

NEWS & VIEWS

USPOULTRY[®]

U.S. POULTRY & EGG ASSOCIATION

Summer 2021

Hinton Elected for Second Term as USPOULTRY Chairman; New Board Members Announced

Animal Agriculture and First Responder Groups Announce Video to Assist Farmers with Emergency Planning

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The All Feather Association progressively serving poultry and egg members through research, education, communications and technical services.

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NEWS & VIEWS

Summer 2021

NEWS & VIEWS is produced quarterly by the U.S. Poultry & Egg Association (USPOULTRY), the world's largest and most active poultry organization. USPOULTRY represents the entire industry as an "All Feather" Association. USPOULTRY is a nonprofit organization which represents its poultry and egg members through research, education, communication and technical assistance. Membership includes producers and processors of broilers, turkeys, ducks, eggs and breeding stock, as well as allied companies. Formed in 1947, the Association has member companies nationwide and affiliations in 28 states. USPOULTRY also sponsors the International Poultry Expo, part of the International Production & Processing Expo (IPPE).

Send Comments to: **News & Views**
U.S. Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303
newsandviews@uspoultry.org

New Beginnings

The phrase “new beginnings” may become the moniker for the next several months as “pivot” and “virtual” were for the last 15 months, so much so that most of us grew tired of hearing the terms! But “new beginnings” is the best description of where we are as U.S. Poultry & Egg Association, for the following reasons.

- We just completed expansion and renovation of our office. USPOULTRY purchased its office in 1991, a 12,000 sq. ft. building that sat on about five acres. In 2018, USPOULTRY and the USA Poultry & Egg Export Council (USAPEEC) formed a partnership, called The Coop Group, which began an expansion project to renovate and expand the original building to 25,000 sq. ft. to allow our organizations to share common infrastructure. While construction during a pandemic proved a challenge, we moved into the new offices in May. It's been refreshing and rejuvenating to come together again in this wonderful new facility.
- After months of dealing with the challenges and adverse consequences of not hosting IPPE 2021 in Atlanta in January, we opened booth sales for IPPE 2022 on May 1 to strong exhibitor enthusiasm, with all looking forward to face-to-face networking in January.
- Similarly, our hotel block for our Financial Management Seminar, our first live event in almost a year, sold out weeks before the late June event. We are very anxious to host this seminar in Amelia Island, Florida, June 28-30, 2021.

We are indeed grateful for the “new beginnings” unfolding before us!

John Starkey, PE
President
jstarkey@uspoultry.org



John Starkey, PE
President
USPOULTRY



IPPE Recognized as One of Trade Show Executives' Gold 100 and Fastest 50 Growing Trade Shows by Net Square Feet

The International Production & Processing Expo (IPPE) is pleased to announce its recognition by Trade Show Executive on their Gold 100 shows, ranked by net square feet of exhibit space for 2019. IPPE came in at #21 on the listing, up from #31 in 2018.

Trade Show Executive also recognized IPPE as part of their Fastest 50, ranked by percentage of growth in net square feet, for which IPPE came in at #26. IPPE is sponsored by the U.S. Poultry & Egg Association (USPOULTRY), American Feed Industry Association and the North American Meat Institute.

"IPPE's recognition by Trade Show Executive is wonderful news, and we are honored to

be acknowledged for IPPE's growth. This recognition is indicative of the synergies gained from our combined efforts and even more so from the commitment of our loyal exhibitors, attendees and members from around the world. We are excited about the upcoming 2022 IPPE and are looking forward to an in-person trade show," said show organizers.

The 2022 IPPE will take place Tuesday through Thursday, Jan. 25 – 27, at the Georgia World Congress Center in Atlanta. Show updates and exhibitor and attendee information are available at ippexpo.org.



Hinton Elected for Second Term as USPOULTRY Chairman; New Board Members Announced



Greg Hinton

Greg Hinton, Rose Acre Farms, Seymour, Indiana, was elected for a second term as chairman of the board of directors of USPOULTRY during a recent board of directors meeting, held in Atlanta. Due to the pandemic, the board elected to renominate the executive committee to a second term.

A native of Indiana, Hinton attended Indiana University and Purdue University. He has served the poultry industry in various capacities on boards and committees, including the Indiana State Egg Board, USA Poultry & Egg Export Council, International Egg Commission, United Egg Producers, Indiana Farm Bureau and the American Farm Bureau. Hinton is vice president of sales and serves on the Executive Committee and Long-Range Planning Committee for Rose Acre Farms. He has been with the company for more than 40 years.

Vice Chairman

Mike Levengood, Perdue Farms, Salisbury, Maryland, is vice chairman. Levengood is a graduate of Penn State University where he obtained a BBA in Agriculture Business Management. He has served the poultry industry in various capacities, including past chairman of the National Chicken Council Growout Committee. He joined Perdue in 1984, where he has held a variety of senior level positions. He is vice president, Chief Animal Care Officer and Farmer Relationship Advocate for Perdue Farms.

Treasurer

Mikell Fries, Claxton Poultry, Claxton, Georgia, is treasurer. Fries is a graduate of Georgia Southern University where he obtained a degree in business management. Before assuming Claxton's head operational role, he spent several years in senior positions overseeing sales and marketing. He has served the poultry industry in various capacities, including serving on the board of directors for the Georgia Poultry Federation and Norman W. Fries, Inc. He is president for Claxton Poultry.

Secretary

Jarod Morrison, Farbest Foods, Huntingburg, Indiana, is secretary. Morrison received his BS in Finance from the University of Southern Indiana and his MBA from Purdue University. Before joining Farbest Foods, he was senior director of finance and accounting with Masterbrand Cabinets and finance manager with GE Plastics. He is chief financial officer for Farbest Foods, where he leads all aspects of finance, accounting and IT for Farbest Foods, Farbest Farms and JFS Milling.

Immediate Past Chairman

John Prestage, Prestage Farms, Clinton, North Carolina, is immediate past chairman. Prestage graduated with a BS in Animal Science from North Carolina State University. He has served the poultry industry in various capacities on boards and committees, including the North Carolina Poultry Federation and the National Turkey Federation. Active in his community, he serves on local school and college foundation boards. He is senior vice president and has been with Prestage Farms since the company's inception in 1983.

New Board Members

Newly elected to the USPOULTRY board of directors are Dr. Marc de Beer, president, Aviagen North America; Bill Griffith, chief operating officer, Peco Foods; Mandy Klopp, head of operations for Fresh Food Service, Pilgrim's; and Joel Sappenfield, president, Simmons Prepared Foods.

"I look forward to the leadership and guidance these officers and new board members will provide our organization," remarked John Starkey, president of USPOULTRY.



Dr. Marc de Beer



Bill Griffith



Mindy Klopp



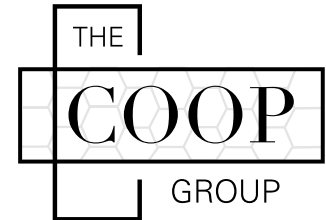
Joel Sappenfield

New USPOULTRY / USAPEEC Office Almost Complete!

The new offices for USPOULTRY and the USA Poultry & Egg Export Council (USAPEEC) are almost complete, with USPOULTRY staff returning to their new office space on Monday, May 24.

The expansion created an additional 12,000 square feet of space owned by "The Coop

Group, LLC," a partnership of USPOULTRY and USAPEEC. The board of directors for USPOULTRY and USAPEEC approved the expansion in 2019.



Bredwell Selected for Additional Two-Year Term on Chesapeake Bay TMDL Agricultural Workgroup



Paul Bredwell

USPOULTRY Executive Vice President of Regulatory Programs Paul Bredwell was recently selected by the Chesapeake Bay partnership signatories to serve an additional two-year term as an At-large Member of the Agricultural Workgroup for the Chesapeake Bay Total Maximum Daily Load (TMDL).

Encompassing 64,000 square miles, the Chesapeake Bay Watershed, home to the largest estuary in the United States, lies within six states and has a population of roughly 18 million. For decades, states within the Watershed have struggled to control the runoff of nitrogen, phosphorus and sediment into the surface waters that eventually flow into the Chesapeake Bay. This led to a decline in the Bay's health and initiated a 2009 presidential Executive Order compelling the Environmental Protection Agency (EPA) to assume the lead role in establishing a six-state TMDL for nitrogen, phosphorus and sediment flowing into the Chesapeake Bay.

The effort to achieve the necessary reductions are taking place through a collaborative partnership that engage the many stakeholders that live and operate within the Bay Watershed. The Agricultural Workgroup's charge is 'to provide expertise and leadership on development and implementation of policies, programs and research to reduce pollutant

loads delivered from agricultural lands and animal operations to upstream waters and the Chesapeake Bay.' While the geographical features of the Chesapeake Bay are diverse and contributions of nitrogen, phosphorus and sediment originate from many different source categories, EPA and the state environmental agencies are relying heavily on the agricultural sector to implement pollution control measures to mitigate not only their own contributions but those of the other source categories.

Bredwell remarked, "Given the poultry and egg industry's footprint within the Chesapeake Bay Watershed, we feel it is essential to participate in the process to accurately evaluate our contributions and identify ways to reduce nutrient loads to the Bay. Our industry is rooted in research and science, and it makes perfect sense to collaborate with the Chesapeake Bay partnership to enhance surface water quality within the Watershed and restore the health of the Chesapeake Bay."

IAEE Recognizes Venable as International Volunteer



Gwen Venable

The International Association of Exhibitions and Events (IAEE) recently honored USPOULTRY Vice President of Communications Gwen Venable with an International Volunteer badge of recognition for volunteer time, commitment and support provided to IAEE, the IAEE SE Chapter and the industry throughout the year.

Remarked Venable, "I am deeply appreciative and thankful of the recognition, which would not have been possible without my involvement in the IAEE SE Chapter. For several years I have served on the SE Chapter board of directors, with this year serving as chair. I have thoroughly enjoyed all aspects of the wonderful group of people that I

work with on a regular basis. The knowledge and friendship that I have gained have been invaluable to me."



USPOULTRY Accepting Applications for 2021 Clean Water Awards

USPOULTRY is accepting applications for the 2021 Clean Water Awards. The awards recognize outstanding performance of wastewater treatment plants that operate at poultry and egg processing facilities. Winners will be announced at USPOULTRY's 2021 Environmental Management Seminar to be held Sept. 16 – 17, at the Hilton Sandestin Beach Golf Resort & Spa in Destin, Florida. As USPOULTRY is currently planning to move forward with the seminar, the health and safety of everyone who attends is a top priority. Guidelines from the Centers for Disease Control and Prevention (CDC) and state and local governments regarding COVID-19 will be followed, and regular updates will be provided to all stakeholders if the situation warrants.

“Poultry companies are unwavering in their responsibility to environmental stewardship and perform an outstanding job operating their wastewater treatment facilities. Practically all the water used in poultry and egg processing is returned to the environment in

excellent condition, continually exceeding the standards set in discharge permits. USPOULTRY is pleased to sponsor this annual award program that highlights these exceptional facilities,” said Greg Hinton, Rose Acre Farms, and USPOULTRY chairman.

Awards are presented in two categories – full treatment and pretreatment. Full treatment facilities are those facilities that fully treat their wastewater prior to discharge into a receiving stream or a land application system. Pretreatment facilities are those facilities that discharge pretreated effluent to publicly owned wastewater treatment facilities for further treatment. Any USPOULTRY member company is eligible to submit three nominees in each category. Facilities that have previously won the award may not be re-nominated for five years. The deadline for submitting applications is June 25.

An evaluation committee will review the applications and select semi-finalist facilities

in both categories. Award recipients will be selected after the evaluation committee completes a site visit where each semifinalist will have an opportunity to showcase their facility.

Award recipients will receive a trophy, be profiled on the USPOULTRY website and receive assistance from USPOULTRY in publicizing the award on a local, regional and national level.

The winners of the 2020 Clean Water Awards were Tyson Foods in New Holland, Pennsylvania, for full treatment, and Tyson Foods in Robards, Kentucky, for pretreatment. Simmons Foods in Southwest City, Missouri, received honorable mention in the full treatment category. Tyson Foods in Berryville, Arkansas, received honorable mention in the pretreatment category.

Go to uspoultry.org/environment/ for an application form.



2020 Clean Water Award Full Treatment Winner: John Farrier, wastewater supervisor, and Julie Bard Ziegler, complex environmental manager with Tyson Foods in New Holland, Pennsylvania



2020 Clean Water Award Pretreatment Winner: Alfonso Arteaga, wastewater treatment plant supervisor; Sean Ogungbenle, complex environmental manager; and Mark Badertscher, rendering plant manager, with Tyson Foods in Robards, Kentucky

Animal Agriculture and First Responder Groups Announce Video to Assist Farmers with Emergency Planning

USPOULTRY, along with the National Cattlemen's Beef Association, National Milk Producers Federation, National Pork Producers Council, United Egg Producers and the National Association of SARA Title III Program Officials (NASTTPO), released the first in a series of videos that assists farmers and ranchers with preparing an emergency action plan for their operation. In addition to identifying essential aspects of an emergency action plan, the video emphasizes the advantages of engaging with local emergency planning and response professionals.

By coordinating and cooperating, emergency responders and farmers and ranchers reap mutual benefits. Emergency response personnel can get a better understanding of the potential hazards they may face when responding to an on-farm emergency, while farmers and ranchers

can gain insight into the accident response capabilities available within their community.

Tim Gablehouse, president of NASTTPO, remarked, "This video is a good start into enhancing the safety of those emergency response personnel unfamiliar with farming and ranching operations. Likewise, it can help to close a gap between emergency planning and response professionals and the public. We look forward to collaborating with our colleagues in agriculture to further broaden this educational tool and improve safety for responders, farmers and the public."

"Safety on the farm is always a priority. The partnership between first responders and local farmers and ranchers is critically important, as is assuring effective coordination during an on-

farm emergency," said John Starkey, president of USPOULTRY, speaking on behalf of all the national agriculture organizations involved in the video's development. "The public can rest easy knowing that farmers and ranchers take seriously their responsibility to keep their operations safe for themselves and their neighbors. Helping public safety personnel understand farm operations and providing information to help them respond swiftly and effectively is essential in a time of crisis. Emergency planning protects the community, farmworkers, animals and the livelihoods of U.S. farmers and ranchers."

The video can be viewed on the USPOULTRY YouTube channel at youtube.com/USPOULTRY.



COORDINATION & COLLABORATION

Between Farms, Local Emergency Planning Committees
and Emergency Responders



Research Results

Funded by USPOULTRY and the USPOULTRY Foundation

USPOULTRY and the USPOULTRY Foundation announce the completion of a funded research project. The project is part of the Association's extensive research program encompassing all phases of poultry and egg production and processing. A summary of the completed project is provided below. The complete report, along with information on other Association research, may be obtained by going to USPOULTRY's website, uspoultry.org.

Researchers Examine the Role of Protease, Crude Protein and Amino Acid Levels on Laying Hen Performance and Egg Quality

Project #716: Effect of Varying Protein/ Amino Acid Level of Diets with or without Protease to Reduce Feed Cost, Improve Egg Quality and Egg Solids in Post-Peak and Late-Lay

(Dr. Pratima Adhikari, Department of Poultry Science, Mississippi State University, MS State, Mississippi)

While the benefits of phytases in poultry nutrition are widely recognized, the use of proteases in commercial formulations still require greater acceptance. Proteases have been used as a part of multi-enzymes until recently, when they have been evaluated alone. There is a concern about egg size getting too big if protein and amino acids (AAs) in the diet are too high, but there is also a concern in the reduction of egg size and egg production if AAs are reduced by providing matrix value to the protease during feed formulation. There is a lack of information for industry nutritionists to use protease in order to improve production as well as to save feed cost. The objective of this project was to determine the role of protease in egg production, egg quality and reduced feed cost by improving AA utilization in post-peak and late-lay of egg production.

A long-term study was conducted to investigate the feeding effect of protease along with various levels of crude protein (CP) and AAs in layer feed. The study was divided into two phases, 30-50 weeks of age and 50-70 weeks of age. The effect of supplementing exogenous protease enzyme on egg size, egg solids, performance and digestibility of nutrients in different phases of laying hens

were determined. Hens were fed a corn-soybean meal-based layer feed in all mash form. The study was a complete randomized design with 2 x 4 factorial arrangement of protease (yes and no) and AA levels (100, 95, 90 and 85% of breeder recommendation).

The effect of the protease was beneficial in understanding the AA digestibility in both the early and late-lay phases. In the 30-50 weeks study, the interaction of AA levels and protease was observed for the hen day egg production. Researchers did not observe any interaction of protease and CP/AA on economic return. The lowest level of AA diets hindered laying performance and economic return. In the 50-70 weeks study, there were significant AA levels and protease interactions for egg production, percent yolk, and coefficient of apparent ileal digestibility for CP and several other AAs. However, no interactions or effects were found for feed intake, specific gravity, shell thickness, percent albumen, total solids and other components. This study did not show an effect of protease in reducing the egg size.

The research was made possible in part by an endowing Foundation gift from Cal-Maine Foods.



Dr. Roselina Angel Awarded the PSA Distinguished Poultry Industry Career Award, Sponsored by USPOULTRY



Dr. Roselina Angel

Dr. Roselina Angel, professor of monogastric nutrition at the University of Maryland, was recognized with the 2021 Poultry Science Association Distinguished Poultry Industry Career Award, sponsored by USPOULTRY. The Distinguished Poultry Industry Career Award recognizes distinctive, outstanding contributions by an industry leader. In addition to sponsoring the award, USPOULTRY also makes an annual contribution to the

Poultry Science Association Foundation on behalf of the award recipient.

“USPOULTRY is pleased to honor industry leaders exemplified by Dr. Roselina Angel. She is widely recognized for her many years of environmental sustainability work and contribution to the poultry industry,” said John Starkey, president of USPOULTRY.

Dr. Roselina Angel received her Ph.D. in Poultry Nutrition from Iowa State University. She worked as a research manager at Purina Mills for nine years, after which she joined the University of Maryland Department of Animal and Avian Sciences. She served as co-editor of the nutrition section of the Journal of Applied Poultry Research from 2009 to 2011, four 2-year terms as an associate editor for the Journal of Poultry Science, and as a member of the Poultry Science Association’s board of directors. She has been a member of the program committee for the Poultry Science’s Informal Nutrition Conference since 1998 and now co-chairs this conference. Dr. Angel has been a panel member for USDA’s National Research Initiative competitive grants program and an ad hoc reviewer for USDA-NRI, the Binational Agricultural Research and Development Fund, and other funding agencies. Dr. Angel has published seven book chapters, 170 articles in refereed journals and more than 250 abstracts. Since 2000, she has given more than 300 invited presentations both in the U.S. as well as internationally. In 2002, she was named to the Committee on Animal Nutrition (CAN), at that time the only standing committee of the National Research Council of the National Academy of Sciences. Dr. Angel has been the recipient of several awards including the National Chicken Council Broiler Research Award, the American Feed Industry Association Poultry Nutrition Award and the Merrill Scholar Faculty Advisor Award. She was named a Fellow of the Poultry Science Association in 2016.

Dr. Angel’s recent focus has also been on improvement in phosphorus nutrition through optimizing calcium use as well as in optimizing tools to maximize economic nutrient conversion efficiency. Her research has had a direct measurable impact on water and air quality and the environmental and economic sustainability of the poultry industry.

USPOULTRY Honors Michael Robach for Service on the Foundation Research Advisory Committee



Michael Robach

The USPOULTRY Foundation recognizes Michael Robach for 30 years of dedicated service on the Foundation Research Advisory Committee (FRAC). Robach has more than 40 years of experience in the food industry, much of which was obtained while serving as vice president, Corporate Food Safety, Quality and Regulatory for Cargill.

Robach began serving on the FRAC in 1991 as a poultry subject matter expert reviewing food safety research proposals, making him the longest serving Committee member. He served as the chairman of the FRAC for several years during his tenure. Dr. John Glisson, USPOULTRY vice president of research from 2011-2019, shared, "Mike's vast knowledge of the research in food safety and quality assurance, coupled with decades of practical experience, provided a tremendous continuity of excellent input to the USPOULTRY research programs. I suspect that few people are aware of the decades of selfless service Mike provided to the program. He will be greatly missed."

Moreover, Robach was awarded USPOULTRY's 2019 Workhorse of the Year during the

International Poultry Expo, part of IPPE. This is the poultry industry's most prestigious honor and is awarded annually in recognition of dedicated service and valuable leadership given to the Association and poultry industry.

Remarked USPOULTRY President John Starkey, "Mike is and continues to be one of those individuals who, through his volunteerism, has had not only a tremendous impact on USPOULTRY and our Foundation, but the industry as a whole. We are most grateful to him for the time and dedication he gave to the Research Advisory Committee."

Dr. Charlie Beard, former director of the Southeast Poultry Research Laboratory and former vice president of research at USPOULTRY, recruited Robach to the FRAC in 1991. He added, "Mike was an outstanding member of the Research Advisory Committee, providing valuable input over many years. His record of service as a highly respected expert on food safety has provided USPOULTRY with the kind of dependable advice and guidance that has helped the Committee achieve a continuing record of providing research funding in food safety. He leaves the Committee with great appreciation from USPOULTRY for the dedication and expertise that he provided."

Robach is a past chairman of the board of directors of the Global Food Safety Initiative (GFSI), past president for Safe Supply of Affordable Food Everywhere (SSAFE) and a past member of the Scientific and Regulatory Affairs Council Executive Committee for the Grocery Manufacturers Association. He is also a past member of the North American Meat Institute, the National Turkey Federation, the International Association of Food Protection, the Institute of Food Technologists and the American Society for Microbiology. Robach has worked with the World Organization of Animal Health (OIE) and the Food and Agriculture Organization (FAO) on harmonized animal health and food safety standards. He has also

worked closely with the U.S. Department of Agriculture (USDA) and Food and Drug Administration (FDA) regarding food safety policy, Hazard Analysis Critical Control Point (HACCP) and regulatory reform based on science. From 1995 through 2000, Robach was a member of the National Advisory Committee for Microbiological Criteria in Foods.

Currently, he is CEO at the Robach Group and remains active within the poultry industry and the Continental Grain Company. Dr. Angie Siemens, vice president, Corporate Food Safety, Quality and Regulatory for Cargill, will assume Robach's role on the FRAC.

USPOULTRY Director of Research Dr. Denise Heard stated, "Mike has been an integral part of our Foundation Research Advisory Committee. His many years of experience in poultry production and long service to USPOULTRY research programs have been a labor of love. I am excited to welcome Dr. Siemens to the Committee and look forward to working with her for many years to come!"

Dr. Siemens is responsible for food safety issues and quality management systems and processes in approximately 53 beef, turkey, egg, case-ready and processing facilities in North America. She also oversees the food safety issues of meat co-packers and meat and ingredient suppliers. She received a PhD in Meat Science and M.S. in Animal Science from the University of Missouri, Columbia, and a B.S. in Animal Science from Purdue University, West Lafayette, Indiana.



USPOULTRY and Foundation Approve \$320,000 in New Research Grants Through the Comprehensive Research Program

USPOULTRY and the USPOULTRY Foundation have approved approximately \$320,000 for five new research grants at five institutions through the comprehensive research program. The research funding was approved by the boards of directors of both organizations, based on recommendations from the Foundation Research Advisory Committee. The committee evaluates research proposals to determine their value to the industry and then makes recommendations to the boards for funding. Committee members are professional specialists from different segments of the poultry and egg industry who represent a variety of disciplines.

The Association's comprehensive research program dates to the early 1960s when funds were first approved for poultry disease research. It gradually grew into an all-inclusive program incorporating all phases of poultry and egg production and processing. Since the inception of the research program, USPOULTRY has reinvested more than \$33 million dollars into the industry in the form of research grants. More than 50 universities and federal and state facilities have received grants over the years.

"Research continues to be an important aspect of USPOULTRY's and the Foundation's service to the poultry industry. The Foundation

Research Advisory Committee is the core of the research program with committee members volunteering numerous hours reviewing and evaluating research proposals before making recommendations for funding. We sincerely appreciate and value their time and commitment," said Greg Hinton, Rose Acre Farms, and USPOULTRY chairman.

The research grants for each institution include:

Utilizing Dry Hydrogen Peroxide as a Replacement for Formaldehyde in Commercial Poultry Hatcheries

University of Georgia (research grant made possible in part by an endowing Foundation gift from Fieldale Farms Corporation)

Identification of Early Indicators of Necrotic Enteritis Disease Development in Broiler Chickens

North Carolina State University (research grant made possible in part by an endowing Foundation gift from Case Farms)

How Does Laying Hens' Visual Perception Affect Resource Usage in Cage-Free Housing?

Purdue University (research grant made possible in part by an endowing Foundation gift from MPS Egg Farms)

Realistic Multi-Species Challenge Model to Evaluate Treatment Methods Able to Prevent Colonization of Pathogenic Bacteria in the Hatching Environment

University of Arkansas (research grant made possible in part by an endowing Foundation gift from George's Inc.)

Development of mRNA-Based Vaccines for Heterosubtypic Protection Against Infectious Bronchitis Viruses and Infectious Laryngotracheitis

USDA ARS SEA USNPRC (research grant made possible in part by an endowing Foundation gift from Sanderson Farms)



USPOULTRY Approves New Board Research Initiative Grant Focused on Evaluating Vaccination Against *Salmonella* Reading in Turkeys

USPOULTRY approved approximately \$60,000 in funding for a new research grant to evaluate strategies to reduce *Salmonella* Reading colonization in turkeys through the Board Research Initiative program. The topic and request for proposal were selected by the USPOULTRY board of directors. The Foundation Research Advisory Committee evaluated several research proposals and then recommended which proposal to fund to the board.

The research grant is as follows, and the research was made possible in part by donations to the USPOULTRY Foundation. The donations came from a wide range of poultry and egg companies, individuals and families to support the Foundation's mission of funding industry research and recruiting students into poultry careers.



Vaccination Against *Salmonella enterica* Serotype Reading: Evaluation of the Cross-Protective *Salmonella* BBS 866 Vaccine and the AviPro® Megan® Egg Vaccine at Reducing Outbreak-Associated *S. Reading* Colonization, Dissemination and Persistence in Turkeys

USDA ARS National Animal Disease Center (research grant made possible in part by an endowing Foundation gift from the Cooper Family Foundation)

S. Reading has been isolated from production turkeys in the U.S. for many years, but only in the past few years has *S. Reading* been associated with human foodborne illness from turkey products. The objective of this project is to evaluate the cross-protective BBS 866 *Salmonella* vaccine in reducing colonization, dissemination and persistence of recently emerged *S. Reading*. Further, the research will assess reduction of *S. Reading* in turkeys vaccinated with AviPro® Megan® Egg, a vaccine recommended for the prevention of *S. Typhimurium* colonization of the liver and spleen in turkeys.

"Mitigation strategies against *Salmonella* are challenging because many of the >2,600 *Salmonella* serotypes often establish an undetected, asymptomatic, commensal-state in food animals, including turkeys. Vaccination against one serotype may not provide protection against other serotypes; thus, our research team created a live, attenuated vaccine that stimulates cross-protective immunity against diverse *Salmonella* serotypes in various food animal species. We will evaluate the ARS-developed vaccine and a commercially available vaccine in our turkey challenge model for reduction of the *S. Reading* outbreak isolate. Our goal is to provide the poultry industry with reliable data for informed decision-making on targeted control strategies against the human foodborne pathogen *Salmonella*, including *S. Reading* in turkeys," said Principal Investigator Dr. Shawn Bearson. Dr. Bearson

is a microbiologist for the United States Department of Agriculture, Agricultural Research Services, National Animal Disease Center, Food Safety and Enteric Pathogens Research Unit in Ames, Iowa.

USPOULTRY Director of Research Dr. Denise Heard commented, "In addition to assessing the protection provided by the *Salmonella* vaccines against *S. Reading*, this study will also characterize the colonization potential and persistence of turkey-associated *S. Reading*, thereby providing valuable information on the virulence of the *Salmonella* outbreak-associated serovar that has alarmed turkey producers and disrupted turkey production."

"A greater understanding of *Salmonella Reading* will assist the turkey industry in mitigating the serotype and could potentially be helpful in reducing future evolved *Salmonella* serotypes," stated USPOULTRY President John Starkey.

The USPOULTRY Board Research Initiative was created by the boards of USPOULTRY and the USPOULTRY Foundation to address current issues facing the poultry industry. The USPOULTRY Board Research Initiative operates alongside the USPOULTRY comprehensive research program and augments the great success of the existing program by focusing additional resources toward defined areas of research.

USPOULTRY and its Foundation operate an extensive research program incorporating all phases of poultry and egg production and processing.



USPOULTRY Foundation Approves New Board Research Initiative Grant Addressing Clostridial Dermatitis in Poultry

The USPOULTRY Foundation approved approximately \$120,000 in funding for a new research grant addressing Clostridial dermatitis in poultry through the Board Research Initiative program. The topic and request for proposals were selected by the USPOULTRY Foundation board of directors. The Foundation Research Advisory Committee evaluated several research proposals and then recommended which project to fund to the board.

The research grant is as follows, and the research was made possible in part by donations to the USPOULTRY Foundation.

Development of a Probiotic-Based Recombinant Oral Vectored-Vaccine Against Clostridial Dermatitis in Turkeys
 North Carolina State University (research grant made possible in part by an endowing Foundation gift from Prestage Farms)



Clostridial dermatitis (CD), caused predominantly by *Clostridium septicum*, is an economically important emerging disease of turkeys characterized by necrotic dermatitis and sudden death. Control strategies, such as improved management, feeding probiotics and others, have been tried with variable success. This project will develop a vaccine that may be effective in immunizing turkeys against CD. In addition to inducing CD immunity in birds, this vaccine will possess probiotic properties to competitively exclude intestinal colonization by pathogenic Clostridia, thus enhancing overall gut health in poultry and yielding value-added means for poultry producers to grow poultry without relying on the use of on-farm antibiotics for CD control.

“The innovative nature of this study builds upon our current understanding of the important role played by probiotics in promoting gut health in poultry, when used as beneficial microbial supplements. Thus, the novel experimental approach will comprise of using certain well-characterized probiotic bacterial strains to clone and express *C. septicum* protective antigen(s) to develop an effective and viable vaccine against CD in turkeys,” said Principal Investigator Dr. Ravi Kulkarni, in the Department of Population Health and Pathobiology, College of Veterinary Medicine at North Carolina State University.

USPOULTRY Director of Research Dr. Denise Heard commented, “The disease pathogenesis of CD is poorly understood, mainly because of its complexity and multifactorial characteristics. The development of an effective oral probiotic-based CD vaccine will be of value to both the turkey and broiler sectors.”

“The USPOULTRY Foundation is pleased to support this project. Clostridial dermatitis is an important disease of both turkeys and broilers that often requires antibiotics to treat. With reduced use of antibiotics in the industry, it is important that we find alternative methods

to protect our flocks,” shared John Prestage, Prestage Farms, and USPOULTRY Foundation chairman.



USPOULTRY's Foundation Research Advisory Committee: *A Labor of Love*

A labor of love can be defined as “productive work performed without any material reward or compensation.” Members of the USPOULTRY Foundation Research Advisory Committee epitomize this expression through their hard work, diligence and tireless efforts reviewing hundreds of pre-proposals and full research proposals each year to ensure indispensable research is conducted to answer the crucial questions, concerns and issues facing the U.S. poultry industry.

Throughout its proud 58-year history of funding meaningful research for the poultry industry, the USPOULTRY comprehensive research program has relied on industry experts to guide the program. Since inception of the program in 1963, it has been structured so that the critical evaluation of grant proposals and recommendations for funding of proposals has been conducted by individuals from the poultry industry and not by USPOULTRY staff. Today the group of industry experts who fill this role is called the Foundation Research Advisory Committee (FRAC).

The FRAC conducts many of the critical functions of the USPOULTRY comprehensive research program. Twice a year, the FRAC reviews 150-200 pre-proposals received by the USPOULTRY comprehensive research program and selects which pre-proposals are invited to be submitted as full research proposals. When the full research proposals are received by USPOULTRY, the FRAC evaluates the proposals and makes recommendations to the USPOULTRY Board and the USPOULTRY Foundation Board concerning which proposals should be funded. All members of the FRAC hold prominent positions within the industry, yet find the time to meet face-to-face twice a year to conduct these critical proposal reviews.

USPOULTRY's second research program, called the Board Research Initiative, directs

additional funds toward specific research topics. Just as with the traditional USPOULTRY comprehensive research program, all of the evaluations of research proposals and recommendations for funding in the Board Research Initiative are conducted by the FRAC.

Other functions of the FRAC include selecting the priority research topics for the USPOULTRY comprehensive research program every two years as well as identifying the recipient of the Charles Beard Research Excellence Award. This award annually recognizes a researcher who has conducted outstanding research funded by the USPOULTRY comprehensive research program.

I cannot think of a harder working USPOULTRY committee. Its members put in many hours evaluating proposals and conducting other activities. The committee works very well together to select research proposals for funding that have a high likelihood of generating new information that will be helpful to the poultry industry. The members of the FRAC are all experts in their fields, and their collective backgrounds and experience cover all phases of poultry production, egg production and processing.

Over the past year, two FRAC members have retired from the Committee and two new members have joined. USPOULTRY recognized Dave Townsend, former head of Environmental Programs for Pilgrim's, and Mike Robach, former global vice president of Food Safety, Quality and Regulatory for Cargill, for their service on the Committee. Subsequently, we were pleased to welcome Jonathan Green, senior manager of Environmental Compliance & Sustainability at Wayne Farms, as well as Dr. Angie Siemens, vice president of Food Safety, Quality and Regulatory for Cargill, to the Committee.

USPOULTRY and the poultry industry are very grateful to the dedicated members of the FRAC. The great success of the USPOULTRY comprehensive research program and Board Research Initiative reflects the hard work of the

FRAC. The 2021 committee members deserve to be recognized and are as follows.

- Dr. Travis Cigainero (Chairman) – CEVA Animal Health
- Dr. Bernie Beckman (Vice Chair) - Hy-Line North America
- Dr. Craig Bacon - Simmons Foods Inc.
- Dr. Lynn Bagley – Pitman Family Farms
- Dr. Kate Barger-Weathers – Cobb-Vantress
- Dr. Roy Brister – Tyson Foods, Inc.
- Jonathan Green – Wayne Farms LLC
- Bill Griffith – Peco Foods, Inc.
- David Hurd – Rose Acre Farms Inc
- Dr. John McCarty – Boehringer Ingelheim
- Dr. Petri Papinaho – Jennie-O Turkey Store, Inc.
- Dr. David Rives – Zoetis
- Dr. Angie Siemens - Cargill Protein North America
- Dr. Bruce Stewart-Brown – Perdue Farms
- Steven Woodruff - Woodruff & Howe Environmental Engineering, Inc.

Dr. Denise Heard
Director of Research Programs
dheard@uspoultry.org



Time to Really Take a Look at Novel Technology to Produce the Safest Poultry and Egg Products Possible

Poultry food safety programs have evolved over the years, starting as a purely visual inspection system to a more scientifically-based system that uses current knowledge of microbial science to mitigate its impact. The last few years have seen significant changes in the way poultry and eggs are inspected and regulated. The New Poultry Inspection System (NPIS) and the Egg Products HACCP rule focus on the processes that actually reduce food safety risks based on current science while moving away from those that are not. The Food Safety Modernization Act (FSMA) has also played a role for us to look beyond our traditional food safety systems and move beyond a processing or egg packing plant. All of these approaches allow us to establish controls throughout the supply chain and have a complete farm-to-fork program. These upgrades in inspection have come with challenges on several fronts that will take time to discuss and resolve, but it is in our best interest to move forward with the innovations that are needed to sustain the safety of our products.



Today, we have a need for rapid methods of verification with workflow, automation, throughput, cost and speed being ranked as key focus areas. There continues to be interest in pathogen testing outside the laboratory environment. For example, testing samples within the production facility, on the farm, or even in retail can provide useful information

in investigative testing or providing a degree of reassurance in hold-and-release programs. Ultimately, the goal for poultry and egg processors is to detect foodborne pathogens, such as *Salmonella*, *Campylobacter* or *Listeria*, early enough to determine the necessary interventions and proper product disposition to eliminate the pathogens before product leaves the processing or packing establishment.

Microbiological detection advancements have moved from the traditional plating techniques to more rapid detection methods. Today, we have Polymerase Chain Reaction (PCR) and Whole Genome Sequencing (WGS) that are serving the purpose of detecting foodborne outbreaks. WGS also has the potential to help processors identify opportunities and solutions along the supply chain. PCR is still widely used, but WGS is quickly replacing it because of speed and specificity. Currently, universities and the USDA Agricultural Research Service (ARS) are developing and validating new technologies for pathogen detection and interventions that show promise for ready-to-cook and ready-to-eat products. It is important as an industry to support the technology transfer needed to implement them effectively.



There are many thermal and non-thermal applications to inactivate bacterial pathogens in foods, but their use in poultry and egg products is limited. For fresh ready-to-cook products like poultry meat, chemical antimicrobial interventions have dominated the pathogen control approach. Few non-chemical options, such as ionizing radiation, can be implemented, and there is ongoing research to determine the best use of this technology in poultry. Bacteriophage technology has also made strides to become a reliable pathogen intervention at the farm and in processing plants. Certainly, it is worth exploring their potential to develop novel approaches to pathogen control of ready-to-cook poultry. Thermal inactivation alternatives for poultry and egg products that show potential are high pressure processing, pulse electric field, ozone, chlorine dioxide application and antimicrobial packaging. A multi-hurdle approach is still best when implementing these technologies. As always, it is recommended to validate that your interventions are adequate to your facility.

As an industry, we continue to work with regulatory agencies to open the opportunity to evaluate new alternatives that will also satisfy consumer trends and protect public health. We continue to advocate for support in agricultural research, while also allowing further discussion through our Poultry Processor Workshop and IPPE. Hopefully, these forums will help us move this technology from a “what-if” to a reality.

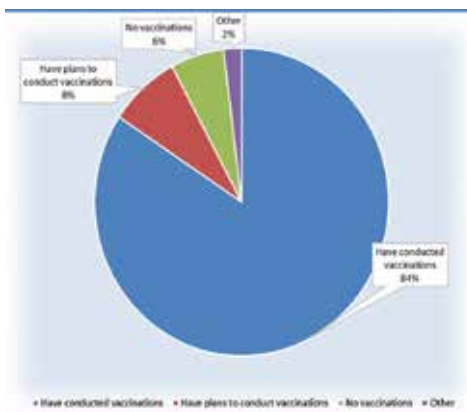
Rafael Rivera
Manager, Food Safety & Production Programs
rrivera@uspoultry.org

Joint Safety & Health Council Surveys on Vaccinations

In recent months, the Joint Safety & Health Council has conducted two surveys on the industry's response to offering COVID-19 vaccinations for workers. The purpose of these surveys is to gain perspective on the leading contributors to the industry's successful effort to administer vaccines and how the industry can expand the percentage of workers getting vaccinated. The Council also wants to determine if social distancing protocols can be relaxed as more workers receive vaccinations. The Council anticipates that the results obtained from these studies can help the industry enhance worker safety strategies to communicate the benefit of vaccination programs and guide decisions on the extent of maintaining social distancing programs.

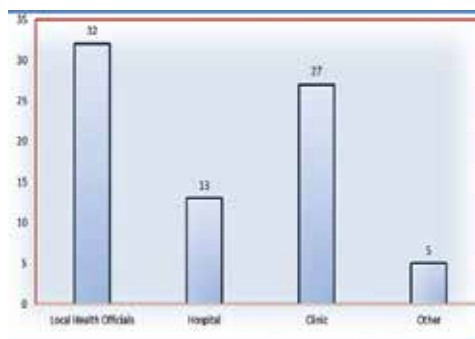
The worker vaccination survey was posed to gain insight on the number of companies that have offered vaccinations or have plans to offer them. An astounding 92% of the poultry industry has offered vaccinations or has plans to do so (Chart 1). The remaining 8% of those responding to the survey indicated they have encouraged workers to receive a vaccine through a third party, such as local health departments, medical clinics and pharmacies.

Chart 1 – "Have you conducted or have plans to conduct vaccinations for COVID-19 at your company?"



When asked how they were able to vaccinate workers so efficiently, survey respondents indicated that medical professionals on staff worked closely with local and state health officials, clinics and hospitals to administer vaccines (Chart 2).

Chart 2 – "If you are providing vaccines to your employees, are you partnering with local health officials, hospitals, clinics, other?"



This highly successful effort to vaccinate workers also raised questions on the need to maintain COVID-19 social distancing practices. Industry members were asked if vaccinations were the key driver to removing COVID-19 protections. Sixty-eight percent of the survey respondents indicated they would not relax current social distancing measures, while 32% of the participants said vaccinating a large percentage of their workforce justified loosening social distancing practices (Chart 3).

Chart 3 – "Does your company's plan to remove COVID-19 protections considering the percentage of employees vaccinated as the key driver for removing them?"



Those contemplating relaxing social distancing practices will do so based on local and state guidance. The 68 percent that said they would not ease social distancing practices indicated the reasoning behind that decision was driven by current Centers for Diseases Control & Prevention (CDC) guidance and an anticipated Emergency Temporary Standard (ETS) by the Occupational Safety and Health Administration (OSHA). Companies remain committed to complying with state and federal guidelines to provide a high level of protection within the workplace.

The poultry industry continues to engage with employees and families that may have apprehensions about receiving vaccinations. Resources, such as streaming videos, internet messaging, table tents, line meetings, radio and TV commercials, public announcements and press releases, have been instrumental in communicating the importance of getting vaccinated. Likewise, partnerships between industry and health professionals nationwide have been instrumental in making industry vaccination programs a success. The poultry industry will continue to promote the importance of receiving the vaccine and review and implement COVID-19 protections with the health and safety of employees in mind.

Matt Spencer
 Director of HR & Safety Programs
mspencer@uspoultry.org

USPOULTRY Sponsors Virtual Webinar Series on Prevention Being the Key to Stopping Avian Influenza

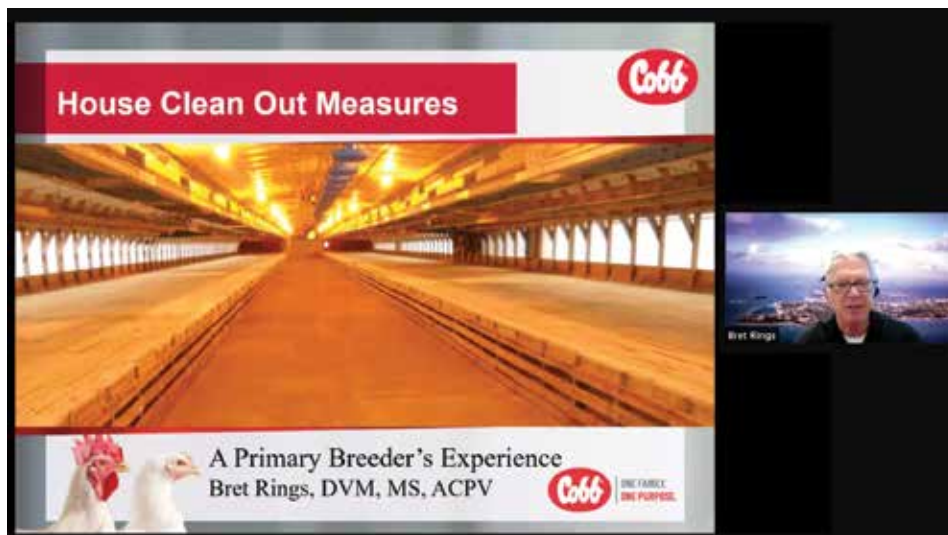
USPOULTRY recently sponsored a series of webinars focused on prevention being the key to stopping avian influenza. Attendees were invited to participate in the virtual presentations and Q&A sessions, joined by the webinar speakers, and hosted by Rafael Rivera, manager of food and safety programs for USPOULTRY. The speakers were carefully selected from a group of industry professionals whose careers have centered around biosecurity and poultry health, enabling them to offer advice and insight built on years of first-hand experience.

The first installment in the webinar series was entitled, "Wild Bird Mitigation Techniques," focusing on wildlife influences on highly pathogenic avian influenza (HPAI) outbreaks and how to build a biosecurity plan that tackles this specific threat. Iowa District supervisor for USDA Animal and Plant Health Inspection Service Wildlife Services David Marks stressed the importance of working with local wildlife departments to make sure that mitigations strategies are both effective and legal.

"Somewhere around 90% of zoonotic diseases that affect humans have some sort of wildlife component to them," Marks commented. "Because of this, the work of wildlife services factors strongly into how we need to address biosecurity."

The second webinar was a dual presentation entitled, "2015 HPAI Outbreak Impact to the Industry and Factors Contributing to Virus Spread" with Dale Lauer, assistant director for the Minnesota Board of Animal Health, and Oscar Garrison, senior vice president of food safety for the United Egg Producers. Lauer and Garrison discussed the 2015 HPAI outbreak from the perspective of their respective fields – turkeys and layers. Although the experience of each industry was slightly different, both focused on consistency and communication throughout an outbreak.

"No matter what level of the industry you are at, if your birds are sick, call someone. If you see an issue with your birds, report it. Having knowledge about an outbreak early is one of the key factors to mitigation," said Garrison.



Bret Rings

"There's nothing magical about it," continued Lauer. "When it comes to putting together your plan for biosecurity, simply say what you're going to do and then do what you say."

During the third webinar, Bret Rings, veterinarian for Cobb-Vantress, presented on poultry house clean out measures, primarily focused on breeder houses. His presentation walked attendees through a detailed checklist of disinfecting and cleaning house systems, recommending a rigorous approach that ensures that nothing is overlooked and nothing gets in.

"Biosecurity is like life insurance – most of the time you don't need it, but when you do need it, it's an absolute necessity," Rings explained. "You never know when you'll need it, and that's why we prioritize biosecurity every time, down to the letter. Consistently following biosecurity measures is imperative to maintain the safety of your flock and operation."

The last webinar provided an overview of biosecurity recommendations from the National Poultry Improvement Plan (NPIP), presented by Dr. Elena Behnke, senior coordinator for NPIP. While many of the recommendations focused on operational organization, such as litter management, perimeter buffer zones and mortality

disposal, Behnke also emphasized personnel training and education.

"We have to be constantly on guard when it comes to biosecurity. There will never be an 'end' to the need for biosecurity measures," Behnke said. "It has to be integrated into everything we do in order to minimize the threats from the outside, keeping our flocks and livelihoods safe and healthy."

Each webinar qualifies as 1 hour of continual education credits towards PAACO poultry welfare auditor recertification.



Dr. Elena Behnke

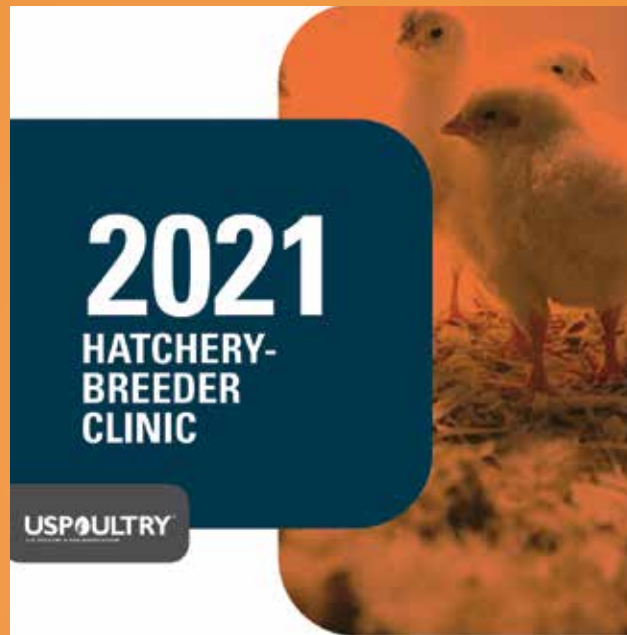
2021 USPOULTRY Hatchery-Breeder Clinic Offers Fresh Perspectives on Hatchery Operations and Breeder Management

Effective hatchery-breeder management is critical for the success of any poultry operation. USPOULTRY's Hatchery-Breeder Clinic brings attendees up to date on best management practices, biosecurity challenges, vaccinations and other topics related to chick quality. This year's seminar will be held July 7 - 8 at the DoubleTree Nashville Downtown, Nashville, Tennessee.

"This year's Hatchery-Breeder Clinic will provide attendees with an engaging selection of presentations, helping them increase performance and quality at their hatchery and breeder operations," said Adam Rutledge, breeder manager at Mountaire Corporation, and program committee chairman. "The 2021 planning committee has done an outstanding job in creating a dynamic program that is guaranteed to provide relevant insight."

The 2021 USPOULTRY Hatchery-Breeder Clinic planning committee, comprised of industry hatchery and breeder operations leaders, includes Jenny Asip, Perdue Farms; Adam Rutledge, Mountaire Corporation (committee program chairman); Sasha Smith, Perdue Farms; and Joe Steed, Pilgrim's.

Agenda topics include a Poultry Industry Review; Hatchery Sanitation; Solar Energy on Breeder Farms; Incubation Effects on Chick Quality; Biosecurity for Salmonella Control at Hatcheries; Everyday Feeding Programs; New Innovation: Individual House Egg Packing System; Chick Delivery: Impact on Health, Performance and Chick Quality and Transport Equipment; Egg Handling, Cleaning and Cooler Rooms...Farm to Set; and much more.



Don't miss this valuable opportunity to gain knowledge and network with your colleagues. To register, reserve your room and see the full agenda for the USPOULTRY 2021 Hatchery-Breeder Clinic, go to uspoultry.org.

As USPOULTRY is currently planning to move forward with the seminar in-person, the health and safety of everyone who attends is a top priority. Guidelines from the CDC and state and local governments regarding COVID-19 will be followed.

Financial Management Seminar
June 28-30, Amelia Island, Florida
Ritz Carlton

Hatchery-Breeder Clinic
July 7-8, Nashville, Tennessee
DoubleTree by Hilton Downtown

National Safety Conference for the
Poultry Industry
August 16-18, Destin, Florida
Hilton Sandestin Beach Golf Resort
& Spa

Women's Leadership Conference
August 19-21, Destin, Florida
Hilton Sandestin Beach Golf Resort
& Spa

Live Production, Welfare & Biosecurity
Seminar
September 15-16, Nashville, Tennessee
DoubleTree by Hilton Downtown

Environmental Management Seminar
September 16-17, Destin, Florida
Hilton Sandestin Beach Golf Resort
& Spa

Human Resources Seminar
September 20-22, Destin, Florida
Hilton Sandestin Beach Golf Resort
& Spa

Poultry Protein & Fat Seminar
October 6-7, Nashville, Tennessee
DoubleTree by Hilton Downtown

Feed Mill Management Seminar
November 3-4, Nashville, Tennessee
DoubleTree by Hilton Downtown

Poultry Processor Workshop
November 16-17, Nashville, Tennessee
DoubleTree by Hilton Downtown

Air Cargo Seminars
Dates TBD
Riverdale, Maryland
New York, New York
Dallas, Texas

Grower Relations Seminars
Scheduled upon industry request

Poultry Wastewater Operators Training
Scheduled upon industry request

Poultry Handling & Transportation
Training
Scheduled upon industry request