



THE EGG INDUSTRY CENTER

CONTRIBUTING TO A SUSTAINABLE EGG SUPPLY

2016



EIC IMPACT REPORT

LAST YEAR'S AVIAN INFLUENZA OUTBREAK WILL NEVER BE FORGOTTEN.

A time of devastating loss was also a time when producers, government, academia and allied industry formed a united front in the search for solutions. Many turned to the Egg Industry Center for answers, and we were reminded what an honor it is to serve such a resilient and committed industry.

While still recovering from avian influenza, the industry is now facing new challenges related to cage-free production. By 2025 – less than 10 years from now – more than half of the current U.S. laying inventory will be needed to meet the pledged demand for cage-free eggs. But what do we really know about cage-free production?

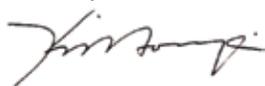
One thing is certain – that there are many unknowns. For example, how will cage-free production affect producers, consumers, hen health and well-being, and industry's carbon footprint? Even a widely-accepted definition of "cage-free" has yet to be solidified.

Change is meant to bring about progress, but when improperly planned and executed, it can result in unintended consequences. Research, and the resulting scientific data, helps ensure the outcomes of change are intentional and beneficial. With your continued support, the center has an opportunity to lead the egg industry in addressing this next wave of complex challenges.

While the industry has recently experienced volatility, the center has been fortunate to enjoy the steady and increasing support of donors, partners and friends. The impact of that support – on the center and throughout the egg industry – is described in this annual report. I urge you to read the pages that follow to gain an understanding of how your contributions elevate the center's mission and to see what's possible when we work together to ensure the vitality of a thriving egg industry.

At the Egg Industry Center, our goal remains the same: to work hard to provide value to the egg industry. My deepest gratitude to you for making that possible.

Thank you.



Hongwei Xin

Director, Egg Industry Center
C.F. Curtiss Distinguished Professor
Iowa Egg Council Endowed Professor
Iowa State University



HONGWEI XIN

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ADVANCING A THRIVING INDUSTRY

LAST YEAR'S AVIAN INFLUENZA OUTBREAK AND THE CURRENT MOVEMENT TOWARD CAGE-FREE EGG PRODUCTION HAVE BROUGHT UNPRECEDENTED CHALLENGES TO ONE OF THE WORLD'S MOST IMPORTANT AGRICULTURAL INDUSTRIES. THREATENING THE VIABILITY OF A SUSTAINABLE EGG SUPPLY WORLDWIDE, THESE CRITICAL ISSUES MAKE THE WORK OF THE EGG INDUSTRY CENTER – ADVANCING APPLIED AND FUNDAMENTAL RESEARCH, DISSEMINATING NEW AND RELEVANT SCIENTIFIC INFORMATION, AND INCREASING EFFICIENCIES THROUGH NATIONAL AND INTERNATIONAL COLLABORATION – MORE RELEVANT AND ESSENTIAL THAN EVER.

Established in 2008 by a visionary group of producers and academics, the center has gained national recognition for its value to the U.S. egg industry. Producers, research scientists, trade organizations and the media have come to rely on the center for its expertise and guidance.

Today the Egg Industry Center enjoys a global reputation as credible expert, reliable knowledge source and effective industry leader and partner. It's a reputation that is highly valued at the center and equally shared with you – the center's donors, partners and friends.

Thanks to you, the center has grown its endowment, enabling the support of myriad research projects addressing the industry's most critical issues.

Thanks to you, the center has built national and international partnerships that promise to advance the U.S. egg industry and a sustainable egg supply worldwide.

Thanks to you, the center continues to magnify its impact through monthly projection reports, forum events and the dissemination of information during times of crisis.

As you read about this year's endeavors in the pages that follow, know that they are only possible because of your generosity, curiosity and dedication to ensuring a thriving egg industry now and for years to come.

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INDISPENSABLE SERVICE

"THE EGG INDUSTRY CENTER'S WORLD-CLASS RESEARCH PROVIDES PRACTICAL SOLUTIONS TO EGG PRODUCERS IN NORTH AMERICA AND AROUND THE WORLD, AND HELPS TO ENSURE A SUSTAINABLE WAY FORWARD FOR THE ENTIRE INDUSTRY. THROUGH THE CENTER, STAKEHOLDERS CAN ENSURE A STRONG EGG INDUSTRY NOW AND INTO THE FUTURE. FOR THIS REASON, EGG FARMERS OF CANADA IS A PROUD SUPPORTER OF THE CENTER, ITS WORK AND THE INDISPENSABLE SERVICE IT PROVIDES TO NORTH AMERICAN PRODUCERS AND THE GLOBAL EGG INDUSTRY."

– **TIM LAMBERT, CEO,**
Egg Farmers of Canada



ENABLING BETTER OUTCOMES THROUGH STRATEGIC PARTNERSHIPS

RECENT EVENTS SUCH AS LAST YEAR'S AVIAN INFLUENZA OUTBREAK AND INCREASING DEMAND FOR CAGE-FREE EGGS HAS BROUGHT A LONG-STANDING CONUNDRUM TO THE FOREFRONT: THE URGENT NEED FOR EGG INDUSTRY RESEARCH JUXTAPOSED WITH A DECREASE IN PUBLIC FUNDING.

"The egg industry is facing critical issues with many unknown variables. Research is very much needed, yet where are the resources?" asked Hongwei Xin, director of the center. **"This is why it is imperative to have strong strategic partnerships."**

In addition to financial resources, strategic partnerships provide other benefits such as access to a wider scope of knowledge and technical expertise, increased efficiency by eliminating the duplication of efforts, a deeper understanding of constituent needs, and multiple perspectives that lead to enhanced innovation.

"Strong partnerships ultimately benefit everybody – the partner organizations, industry and consumers. In our case, partnerships help advance fundamental and applied research. Both are needed for a thriving egg industry," said Xin.



As the Egg Industry Center's reputation and credibility continues to grow, so have the number of organizations seeking to collaborate with the center. This year, the center has contributed to and reaped the benefits of

several national and international partnerships, some long-term and some recently formed.

INTERNATIONAL EGG COMMISSION

Thanks to the foresight of **Tim Lambert, CEO of Egg Farmers of Canada, vice chairman of the International Egg Commission and former member of the Egg Industry Center Advisory Board**, the center formalized a three-year partnership with the International Egg Commission that started in August 2015.

The partnership provides the center access to the world's industry experts and the opportunity to glean valuable knowledge for the U.S. egg industry. Simultaneously, the center will contribute its expertise on two committees: Avian Influenza Global Expert Group and Global Roundtable for Sustainable Egg.

"The roundtable is very timely, especially as we look at the movement toward cage-free environments. We need to determine whether this is sustainable long-term in the U.S. and other parts of the world," said Xin.

AMERICAN EGG BOARD

An early supporter of the center, the American Egg Board continues to be a valued partner. From donating research equipment and sponsoring the center's monthly economic reports, to collaborating on the hallmark 50-year environmental footprint study and contributing funds toward avian influenza research, AEB has consistently helped enable the center meet current and emerging needs of industry and consumers. As new AEB president and CEO Anne Alonzo takes the helm, the center looks forward to deepening an enduring and mutually beneficial relationship.

EGG FARMERS OF CANADA

"The egg industries of Canada and the U.S. have a lot in common. For example, both countries are developing guidelines for cage-free and other production systems. **There is a lot to share and discuss,"** said Xin.

ENABLING BETTER OUTCOMES THROUGH STRATEGIC PARTNERSHIPS

That's why the partnership between the center and Egg Farmers of Canada is ideal. Last year, the organization made a donation of 500,000 Canadian dollars to provide for avian influenza research. This enabled the center to be agile in a time of crisis and fund several research projects focused on helping all of North America fight this disease (see "Research Projects and Potential Solutions Multiply," page 5.)

Egg Farmers of Canada has also provided the center with new market projection software and is collaborating with Maro Ibarburu, associate scientist and business analyst at the center, to improve the accuracy of price and flock projection reports.

UNITED STATES DEPARTMENT OF AGRICULTURE

When it became apparent that the avian influenza outbreak of 2015 would be the most devastating event ever to hit the U.S. egg industry, the U.S. Department of Agriculture tapped the center for its expertise.

Since then, the center has collaborated with the USDA to create guidelines that will help protect industry from future threats. Research topics include air filtration, heat treatment of transport flats and timely depopulation of infected flocks.

ACADEMIC INSTITUTIONS

The center partners with academic institutions and scientists across the country and around the globe to leverage the talents and expertise of many scientists and their unique perspectives. The goal is to ensure more timely and innovative solutions to the industry's most daunting problems.

Current academic institutional partnerships include **University of California-Davis, Auburn University, Iowa State University, University of Minnesota, University of Georgia and University of Nebraska-Lincoln.** Collaborative partnerships with scientists include the countries of **Belgium, Brazil, Canada, China, the Netherlands, Switzerland and the U.K.**

GLOBAL RELATIONS

"THE PARTNERSHIP BETWEEN THE INTERNATIONAL EGG COMMISSION AND THE EGG INDUSTRY CENTER IS A FUNDAMENTAL PART OF OUR ORGANIZATION BEING IN CONTACT WITH IMPORTANT INDUSTRY BODIES SO THAT WE STAY INFORMED AND UNDERSTAND WHAT IS IMPORTANT TO THE EGG INDUSTRY INTERNATIONALLY. ONLY THEN CAN THE COMMISSION PERFORM ITS ROLE OF REPRESENTING THE EGG INDUSTRY TO INTERNATIONAL AND INTER-GOVERNMENTAL BODIES. ADDITIONALLY, THE PARTNERSHIP WITH THE CENTER HAS SPECIFIC AND DIRECT BENEFIT TO THE EGG INDUSTRY THROUGH OUR COOPERATION ON TACKLING AVIAN INFLUENZA AND THE CENTER'S PARTICIPATION IN THE COMMISSION'S GLOBAL EXPERT GROUP."

— **JULIAN MADELEY**,
director general, The International Egg Commission



Hongwei Xin with Wendy Wintersteen, dean of Agricultural & Life Sciences, and Anne Alonzo, AEB president and CEO, at the 2016 Egg Industry Forum in Chicago.

RESEARCH PROJECTS MULTIPLY POTENTIAL SOLUTIONS

WHETHER SOLVING IMMEDIATE PROBLEMS THREATENING THE INDUSTRY OR GENERATING NEW KNOWLEDGE THAT WILL INFORM POLICY, BUSINESS AND OTHER DECISIONS, APPLIED RESEARCH IS CRITICAL TO MOVING THE U.S. EGG INDUSTRY FORWARD. THAT'S WHY THE EGG INDUSTRY CENTER ENDOWMENT SUPPORTS RESEARCH THAT LEADS TO THE DISSEMINATION OF PRACTICAL, SCIENCE-BASED INFORMATION.

This year, thanks to growing support from the center's generous and forward-thinking donors, partners and friends, the center has invested more than \$630,000 in endowment funds to new and ongoing research projects that address the industry's most pressing issues.

ARE EGG YOLKS AN ALTERNATIVE TO SPRAY-DRIED PLASMA? YES ... AND MAYBE

In a business as enduring as the U.S. egg industry, it's challenging to find new product markets. But Phillip Miller, professor at University of Nebraska-Lincoln, and his research team may have done just that.

In their study, "The Effects of Egg Yolk on Piglet Growth, Health and Microbial Populations," UNL scientists compared the effects of egg yolk to spray-dried animal plasma in nursery diets on pig growth, health and microbiome populations. They concluded that growth performance and circulating immunoglobulins are similar in pigs receiving nursery diets containing egg yolk or spray-dried plasma. The team is still analyzing data related to the microbiome.

"There hasn't been a lot of work done with egg yolk and performance," said Miller. "While you hope to see more dramatic results, we at least know egg yolk doesn't have any deleterious effects, and there may be some instances where it works well."

Whether or not egg yolk catches on as an alternative to spray-dried plasma will likely depend on its cost, which has increased since last year's avian influenza outbreak. To compensate for this anomaly, Miller amended his economic analysis to include diet cost per unit gain at the study's starting and ending points.

"It's worthwhile to look at two points in time in order to be fair," said Miller. "If eggs add value at a lower cost, there could be a real demand for this."

And, reminded Miller, circumstances change. Even if the analysis does not show an economic benefit for egg yolk now, a future shift in market conditions could favor the use of egg yolk over spray-dried plasma.

"That's why we do research and share results with industry. If you just put it in a journal and never look at it, you'd never know about it," said Miller.

"THE ADVANCEMENT OF OUR SOCIETY IS INSEPARABLE FROM EVER-EVOLVING SCIENCE AND TECHNOLOGY. THE EGG INDUSTRY IS NO DIFFERENT."

– excerpt from an article in *Poultry Times*,
written by **Hongwei Xin**, center director

RESEARCH PROJECTS

MULTIPLY POTENTIAL SOLUTIONS

FIRST FUNDED RESEARCH PROJECT NEARS COMPLETION



CAUSES OF KEEL BONE ABNORMALITIES IN LAYING HENS HOUSED IN ENRICHED COLONY CAGES

Maja Makagon, assistant professor of animal science at University of California-Davis (study conducted while at Purdue University)



CAUSES OF KEEL BONE ABNORMALITIES

One of the first recipients of an Egg Industry Center research grant, Maja Makagon and her team have wrapped up their study that investigated the causes of keel bone fractures and curvatures from behavioral, biomechanical and anatomical perspectives.

After two years of research, Makagon and her team concluded the following:

- 1 The majority of keel impacts greater than 100-G were associated with collisions with perches, identifying perches as a potential risk factor for keel bone damage.
- 2 Collisions into other birds or caused by them also made up a large proportion of high-level impacts indicating the number of birds, available floor space, and/or bird interactions as potential sources of keel damage.

For more information on this and other research projects, view the Egg Industry Center Impact Report 2015 at www.eggindustrycenter.org/ABOUTUS

EGG INDUSTRY CENTER AIDS RESEARCH ON AVIAN INFLUENZA VIRUS

When the magnitude of last year's avian influenza outbreak became apparent, so did the critical need for research. Egg Industry Center donors and partners rose to the occasion by making significant contributions to the center's endowment. Egg Farmers of Canada, United Egg Association Allied and the American Egg Board each gave generously to support AIV research and help prevent another catastrophe.

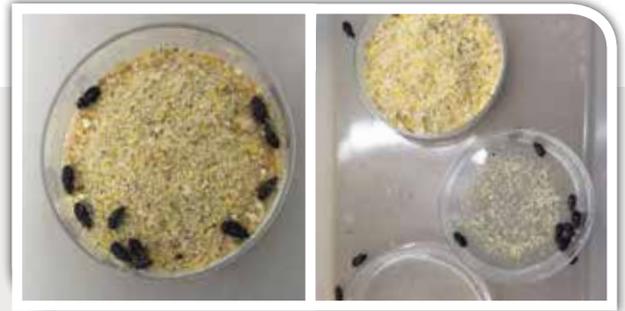
THE ROLE OF FEED, LITTER BEETLES, WATER AND RODENTS IN AVIAN INFLUENZA VIRUS TRANSMISSION

Joseph Giambrone and Ken Macklin, professors of poultry science at Auburn University

"The control of Avian Influenza Virus is extremely difficult because the virus can rapidly spread worldwide through migrating wild ducks and geese. Once established in a poultry population, it can mutate into various subtypes," said Joseph Giambrone, professor in poultry science at Auburn University. "The idea is for the industry to do everything it can to improve biosecurity and keep anything that can transmit AIV from getting into the house."

The Auburn University research team, led by Giambrone and Ken Macklin, also a professor in poultry science at Auburn University, are working on a project that aims to discover ways – in addition to wild water fowl – in which AIV can be transmitted into and among poultry farms. Over the course of 12 months, the researchers are examining four possible culprits: feed, darkling beetles, biofilm lining in poultry house water lines and rodents, to be done in three phases.

The first phase of the study was completed in summer 2016. It examined whether feed and darkling beetles, insects commonly found in poultry houses around the world, can result in virus transmission. The results showed that beetles, but not feed, can become infected and harbor AIV for a prolonged period of time. Therefore, insect control is important to minimizing the spread of AIV.



Propagation of a beetle colony used to evaluate AIV feed contamination.

Phase two investigated the role of biofilm in watering systems as a way of harboring the virus. Biofilm is a slimy, sticky substance produced by bacteria and commonly found in drinking water systems of commercial poultry houses. The study showed the virus was stable in the drinkers, but could be easily flushed out.

The final phase of the study will explore whether AIV-infected mice can spread the virus to other mice and how long the virus lasts in their fecal material.

When discussing the potential impact of this research, Giambrone said the study will "provide recommendations to farmers about what they need to do to reduce the spread of the virus."

He continued by saying, **"Our research will provide an economic advantage to the entire U.S. poultry industry.** Their initial small dollar research budget to investigate these critical issues has the potential to save millions of dollars in lost production from future AIV outbreaks."

UNDERSTANDING NEW HPAI VIRUSES AFFECTING THE U.S. POULTRY INDUSTRY AND THEIR PERSISTENCE

Rodrigo Gallardo, assistant professor of poultry medicine at the University of California–Davis

Scientists at University of California–Davis teamed up with the California Animal Health and Food Safety Laboratory to compare the persistence of HPAI (H5N2) and LPAI (H6N2) viruses in bedding, feces and disinfectant footbaths. The UC–Davis team then compared this information to biosecurity measures practiced at several farms.

“We don’t know much about the virus once it’s introduced into the barn. **Gaining knowledge about how long the virus persists and how it cycles within the premises could lead to changes in farming practices that can mitigate the spread of the virus,**” said Rodrigo Gallardo, assistant professor at UC–Davis.



Testing revealed that the highly pathogenic virus is very persistent, remaining active significantly longer than the low pathogenic virus. **The HPAI persisted in layer feces up to 96 hours** and up to 48 hours in broiler and turkey feces. The LPAI persisted up to 48 hours in layer and broiler feces and up to 12 hours in turkey feces. A second round of testing confirmed the results.

“**The behavior of the highly pathogenic and low pathogenic virus differed significantly.** This makes sense when you think about the high mortality among layers during last year’s outbreak – the HPAI was comfortable in the poultry environment” says Gallardo.

The project also explored farmers’ use of disinfectant footbaths. **Researchers discovered there was no clear protocol regarding footbath use,** so Gallardo’s team created three different footbaths using three common disinfectants.

They then impregnated the boots with bedding material spiked with HPAI and LPAI. At 0, 24, 48 and 72 hours post footbath preparation, the boots were treated and subsequently the bedding material from the boot sole sampled.

Gallardo says the result may have some degree of uncertainty because “there is a high chance the result was affected by the way in which we collected the sample, since some bleach granules might have been put in solution in the sample tube, killing and destroying the viral particles.”

Gallardo went on to say that **the way in which footbaths are used likely makes a difference.** He recommended that farmers change footbaths regularly and scrub boots in addition to rinsing them.

“**Now that we know for how long and where the virus persists, we need to know why.** That’s our next step and our next proposal” says Gallardo.

The highly pathogenic virus is very persistent, remaining active significantly longer than the low pathogenic virus.

“IT’S HARD FOR YOUNG SCIENTISTS TO GET FUNDING. WE DON’T HAVE THE TRACK RECORD, BUT WE NEED THE OPPORTUNITY. THE EGG INDUSTRY CENTER PROVIDED ME THAT OPPORTUNITY.”



– **RODRIGO GALLARDO,** assistant professor of poultry medicine at the University of California–Davis

IDENTIFYING GENETIC BASIS FOR RESISTANCE TO AVIAN INFLUENZA IN COMMERCIAL EGG LAYER CHICKENS

Jack Dekkers, Distinguished Professor of animal science at Iowa State University

Although last year's avian influenza outbreak proved HPAI H5N2 to be highly infectious, in many flocks a small number of birds survived for four weeks in infected chicken houses. Janet Fulton, molecular geneticist at Hy-Line International, along with scientists from Iowa State University, think these **birds may contain natural genetic variation that makes them resistant to HPAI** – and they've set out to find it.

Using blood samples from birds that survived HPAI at two Midwest egg production facilities and from non-infected controls, the team of scientists aims to discover genetic differences between the survivor and control birds. The DNA of both groups were compared at 600,000 genetic locations across the genome.

"We found differences in several genetic regions between survivor and control birds, but we are unsure at this time if these differences have a significant impact on survival," said Fulton.

The next step is to sequence the regions in order to glean more details.

"Understanding the genetic pathways that may influence the birds' ability to survive a highly pathogenic virus such as AI could ultimately lead to better prevention and treatment," said Fulton.

Awarding financial support to research teams across the U.S., the center also contributed its expertise through hands-on investigations. The list that follows describes AIV projects supported by the center's grant program as well as projects in which Hongwei Xin, the center's director, was directly involved.

ROLE OF TERRESTRIAL WILD BIRDS, RODENTS, AND INSECTS IN SPREADING AVIAN INFLUENZA VIRUS TO COMMERCIAL LAYER OPERATIONS

Kyoung-Jin Yoon, professor of veterinary diagnostic and production animal medicine at Iowa State University

EVALUATION OF ALTERNATIVE ENVIRONMENTAL SAMPLES MATRICES FOR AVIAN INFLUENZA VIRUS SURVEILLANCE AND STABILITY IN COMMERCIAL POULTRY FACILITIES

Phillip Gauger, associate professor of veterinary diagnostic and production animal medicine at Iowa State University

EVALUATION OF FEEDSTUFFS FOR THE PRESENCE OF AVIAN INFLUENZA VIRUS (AIV) COLLECTED FROM FEED MILLS AND POULTRY FARMS AND THEIR ROLE IN SPREADING OF AIV

Yuko Sato, assistant professor of veterinary diagnostic and production animal medicine at Iowa State University

ASSESSMENT OF THE RELATIONSHIP BETWEEN HPAI OUTBREAKS AND WEATHER PATTERN THROUGH METEOROLOGICAL MODELING

AIR AND ENVIRONMENTAL SAMPLING OF INFECTED POULTRY (LAYER AND TURKEY) BARN TO DETERMINE DUST AS A POSSIBLE CARRIER OF THE VIRUS

FILTRATION OF VENTILATION AIR TO REDUCE THE RISK OF AIV AIRBORNE TRANSMISSION

MODELING OF VENTILATION SHUTDOWN (VSD) TO HELP STOP VIRUS TRANSMISSION

HEAT TREATMENT OF EGG FLATS TO ENSURE BIOSECURITY

Hongwei Xin, director of the Egg Industry Center, C.F. Curtiss Distinguished Professor and Iowa Egg Council Endowed Professor at Iowa State University

INFORMING CRITICAL MARKET DECISIONS

MARO IBARBURU, ASSOCIATE SCIENTIST AND BUSINESS ANALYST AT THE CENTER, KNOWS WHAT IT'S LIKE TO REPEATEDLY TRY TO HIT A MOVING TARGET. A FOCUS OF HIS JOB IS TO ACCURATELY PROJECT U.S. FLOCK TRENDS, EGG PRICES AND COSTS.



MARO IBARBURU

“PROJECTING THE PRICE OF EGGS IS DIFFICULT. WEATHER, CONSUMER DEMAND AND OTHER FLUCTUATIONS ALL HAVE AN EFFECT,” SAID IBARBURU.

Add to these considerations the movement toward cage-free production and last year's avian influenza outbreak, and Ibarburu's work is now more challenging than ever.

“The spring and early summer were characterized by a lot of uncertainty and volatility surrounding the avian influenza outbreak. Egg prices went from record highs to 10-year lows,” said Ibarburu. “This not only makes recovery hard for those who were affected by AI but also hurts producers trying to invest in the cage-free movement.”

Already a trusted resource among the 1225 subscribers to his monthly market reports, **Ibarburu and others from the center devoted much of their time this year to helping industry and the public understand the economic impact of the avian influenza outbreak and to quantify the movement toward cage-free production.** The center produced special reports related to both issues, provided information to high-level economic discussions and fielded requests from media outlets across the country.

“The purpose of the special reports and presentations we do is to distribute factual information. This benefits everyone, from industry to consumers,” said Ibarburu.

The center is currently working on a follow-up report about the economic impact of the avian influenza outbreak that will be released after the industry's recovery is complete. The reporting strategy for helping constituents understand the cage-free movement is more long term, as the shift will affect industry during the 10-year transition window and the marketplace beyond that.

“There are still so many unknowns about the cage-free transition,” said Ibarburu.

“ONE THING I DO KNOW: THE EGG INDUSTRY CENTER WILL WORK HARD TO PROVIDE THE ANSWERS THAT THE INDUSTRY NEEDS TO MAKE THE TRANSITION AS PAINLESS AS POSSIBLE.”

FACILITATING LEARNING

KNOWN FOR ITS HIGH CALIBER PRESENTATIONS, INSIGHTFUL AND RELEVANT SUBJECT MATTER AND HANDS-ON LEARNING OPPORTUNITIES, THE EGG INDUSTRY ISSUES FORUM HAS BECOME A HIGHLY ANTICIPATED ANNUAL EVENT.

“The forum is always one of my favorite industry events to attend,” remarked one of this year’s Forum participants.

Held in Chicago, April 20-21, the **2016 Egg Industry Issues Forum** attracted more than **200 egg farmers and allied representatives** – more than double the number of attendees since the Forum was last held in Chicago in 2010.

“People come expecting good programming, and we aim to deliver,” said Lesa Vold, communications specialist for the center. **“It’s rewarding to know that so many producers and allied industry partners benefit from our efforts.”**

Addressing the most urgent industry issues, 2016 forum discussions focused on last year’s avian influenza crisis and the move toward cage-free production. Several presenters shared lessons learned, potential best practices and outstanding concerns related to both challenges. While all presentations were well received, one of the most popular was **“European Lessons Learned from Moving an Industry to Cage-free,”** given by **Rudolf Preisinger**, managing director and chief geneticist at Lohmann Tierzucht GmbH and chief technical officer for EW Group.

Forum participants were eager to learn from Europe’s experience as they prepare for the U.S. movement toward cage-free production by 2025. **Preisinger didn’t disappoint.**



RUDOLPH PREISINGER

Describing European trends in animal welfare issues including no beak treatments within five years and the increasing demand for cage-free production, he also detailed targets for layer breeding and several performance measurements. **A key difference he noted for cage-free layers:** their need for 10 to 15 percent more energy in traditional environments.

Preisinger also shared a trend among European retailers of using animal welfare to distinguish themselves in the market.

Other presentations included the Don Bell Memorial Lecture, in which Brett Stuart, founding partner of Global AgriTrends, provided insight on the global protein outlook. Participants also heard from Carlos Saviani, vice president of World Wildlife Fund Food Team, who noted the paradox between efforts promoting sustainability improvements related to food production and waste and the likelihood that cage-free egg production will result in a higher carbon footprint.

“The goal of the forum is to provide participants with information about current and emerging issues and provide them with information they need to make strategic decisions,” said Vold. **“We’re able to achieve that goal through the participation of our advisory board, which includes producer and academics. Where these two groups intersect is where you have a win.”**

SAVE THE DATE!
2017 Egg Industry Issues Forum
April 19–20th, Columbus, OH

AGRI-TOURISM IN ACTION

Early arrivers to the forum had the opportunity to tour Fair Oaks Farms in Oaks, Indiana. Described by The Indianapolis Star as “the nation’s largest agri-tourism attraction,” the vast operation includes commercial-scale dairy and pork farms as well as a crop facility and seasonal cage-free hen barn.

While there, forum participants heard from Fair Oaks staff who discussed their commitment to teaching the public about agriculture and to eco-friendly choices such as running the facility on energy created from biological waste.

“The farm tour connected for me the possibilities of how to tell our story,” said Bruce Dooyema, logistics coordinator at Center Fresh Farms. **“Most egg farmers I know are proud of their farms; we just need to figure out a new way to display that so the whole industry can benefit.”**



JACOB DEVRIES
USDA-APHIS veterinary medical officer for the state of Iowa



TRAVIS SCHAAL
Internal technical services manager for Hy-Line International

HANDS-ON LEARNING OPPORTUNITIES EXPAND

THIS YEAR’S POST-FORUM EVENTS EXPANDED FROM ONE TO TWO INTERACTIVE WORKSHOPS.

“Best Practices for Market Position Management,” facilitated by Micheal Shawver, vice president of new business development for Commodity and Ingredient Hedging, explored the dynamics of making strategic adjustments over time to manage price volatility and increase flexibility in pricing decisions. Through case study review and interactive simulations, participants gained ideas for improving forward profitability and improved their risk-management skills.

“Best Management Practices for Biosecurity” was co-facilitated by Travis Schaal, internal technical services manager for Hy-Line International, and Jacob DeVries, USDA-APHIS veterinary medical officer for the state of Iowa. Schaal and DeVries led an in-depth discussion on practical approaches to implementing and maintaining site-specific biosecurity programs. Central to the discussion were long-term investments and program sustainability. Following the discussion, participants had the option to meet one-on-one with the presenters to discuss farm specific issues.

“Overall, I appreciated the group’s interaction and questions based on real-world observations and application of biosecurity principles such as staff training, setting good examples and working with what’s already in place,” said Schaal. “The one-on-one meetings showed that folks are taking risk management very seriously.”

EGG INDUSTRY CENTER ADVISORY BOARD

COMPRISED OF LEADERS FROM INDUSTRY AND ACADEMIA, THE EGG INDUSTRY CENTER ADVISORY BOARD GUIDES THE STRATEGIC DECISIONS THAT ENABLE THE CENTER TO MEET INDUSTRY'S IMMEDIATE NEEDS WHILE ALSO WORKING TO ENSURE ITS FUTURE. MEMBERS OF THIS DEDICATED GROUP VOLUNTEER THEIR VALUABLE TIME, TALENT AND EXPERTISE.

ADVISORY BOARD MEMBERS



DON BEERMAN



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BETH SCHNELL



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WENDY WINTERSTEEN

EX-OFFICIO MEMBERS



ANGELA LAURY-SHAW



RUTH MACDONALD



BILL NORTHEY



KEVIN STILES



HONGWEI XIN

PLEASE WELCOME

ROGER PELISSERO
First Vice Chair,
Egg Farmers of Canada

KEVIN STILES
Executive Director,
Iowa Egg Council and
Iowa Poultry Association

THANK YOU TIM

Tim Lambert, CEO of Egg Farmers of Canada and vice-chair of the International Egg Commission, has stepped down from the board after several years of active service in which he spearheaded many successful initiatives. Most recently, Lambert led the formation of the center's partnership with the International Egg Commission. Lambert plans to devote more energy to Heart for Africa, a nonprofit organization working to improve the lives of orphaned and vulnerable children in Swaziland. Best wishes, Tim, and thank you.



TIM LAMBERT



2016 EIC IMPACT REPORT

EGG INDUSTRY CENTER ENDOWMENT FUNDS ARE MANAGED BY THE IOWA STATE UNIVERSITY FOUNDATION. FOR MORE INFORMATION, VISIT www.foundation.iastate.edu OR CALL 515.294.3303.

ADVANCING THE EGG INDUSTRY

While the U.S. egg industry faces significant challenges and widespread change, one thing remains consistent:

THE DEEP COMMITMENT OF THE EGG INDUSTRY CENTER TO ADVANCE A THRIVING INDUSTRY THROUGH RESEARCH, DISSEMINATION OF SCIENCE-BASED INFORMATION AND EDUCATION.

Thanks to the support of donors, partners and friends, the Egg Industry Center endowment grew significantly in 2016, enabling the center to magnify its impact toward advancing a sustainable egg supply.

To learn how you can enhance the work of the Egg Industry Center and promote a vital and resilient industry, contact the center today!

www.eggindustrycenter.org



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