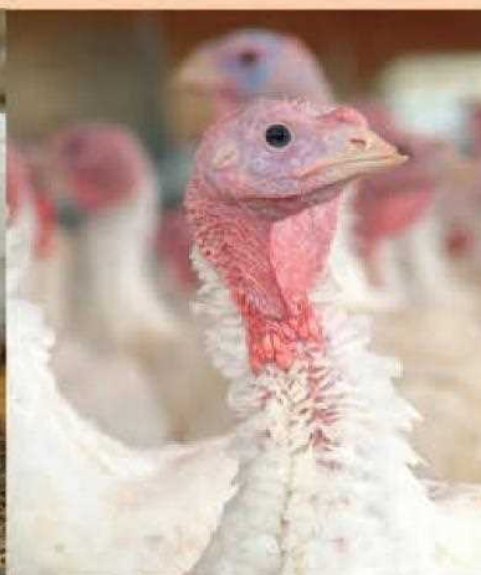
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# Biosecurity remains key to stopping HPAI in poultry

What's changed, what hasn't when it comes to preventing disease outbreaks in broilers and turkeys.

ELIZABETH DOUGHMAN





**T**he current 2022-2024 highly pathogenic avian influenza (HPAI) outbreak highlights the crucial role of proactive action and planning to keep poultry facilities disease free.

HPAI has devastated the poultry industry, particularly in commercial turkey production. More than 14 million turkeys have been depopulated because of HPAI, nearly triple the 6 million broilers impacted.

The dairy industry has also seen H5N1 infections, which it calls bovine influenza A virus (BIAV). More than 165 cattle in 13 U.S. states have tested positive for the virus since the first case was reported in March 2024 in Texas.

In addition, the virus can and has spread to workers in poultry barns, making biosecurity more important than ever.

In July 2024, the U.S. Centers for Disease Control (CDC) reported that industrial fans in a commercial poultry barn may have been to blame for H5N1 infections among workers involved in the depopulation of a flock with the virus. Strong breezes from the industrial fans may have made it difficult to keep personal protective equipment (PPE), including Tyvek suits, boots, goggles, gloves and respirators, in place, the report said.

Although the human H5N1 infections were reported in those working at a layer operation, this could just as easily have occurred at a broiler facility.

### **The first barrier to disease transmission**

Because HPAI is highly contagious, biosecurity is the very first barrier to prevent disease transmission on commercial poultry farms and economic loss, said Gisele Ravagnani, DVM, technical marketing manager, North America, Lanxess.

“Disease outbreaks can have severe economic consequences for the poultry industry. Measures such as quarantine, restricted movement and biocontainment protocols help minimize the impact of diseases by preventing their introduction and spread, thereby safeguarding the industry’s economic stability,” she added.

As a result of the current outbreak, producers have become more proactive when it comes to biosecurity; however, many of these principles remain the same no matter what the disease. Constant vigilance and awareness, the monitoring and reporting of potential risks and

## BIOSECURITY REMAINS KEY TO STOPPING HPAI IN POULTRY

renewed emphasis on regular training for farm personnel remain the bedrock of any biosecurity program.

Other important aspects of biosecurity protocols include PPE, strict



**Gisele Ravagnani**

Lanxess

access control to farms, surveillance and disease monitoring, and cleaning and disinfection protocols for equipment, vehicles and personnel.

There are two primary approaches to disinfection on poultry farms, terminal disinfection and continuous disinfection.

Terminal disinfection refers to the thorough cleaning and disinfection process that occurs between

flocks. It is typically conducted after the removal of birds from a facility or when a section of the farm is emptied. The goal of terminal disinfection is to eliminate any remaining pathogens and prepare the environment for the next group of birds.

Conversely, continuous disinfection involves ongoing measures to maintain a clean and pathogen-free environment within poultry houses throughout the production cycle. While terminal disinfection focuses on thorough cleaning between flocks, continuous disinfection aims to prevent the buildup of pathogens and maintain hygiene on an ongoing basis.

“Although the basic principles of biosecurity measures remain unchanged, outbreaks have been strengthening how these measures are being implemented in poultry

farms worldwide. There has been a heightened emphasis on controlling access to farms, implementing strict sanitation protocols and improving surveillance to prevent the introduction and spread of the virus,” Ravagnani explained.

### New ideas in air sanitation

When it comes to biosecurity, the old adage “an ounce of prevention is worth a pound of cure” applies. There is no cure for HPAI, so right now a poultry producer’s best tool is finding ways to prevent the spread of the virus. Contaminated air is one way that diseases and viruses like HPAI can be transmitted into a facility.

“This tends to be the most difficult transmission form to curtail. Since



**Aaron Stephan**

Signify

farms require a large amount of air exchange, the air intake would need to be filtered or sterilized, which isn’t very practical, Aaron Stephan, Ph.D.,

director of research and innovation for the animal lighting division at Once by Signify, said.

“Air sanitization via germicidal ultraviolet C (UVC) light is a promising avenue that we and others are looking into. In that case the limiting factor is ensuring that enough UVC dose is delivered to achieve adequate disinfection.

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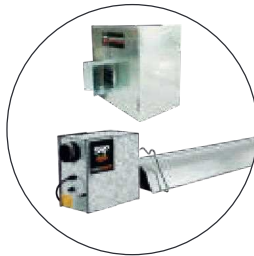
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## BIOSECURITY REMAINS KEY TO STOPPING HPAI IN POULTRY

and other pathogens, destroying their ability to multiply and cause diseases.

The use of UVC disinfection at air intakes has not yet been tested at poultry facilities; however, the technology has successfully been used to disinfect office settings using UVC luminaries aimed at the ceiling, so it shows promise as a potential solution for the future.

“Most of the effective biosecurity strategies are time-tested and work well. It’s not very complicated; limit the farm-to-farm and wild-to-farm contact of animals, people, feed, objects, waste and air. When contact cannot be eliminated, cleaning and disinfection are the next best thing,” said Stephan.

### Innovations in biosecurity technology, training

The need for effective training and execution will always be critical to maintaining biosecurity in poultry houses, but the way that training is implemented may change as tech-



**Dr. Gene Shepherd**

Cobb

nology evolves.

“Technology, in many different forms, will play a larger role in effective biosecurity in the future (e.g., controlling physical access to facilities; trace-

ability of birds, people and equipment movement; visual audits and inspections by remote connection, etc.),” said Dr. Gene Shepherd, managing director

of world quality assurance and veterinary services, Cobb.

Training on biosecurity protocols should be specifically focused at the caretaker and service technician level.

“Caretakers usually spend more time at their facilities than anyone else, along with service technicians traveling from farm to farm, so it is crucial that they understand the importance of biosecurity and that execution of the plan is critical for disease prevention and spread,” he added.

Biosecurity training should stay simple, with the use of as many visual aids as possible. A picture can be worth a thousand words to visual learners.

However, don’t assume written and oral training is enough. Regular monitoring ensures understanding and compliance, especially through field observations.

“Disease introductions can be frustrating and costly for everyone involved, but do not let them discourage your efforts. It is important to investigate the areas of opportunities and use them to bolster your biosecurity program to prevent future occurrences,” advised Shepherd.

### A chain only as strong as its weakest link

Regardless of whether poultry facilities are using new biosecurity ideas or tried and true methods, a

holistic approach to biosecurity is vital to disease prevention.

“We cannot piecemeal biosecurity. Think of it as links in a chain, keeping in mind that a chain is only as strong as its weakest link. No detail is too small. We’re creating an invisible perimeter around our complexes with the assumption that everything outside that perimeter is a



**Stuart Heller**

Neogen

potential threat,” said Stuart Heller, biosecurity specialist, Neogen.

Important links in a biosecurity chain include asking

scheduled guests to a poultry farm to disinfect shoes before entering a house and decontaminating incoming supplies in a fumigation room.

“We know from experience that large amounts of virus can be spread in small amounts of organic material, so let’s not leave anything to chance,” he explained.

“Biosecurity works, and the implementation of a comprehensive biosecurity doesn’t cost, it pays. It’s important that the industry not get caught up in complacency. It’s always been the same cycle: a virus breaks, comprehensive measures are instituted, the virus passes, we get a little lax and the virus returns. If we’re waiting until the virus is on our doorstep, it’s too late.” ■



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If there is no apparent health issue or water issue that would cause the feed conversion problem, the conversation turns to bird and poultry house environment management.

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## Better feed conversion in broilers is all in the details

Producers often overlook these common management components to optimize broiler weight gain.

BRIAN FAIRCHILD

I receive a lot of calls and e-mails regarding issues with feed conversion and weight gain in broilers. The conversation starts off with several questions such as how long the birds are in the house, how long the farm has been experiencing the problem and if the issue affects every flock throughout the year or is it a seasonal issue. Typically, the answer to the latter question is every flock regardless of the season.

Many people who contact me want to focus on

bird health as the main issue related to their feed conversion problem; but in most cases, there are not any differences in mortality, and necropsies done by flock supervisors or veterinarians did not indicate any health issues.

The next thing many people turn to is water quality. Water quality is important, but in many cases the farms do not have a water issue or usually already have a water treatment system that sanitizes the water. However, do not overlook





water. Water should be tested and verified that the quality is in the range for poultry. That information is available online in several extension publications.

Another aspect of the water system is to make sure that the water supply is capable of meeting the house's peak water demands which would be when the lights come on in the mornings and birds are drinking a lot of water. In addition to this, the water supply should be enough to run the evaporative cooling system on the hottest day of the year with market age birds, while still meeting the birds' water consumption demand.

Once these questions have been verified to meet the requirements of the birds and there is no

apparent health issue or water issue that would cause the feed conversion problem, the conversation turns to bird and poultry house environment management.

## The brooding period is crucial

The conversation spends quite a bit of time focused on the brooding period. The first week is an important part of a successful flock.



**When too many birds are present in one part of the house, the front of the house for example, the high stocking density leads to a more rapid degeneration of litter quality.** *Courtesy University of Georgia*

It is essential to remember that chicks are immature at hatching and that improper management in the first week can result in reduced growth, poor feed conversion and higher mortality. This could be the root of issues in the flock later because development of digestive, immune, thermoregulation, skeletal and endocrine systems may be compromised in that first week as the chick devotes more energy to alleviating the stress caused by poor management.

## Housing and density considerations

One of the questions I ask is whether the farm is using partial house brooding or whole house brooding. Bird density can influence perfor-



**Keeping the birds spread out is equally important and requires that migration fences are used by each flock throughout the year.** *Courtesy University of Georgia*

mance, and getting the birds distributed evenly down the length of the house is important; but it can be a challenge after turning the birds out after being brooded in half the house.

When too many birds are present in one part of the house, the front of the house for example, the high stocking density leads to a more rapid degeneration of litter quality. A higher bird density in one zone of the house can result in warmer bird temperatures in those areas and can generate more competition for feeder and drinker space.

Keeping the birds spread out is equally important and requires that migration fences are used by each flock throughout the year. Ideally there would be a fence placed every 100 feet down the length of the house. In a 500-foot-long poultry

## BETTER FEED CONVERSION IN BROILERS IS ALL IN THE DETAILS

house, this means that a minimum of four migration fences would be used.

### Chick feeder management

If the bird distribution down the length of the house is not an issue, then the conversation goes to discussing management of chick feeders during the brooding period. It is common to provide extra feeder space during the first 7-14 days, and the exact length of time will differ among different integrators.



**If the bird distribution down the length of the house is not an issue, then the conversation goes to discussing management of chick feeders during the brooding period.** *Courtesy University of Georgia*

There are several types of feeders that are utilized during this period of time, but it is important to manage them all correctly to make sure that chicks can access the feed easily but that feed is not wasted on the floor by the birds.

### Temperature and humidity

The discussion then turns to factors like temperature, relative humidity (RH), air quality and even light programs.

The set temperature usually starts between 90-95 F and will vary depending on house type, heater type and whether the house has a circulation fan system. The temperature will typically decrease 5 F each week.

However, bird behavior should be monitored

as much as possible during the first week. Their behavior will indicate whether they are too warm or too cool and that will determine when the reduction in the house set temperature should be reduced or increased.

Bird manure is another item that should be monitored, including looking for the presence of fecal material (usually a dark strip) on the rear of the birds under the cloaca. If the consistency of the manure is more runny than solid or there is the presence of a fecal strip under the cloaca, this could indicate temperatures are too cold or warm. Bird behavior, in addition to the house temperature history, will determine if it is too cold or too warm.

The house minimum ventilation rates should be set to maintain the house RH less than 60%. This will help maintain the moisture balance within the house and maintain better litter quality. Better litter quality or drier litter is associated with lower ammonia, lower incidence and severity of foot pad dermatitis, and drier litter can slow the growth of bacteria in the litter as well. The effort of maintaining the RH less than 60% has resulted in many positive outcomes in the cases that I have been involved in.



**Utilizing the proper circulation fan system can reduce temperature stratification, move warm air to cooler parts of the house and move more air across the floor contributing to moisture removal from the bedding.** *Courtesy University of Georgia*





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## BETTER FEED CONVERSION IN BROILERS IS ALL IN THE DETAILS

I cannot overstate the importance of having and using a circulation fan system. Utilizing the proper circulation fan system can reduce temperature stratification, move warm air to cooler parts of the house and move more air across the floor contributing to moisture removal from the bedding. Circulation fan systems have also been shown to lower heating costs compared to houses that do not have them or do not utilize them correctly.

While we are discussing house systems, it would be remiss to not discuss house tightness. Static pressure tests to evaluate house tightness should be conducted at least annually and preferably a couple of times a year.

Tighter houses not only mean losing less warm air or allowing cold air to enter through cracks, but it means more air is entering through the inlets. That means more air is getting preconditioned before it comes into contact with the birds and the floor. This helps remove more moisture from the house, and as that air moves across the floor, it helps keep the bedding drier as well.

### Lighting

Do not forget that the light program can influence bird behavior and physiology. During brooding, keys to successful starting of birds means the chicks should be active and encouraged to move about the house to find food, water and heat sources. Bird activity levels are positively correlated with light intensity. The brighter the lights the more active the chicks are. The variation in light intensity should be no more than 20% between the brightest point of the house to the darkest point of the house.

One last point to consider in a light program is to

provide chicks a dark period from the first day they are placed on the farm. Recent research has shown that this program has not had any negative impacts on broiler performance. The birds grew a little slower the first week, which might have some benefits like allowing the birds to mature physiologically. Field trials suggested that broilers under this program had fewer lame birds compared to programs that provided near continuous light for the first four to seven days.

### Conclusion

While feed conversion issues can be due to bird health issues, in many calls I get that is not the case. Getting the birds off to a good start and providing an environment for the birds that provides a temperature within their comfort zones as they grow are important steps in getting better feed conversion.

Moisture is the root of many of the issues in poultry production (foot pad dermatitis, ammonia, respiratory health issues, etc.), so ventilating to maintain the house RH below 60% has helped many farms perform better in past cases that I have helped with.

Getting the birds evenly spread out along the length of the house and keeping them evenly distributed during the growout period not only reduces stress and provides a better house environment but ensures that birds have optimal access to feed and water space.

In order to get the best feed conversion, one must get as many of these details right as possible. ■

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*Brian Fairchild, Ph.D., is a professor/extension poultry scientist with the Poultry Science Department, University of Georgia; e-mail: [brianf@uga.edu](mailto:brianf@uga.edu).*



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# Green packaging for poultry: Trends and benefits

Is it time for the poultry industry to switch to recyclable, compostable options?

EMMA COTTRELL

**A**ll food production companies — poultry or otherwise — are under pressure to go green. Switching to environmentally sustainable packaging is one of many ways to achieve that goal.

Whether it be from governmental regulations or shifting consumer preferences, producers are feeling the heat.



## Green packaging and consumer trends

Consumers are more discerning when it comes to



**Chris DuBois, EVP  
fresh/protein practice  
leader** *Courtesy Circana*

environmental sustainability, and they express that using their purchasing power.

According to Chris DuBois, EVP fresh/protein practice leader, Circana, sustainable packaging is one of the best ways a producer can get these consumers' attention when they are grocery shopping.

Since the package is the first thing they see on the shelf, "...packaging becomes sometimes more important than the product itself," he said.

But, when it affects their wallet, consumers are a bit more hesitant.

"I would say there's always a lot of brave talk from consumers or a lot of aspirational reads off of surveys for people who say they want to pay more..." said DuBois. "But...a lot of the surveys will come back to say, 'oh, gee, people pay 10, 20, 30% more.' The most we've seen in tangible ways tends to be in the 5-10% range."

So, if fewer consumers care about sustainable packaging than previously thought, why should producers make the switch?

According to DuBois, retailers are actually driving much of the demand. Multiple retailers have brand identities around sustainability, natural and organic products, and more and want products on their shelves that align with those values.

Producers also need to manage their expectations when it comes to how much extra a product with sustainable packaging can cost.







Sustainable food packaging is made of many different materials like biodegradable plastic and cellulose.

Good Start Packaging

“The way I would say it to manufacturers is this needs to be part of your product improvement



**Melanie Bandari, senior marketing manager**

*Courtesy Amcor*

stream overall, not just product, but packaging and the whole bit,” said DuBois. “So don’t expect a ton of payback from extra money; expect a payback from increased market share over time.”

But packaging is not one-size-fits-all, so, with so many options, how can a producer determine what packaging is right for its products?

“Different products require different packaging solutions, and each solution has different performance and environmental trade-offs,” said Melanie Bandari, senior marketing manager, Amcor.

So, let’s look at the different types of sustainable packaging available on the market today.



## Recyclable plastic: Pros and cons

One of the primary — and most popular — sustainable packaging categories is unsurprisingly recyclable plastic. It comes in an alphabet soup of varieties, for example: recycled polyethylene terephthalate (rPET), amorphous polyethylene terephthalate (APET) and crystallized polyethylene terephthalate (CPET).

The material’s popularity can be attributed in part to its versatility; it can be hard or flexible, opaque or transparent. And not only is this packaging recyclable, but it can also be made using post-consumer recycled (PCR) content.

As part of their goal to reduce waste and lower their carbon emissions, many poultry producers have committed to converting — at least in part — to recyclable packaging in the past few years, including Moy Park, HKFoods, CP Foods and BRF.

In addition to its versatility and environmental benefits, converting to recyclable plastic can also appeal to more environmentally conscious consumers.

“Mainly it’s an easy transition for many companies, rPET feels more eco-friendly than regular PET

## GREEN PACKAGING FOR POULTRY: TRENDS AND BENEFITS

[polyethylene terephthalate].” said Dana Mazzarelli, Good Start Packaging. “It also has the same performance, and, in many cases, the same companies that manufacture PET items also produce rPET ones.”

Some producers may not have the choice to make the switch. Regions in the EU and some U.S. states such as California have regulations on the books requiring plastic packaging to consist of a minimum amount of



**Tiffani Burt, VP, food materials innovation and development**

*Courtesy Sealed Air*

recycled plastic.

But recyclable plastic can have its downsides.

Plastic can only be recycled about two to three times before it starts to lose its durability, said Mazzarelli, defeating the purpose of recyclability.

Recyclable plastic may also not be a long-term solution because, according to Good Start Packaging’s website, “approximately 93% of all the plastic we throw out each year never reaches a recycling facility but ends up in a landfill anyway.”

Both Bandari and Tiffani Burt, VP, food materials innovation and development, Sealed Air, echoed this point. There is no concrete U.S. or global recycling infrastructure, meaning that recyclable packaging may end up in a landfill alongside regular plastic, never to be recycled.



### Compostable: Pros and cons

So, if recyclable plastic may not be the best long-term solution, what about compostable packaging?

Growing in popularity, compostable packaging is made out of a variety of different plant-based materials, for example: wheat straw fiber, cellulose and bamboo.

One example made from cellulose — the cell walls of plants — can contain protein products and can biodegrade in a home compost in six months or at an industrial composting facility in three months.

“Compostable packaging in the fresh protein sector

makes strategical sense due to the challenges associated with the residual contamination impacting recycling of traditional plastics,” said Burt.

Plastic must be clean and dry to be properly recycled, or else it can contaminate other recyclables or cause complications at the recycling facility — that is if it makes it to the facility in the first place. This puts the responsibility on consumers.

Compostable packaging can help alleviate this imperfect system.

“Also, a piece of plastic trash on the side of the road is essentially the same thing whether it’s PET or rPET, which is why it’s not exactly a long-term sustainable answer,” said Mazzarelli. “Less single use plastics and more compostable materials seems like the better option compared to rPET.”

Despite this, Mazzarelli did acknowledge that not all compostable materials are suitable for fresh protein products; the biomaterial used and how the packaging is made can impact its heat resistance and absorption.

This is where bioplastics could be a solution.

Bioplastics, also known as bio-resins, are almost like a compostable version of plastic. Different kinds of bioplastic include polylactic acid (PLA), polyhydroxyalkanoates (PHA), talc-filled polylactic acid (tPLA) and crystallized polylactic acid (cPLA).

“Bio-based materials offer a great alternative for brands seeking to improve the environmental profile of their packaging,” said Bandari. “Unlike traditional resins that are produced from depletable fossil fuels, bio-based resins are derived from renewable resources such as sugar cane, corn, potatoes, rice, soy, wheat and trees. Additionally, using bio-based resins often contributes to a lower carbon footprint compared to traditional resins.”

Bioplastics come in a variety of different forms from bags and boxes to utensils and coffee lids, and, depending on the formula, have differing levels of heat and absorption resistance ■



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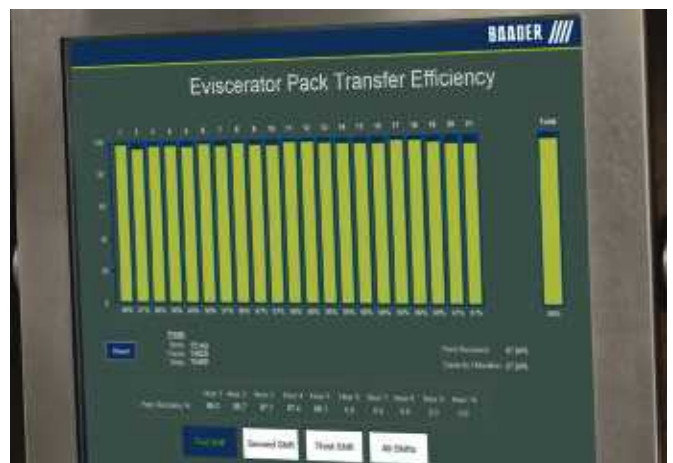






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# Defining sustainability in poultry can be challenging

Because there are varying definitions of what sustainability success is, making achievements in the area can be tricky for poultry producers.

MEREDITH DAWSON

**S**ustainability in the poultry industry influences everything, including the consumer, producer, environment and financial status. Because sustainability touches each part of the poultry supply chain, determining which aspect(s) of sustainability to tackle as an operation can be challenging.

According to Ben Putman, analytics manager, Aligned Incentives — a sustainability organiza-



**Ben Putman,**  
analytics manager,  
Aligned Incentives

*Courtesy Aligned Incentives*

tion — sustainability should not be viewed as an endpoint or a goal for producers, but as the collection of practices and strategies that ensure the long-term viability of the poultry industry, balancing environmental, economic and social concerns.

“Sustainability in the poultry industry is not just about minimizing impacts but also about promoting positive outcomes that the poultry industry can have on people and the planet,” he stated.

## What makes defining sustainability difficult?

Because sustainability is multidimensional and often involves competing interests, Putman explained, it can be difficult to define when considering the poultry industry’s significant impact.

“The definition of sustainability in the poultry industry can vary depending on the stakeholder, e.g., producers, consumers or policymakers,” he said.

When birds are in production, those birds interact

with the farm, producer, environment, consumer and the company’s bottom dollar. All these variables impact how a producer will grow its birds and how the industry goes about managing each of these aspects.

Additionally, Putman believes that when making a change to improve sustainability in one area of production, there will always be trade-offs that poultry producers need to consider because the definition of sustainability depends on the point of view and circumstances.

“Improvements in one area may be at the expense of another. Furthermore, sustainability is local. What may be beneficial in one region may not be in another. All these aspects make it difficult to define sustainability in the poultry industry,” he stated.

Even though trade-offs are inevitable, Putman said that the problem can be eased with the right, long-term goals in mind.

“I think that if the industry maintains a flexible and holistic approach to sustainability with the goal of continuous improvement across social, economic and environmental dimensions, the outcomes can be somewhat balanced over time,” he stated.

Outside of poultry, the influence of sustainability in other protein sources also affects how sustainability is defined.

“There is competition for resources to consider. For example, soybean demand in livestock production can drive up land use. There are also the environmental comparisons. We see that chicken has a much lower carbon footprint than beef; however, plant-based meat alternatives have been shown to be even lower.”

Even though the influence of other proteins is



unavoidable, Putman believes that poultry companies should define sustainability in terms of what strategies and practices have the best outcomes on the economic, social and environmental viability of the industry.

### What should producers prioritize?

According to Putman, the most important aspect of sustainability that poultry producers should prioritize is long-term economic viability as part of a holistic approach to sustainability. This is because poultry producers that are financially viable over an extended period of time are better able to make the investments and implement the practices that have been shown to improve environmental and social outcomes.

Additionally, concentrating on economic sustainability will be critical in meeting the consumer demands for environmental sustainability in the poultry industry, he explained.

“The poultry industry has been trending on a path of continual improvement for several decades, but I think the

demand from consumers for more sustainable food production will become even more of a factor,” Putman stated.

When looking at environmental sustainability, the poultry industry has made substantial gains over the past several decades thanks to improvements in bird genetics, crop farming and nutrition. However, Putman is concerned that improvements in these areas have reached their full potential.

“I’m not sure that these aspects will continue to provide the same level of improvement into the future. I think the industry will continue to innovate and find new ways to improve the sustainability of poultry production.”

### Tools to help producers measure sustainability

Because sustainability can be difficult for the poultry industry to assess, the U.S. Roundtable for Sustainable Poultry and Egg (US-RSPE) created a reporting system that allows its participants to voluntarily measure and verify their sustainability status.

**Because sustainability is multidimensional and often involves competing interests, it can be difficult to define when considering the poultry industry’s significant impact.** carloscastilla | BigStock.com



## DEFINING SUSTAINABILITY IN POULTRY CAN BE CHALLENGING

The framework, launched in 2023, is organized into three pillars: people, planet and poultry. Each pillar contains indicators that are important to the poultry and egg supply chain such as food security, antibiotic stewardship, land use, water usage, air quality, animal health, biosecurity and more.

The purpose of the system is to help producers gain insight into its company's sustainability efforts and help the industry measure and communicate with stakeholders about the

sustainability status of the U.S. poultry and egg supply chains.

According to Ryan Bennett, US-RSPE executive director, the organization is trying to capture data in an organized way that allows the producer to tell its story.

"We are trying to take what can be a confusing space for producers and give them a place to get started in their sustainability journey and allow them to track and communicate their progress over time," stated Bennett. ■



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A large group of brown LaBelle Patrimoine chickens are shown in a field. The chickens have reddish-brown feathers and red combs. They are standing on dark, moist soil with some green plants and leaves visible in the background. The lighting is natural, suggesting an outdoor setting.

LaBelle Patrimoine is French for “The Beautiful Heritage;” these birds are slow growing, taking about twice as long to reach maturity as conventional birds.

*Courtesy LaBelle Patrimoine*

# Labelle Patrimoine: An unconventional approach to success

Slow-growing broiler breed takes root in U.S.

PATRICIA MAY

**L**aunched in April 2020 in Lancaster, Pennsylvania, LaBelle Patrimoine is a family-owned business dedicated to raising heritage breed poultry. LaBelle Patrimoine is French for “The Beautiful Heritage;” these birds are slow growing, taking about twice as long to reach maturity as conventional birds. CEO and founder Mike Charles went on a quest to find the perfect bird; he discovered the breed

he was searching for in France, where he was able to source a strain utilized on Labelle Rouge programs.

## Production protocols

As a sixth-generation farmer, Charles is dedicated to ensuring that his children and future generations of farmers can carry on a tradition of sustainable farming. Sustainability practices



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## LABELLE PATRIMOINE: AN UNCONVENTIONAL APPROACH TO SUCCESS



**Mike Charles** Courtesy LaBelle Patrimoine

include focus on and care of the soil, which earned the company the designation of U.S. Department of Agriculture (USDA) Approved Regeneratively Raised.

Enriching the soil through no-till farming, planting cover crops and conserving biodiversity are the hallmarks of regenerative agriculture. Sourcing local supplies, using fuel-efficient vehicles and employing direct transportation routes round out the company's sustainability efforts.

Charles explains that its farmer partners continue to use the best tried and true practices. At the same time, LaBelle Patrimoine is open to new ideas, constantly evolving and improving, "... to make sure we are doing right by the environment, our farmer partners, our flocks, our community and our customers who rely on us for the very best poultry products."





The health and welfare of the birds is the number one priority. Raised with no antibiotics ever (NAE) and certified as Global Animal Partnership (GAP) Step 4, these birds enjoy access to outside pasture, natural sunlight and enrichments such as perches and straw bales. LaBelle Patrimoine's chickens are third-party certified by Earth Claims to meet the GAP requirements.

The birds are not organic; they are fed locally grown corn and soy. The company works with key partners who hatch the chicks and provide the finished feed for the birds.

With only 35 employees, LaBelle Patrimoine is small enough to ensure excellent communications and strong relationships with each of its forty-plus farmers.

When asked how Labelle birds compare to conventionally raised chickens, Charles replied,

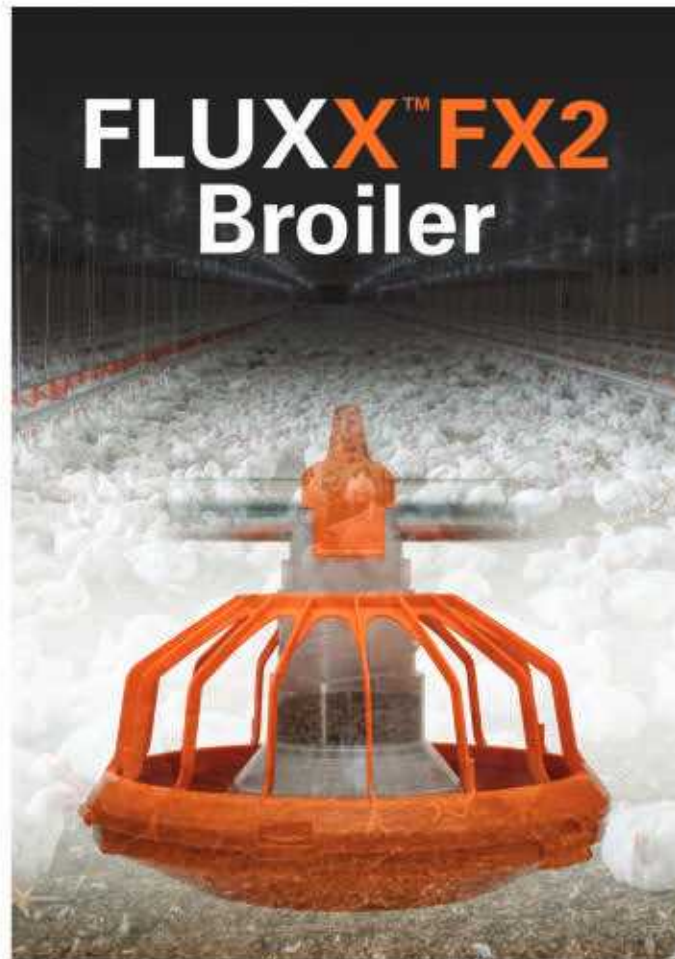
"I think our whole mission is to really prove that there's a market for this type of bird. Doing things differently can be sustainable ... part of being sustainable is really good for the family farms and it's even profitable. It's an outside of the box approach."

Typically the birds are 3 to 4 pounds dressed weight, 5 to 6 pounds live weight. The company works with a copacker in upstate New York to process the birds.

LaBelle's products include

**There is "no one-size-fits-all" approach; each Labelle Patrimoine poultry house is customized according to the needs of the individual farmer.**

*Courtesy LaBelle Patrimoine*



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## LABELLE PATRIMOINE: AN UNCONVENTIONAL APPROACH TO SUCCESS



### 5 steps to prepare to meet the Better Chicken Commitment

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*Courtesy Big Dutchman*

whole chickens, split whole and half, spatchcock, boneless breasts, bone-in breasts, wings, drumsticks and thighs, as well as ground chicken. Charles notes that the birds are air chilled, which, he says, results in a juicier and more flavorful product than conventionally raised birds. In fact, his grandmother said these chickens taste the way chicken used to taste.

### Available in retail, foodservice

LaBelle Patrimoine chickens were the first raised through the Global Animal Partnership's Better Chicken Project to be sold at Whole Foods Market. Whole Foods named LaBelle Patrimoine "All-Star Supplier of the Year for Quality and Innovation" in its first year as a supplier and again this year.

Charles notes, "We really could not ask for a more collaborative, supportive and available partner than Whole Foods Market. We've grown from providing our product to one region to now we serve more than 250 stores. This partnership really gives us hope for the future as it signals that there is a real market demand for our products and our commitment to sustainable and humane farming practices across the board."

The products are also sold in a number of specialty markets, including Mom's Organic Market, McCaffrey's Food Markets and Kimberton Whole Foods. Direct to consumer options include Fresh Direct, Misfits Market and Allen Brothers. LaBelle Patrimoine also has an e-store for consumers who wish to order directly from the company.

LaBelle Patrimoine products entered the food-service arena about a year ago, and are featured in a number of high end regional restaurants, including Philadelphia Distilling, Café le Jardin and the Vineyard de Norma.

Charles explained that the cost of the products depends on the retailers markup in general. He says, "LaBelle Patrimoine birds are typically priced in between antibiotic-free (ABF) and organic. All of our farms exceed organic standards, with the only thing different is we just don't use organic grain. We use locally sourced grain because that benefits the community by keeping it local, and for us that's more sustainable."

### "No one-size-fits-all" approach

Charles notes that the company has enjoyed double digit growth every quarter. He explains that there is "no one-size-fits-all" approach; each poultry house is customized according to the needs of the individual farmer.

Poultry houses may be new construction, or they may be renovated or refurbished conventional houses. Renovations could include adding windows and pasture access. One farm may raise 3,000 birds, while another farm may raise 30,000 birds. Small flocks or larger flocks, it all depends on what works best for the farmer.

There is a waiting list of farmers; in fact, the company gets calls weekly from interested farmers. "Thinking differently can be sustainable and good



for farms, and profitable,” he said. The company strongly believes in whole chicken utilization, using every part of the bird with nothing going to waste. With value-added products such as ground meat, bone broth and even pet food, everything is used but the cackle.

In addition to the heritage chickens, the company also produces organic eggs and raises heirloom turkeys. He noted, “heirloom turkeys will be on shelves this year. Let’s do an heirloom turkey and have the highest quality we can possibly have, with animal welfare standards that exceed any other standards out there. Maybe this doesn’t need to be year-round, but something special just for the holidays.”

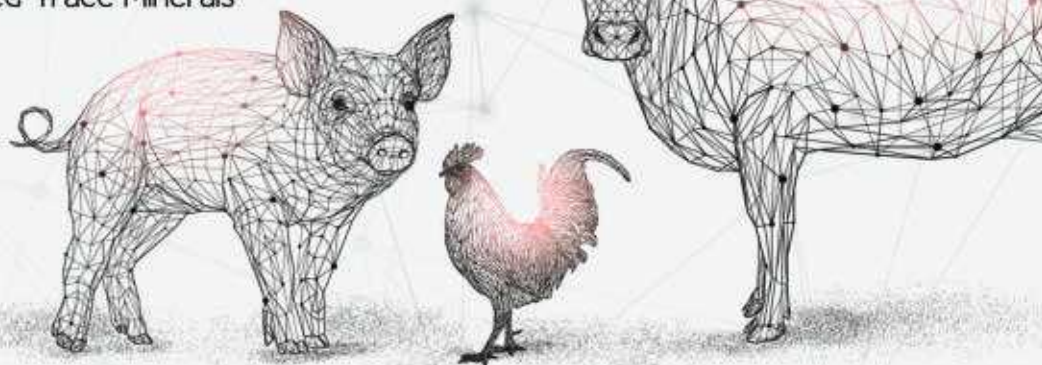
Charles sums it up by saying, “We’re doing something totally different. We are producing

great tasting, humanely raised, heritage air-chilled chickens. We can think differently and truly operate with care and respect and still be profitable and sustainable. I truly believe LaBelle Patrimoine is a better chicken, and we take different steps along the way to make sure that these birds are treated more humanely than any birds out there.”

The company’s tag line is “Grown as Promised.” Charles says, “I would like to create the legacy of integrity, just knowing that our chickens are grown as promised, and what we say we’re going to do, we do.” ■

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*Patricia May is a freelance writer based in Harrisonburg, Virginia. To contact May, email [plouisemay@yahoo.com](mailto:plouisemay@yahoo.com).*



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## Bring Minerals to Life



# Farmer Focus tells the farmer's story, upholds traceability



In-store packaging, website and social media that focused on growers resulted in the chicken producer being named 2024 Chicken Marketer of the Year.

ELIZABETH DOUGHMAN

**T**he primary objective of the 2023 Farmer Focus marketing campaign was to tell the stories of the growers behind its poultry products through in-store packaging, website and social media.

As a result of their marketing efforts, Farmer Focus was named the 2024 Chicken Marketer of the Year. The trophy was presented at the 2024 Chicken Marketing Summit held at the Renaissance Birmingham Ross Bridge Golf Resort & Spa in Birmingham, Alabama, on July 30.

The Chicken Marketer of the Year award honors exceptional efforts in retail, food-service, direct-to-consumer,

producer/integrator organizations and companies that have demonstrated innovative marketing and creative excellence in promoting chicken consumption.

The Chicken Marketing Summit is the essential

networking and educational conference for poultry business leaders. Serving a unique cross section of the chicken supply chain, the Chicken Marketing Summit explores issues and trends in food



Courtesy Farmer Focus



Listen to Farmer Focus discuss how they improved their consumer connection at [www.WATTAgNet.com/15681456](http://www.WATTAgNet.com/15681456)



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## FARMER FOCUS TELLS THE FARMER'S STORY, UPHOLDS TRACEABILITY



The award was accepted by Stephen Shepherd, CEO, Abi Vincill, brand manager, Dolan Patterson, Chief of Commercial Sales, and Garrett Lorton, Director of Sales, for Shenandoah Valley Organic/Farmer Focus. *WATT Global Media*

marketing and consumer chicken consumption patterns and purchasing behavior.

The Chicken Marketer of the Year award is presented by Poultry Future, WATTPoultry.com and WATT Global Media.

### Educating consumers on the farm to fork process

As part of its mission to promote and protect generational family farms, every Farmer Focus product is traceable back to the farm on which it was raised. The company's challenge for 2023 was to find a way to authentically and effectively communicate that

traceability to consumers.

"Farmers are the backbone of the global food system, and we take pride in being a voice for the growers at shelf. Our growers deserve the recognition of producing humanely raised, traceable and sustainable chicken that feeds millions," the company wrote in its submission for Chicken Marketer of the Year.

Farmer Focus chicken is sold in over 4,600 locations on the East Coast, providing the company with a unique opportunity to engage consumers with its packaging, which has a unique four-letter Farm ID and

QR code. Consumers can scan and enter the code to "meet" the farmer who raised their product on the Farmer Focus website. Each page includes pictures and a description of the farm/farmer.

A contact form offers consumers an opportunity to write directly to the growers.

On Instagram and Facebook, farmer features include video and photo content that shows who farmers are outside of the farm — their families, their hobbies and why they are passionate about farming. Additionally, any content with growers features their Farm ID



to reinforce traceability and provide another channel to learn more about the growers.

LinkedIn is a valuable platform to amplify Farmer Focus growers to industry audiences. Farm features and community activations further the company's mission of promoting and protecting generational family farms.

Over 1,000 consumers scanned a Farm ID to meet their farmer

each month. The success led to a new line of no-antibiotic-ever (NAE) products, the onboarding of more than 31 new growers and the furthering of the mission of promoting and protecting generational family farms. This campaign is unique in this category and performs well as more consumers are becoming loyal purchasers, and the trial is increasing in existing markets. ■



## Attend the 2025 Chicken Marketing Summit

The 2025 Chicken Marketing Summit will be held at the DeSoto Savannah in Savannah, Georgia, on July 28-30, 2025.

Serving a unique cross section of the chicken supply chain, the Chicken Marketing Summit explores issues and trends in food marketing and consumer chicken consumption patterns and purchasing behavior.

Registration will open in early 2025.

For more information, visit [www.chickenmarketingsummit.com](http://www.chickenmarketingsummit.com).

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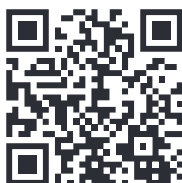
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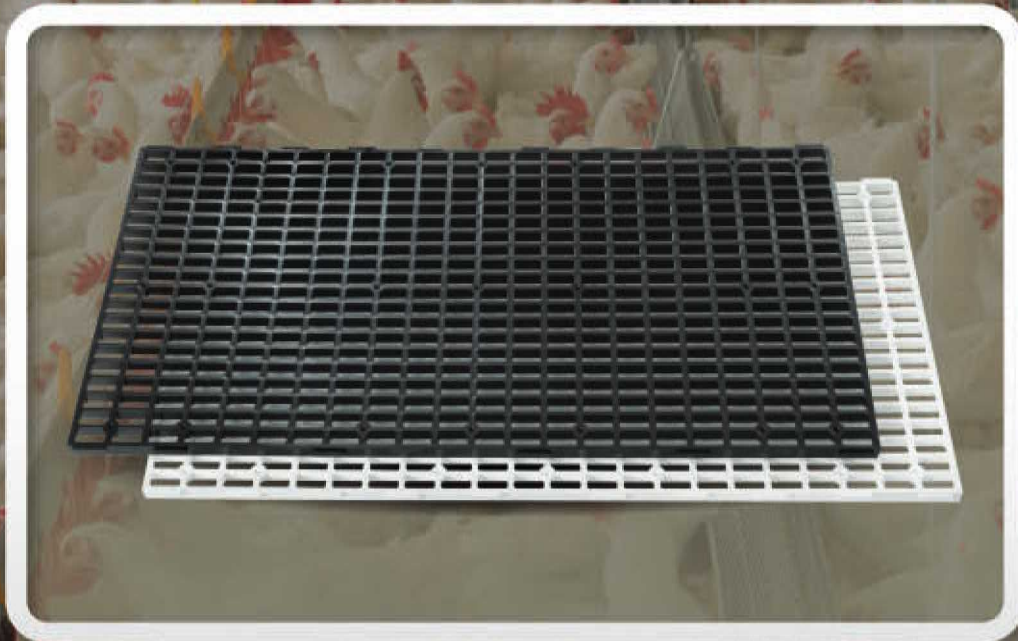
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