Hello, everyone, thank you for joining the webinar. Today's presentation, *Defend the Flock, Healthy Flocks, Healthy Families*, is part of the USDA's Defend the Flock campaign, promoting awareness about the importance of biosecurity and ways to prevent the spread of infectious poultry diseases.

We are here today to support you, and your flocks with expanded biosecurity resources. I'm Doctor Julie Gauthier with the USDA, today I'm joined by Doctor Kathy Benedict from the Centers for Disease Control, and Mr. Greg Privett, president of Privett Hatchery in Portales, New Mexico. I have a few housekeeping items to share before we start. Realtime streaming captions are available for this program. To view, click on the CC in the bar at the bottom of the screen, or for customizable captions, type the caption URL that you see on the slide: [www.bit.ly/Webinar_Spring2022](http://www.bit.ly/Webinar_Spring2022). Type that into your browser. The URL appears at the bottom of every slide so you can link to
captions at any time during the program. Note that the URL is case sensitive.

To submit questions, click the Q&A bundles located at the bottom of the screen. We will answer all questions after the webinar has concluded. The Q&A will be posted along with a recording of this webinar, on the Defend the Flock website. Be sure to follow us on Facebook and Twitter to find out when the Q&A and the recording are available. We will share those on-line destinations at the end of the webinar.

Now we will take a few minutes to introduce ourselves. I'm Julie Gauthier I have been part of USDA APHIS for 19 years, and I work exclusively on poultry health programs. I'm a veterinarian, then an epidemiologist. Until a few years ago I operated a small family farm business raising heritage breed poultry.

Doctor Benedict, please tell me a little bit about yourself.

>> Thanks, Julie. Hello. My name is Kathy Benedict, and I am a public health veterinarian at the division of foodborne, water borne, and environmental diseases Center for Disease Control and prevention. I currently work on multi-state outbreaks of Salmonella and E. Coli resulting from with Exposure to animals and pet products. I'm happy to be here today to represent CDC and to participate in the webinar. Back over to you, Julie.

>> Thank you, Kathy. Mr. Privett, please tell us about yourself.
Thank you for allowing me to participate in this discussion. My name is Greg Privett, I'm a second-generation poultry farmer. I have raised poultry my entire life, but it has been my sole profession for the last 33 Years, I'm the president of Privett hatchery and the current chairman of Bird Shippers of America. I am the New Mexico representative to the NPIP, and the stakeholder representing the mail order industry to USDA/APHIS.

Thank you, Greg. The U.S. poultry industry is one of the largest in the world and an important sector of our agricultural economy. We also have a long, rich heritage of raising backyard poultry in the United States. And many of us enjoy keeping a family poultry flock for a combination of reasons such as fun, competition, tradition, or a little income. Through the Defend the Flock program, we encourage you and all flock owners to prepare for poultry disease outbreaks and make biosecurity an everyday practice. Biosecurity means using all available methods to keep diseases and pathogens that carry them away from birds, property, and people, and turning these methods into everyday habits. Keeping birds safe from infectious disease is a top priority and responsibility for all owners, growers, workers, and enthusiasts who want to raise poultry successfully.

As flock keepers, many of you are interested in learning more about the outbreak of highly pathogenic avian influenza that
is occurring in the United States right now. Before we start our
discussion on Salmonella, let's take a few moments and address
the current poultry health emergency.

Later in the webinar, we will be discussing types of
Salmonella bacteria which are a threat to human health, but not a
threat to bird health. Avian influenza is very different, it's caused
by a virus that is a serious threat to bird health, but CDC
considers it to be a low public health threat to people.

Highly pathogenic avian influenza virus is carried by wild
birds, often wild ducks, that usually show no signs of disease, but
the virus is lethal to domestic poultry and can kill most of a flock in
just a few days. It is very rare for a person to become infected
about high path AI, and in fact, no human cases of infection with
this virus have ever been detected or reported in the United
States.

Wild birds are the source of infection for the backyard flocks
that have been affected in this year's object, and wide life officials
have found more than 250 infected wild birds in different parts of
the country since January. At this time and until the outbreak is
over, I strongly recommend poultry keepers confine their birds to
their coops and do everything they can to prevent contact
between wild birds and domestic poultry flocks. Because wild
ducks are natural hosts for the virus, do not allow poultry to visit
outdoor ponds while mixed with wild ducks and other wild birds.
Once a poultry flock is infected with the virus, the flock becomes a source of infection for other poultry. Birds, people, equipment, feed, and other materials that have been in contact with the infected flock should not be moved as they can carry the virus to other flocks.

It is especially important to report sick birds or usual bird deaths to state or federal animal health officials either through your state veterinarian or through your USDA's toll-free number that is **1-866-536-7593**.

You can keep up to date about the outbreak and know where infections are occurring by visiting the USDA APHIS page that lists cases in domestic poultry and wild birds. Visit [www.bit.ly/USDA_HPAI_2022detections](http://www.bit.ly/USDA_HPAI_2022detections).

Greg, I imagine you are concerned about high path AI affecting your hatchery. What steps do you take to protect your breeder flocks and your hatchery from high path AI?

>> Privett Hatchery is a participant in the NPIP H5/H7 AI Clean Program and are actively testing and monitoring for AI. We follow the NPIP 14 biosecurity points in subpart E, and other active biosecurity measures. We are continually working with employees on the educational piece with ensuring that they understand the heightened risk and their role to play in keeping the hatchery and flocks safe.

There are no guaranties with AI. I think sometimes we forget
that programs are not a guaranty that nothing will ever happen. But we have a very strong surveillance program, and we also have biosecurity and education. We have strong partnerships with industry, the states, and APHIS. This means that if it does somehow get into a poultry operation, we are able to act very quickly and use the network of people to help. Obviously, though, prevention is the aim.

>> The CDC says that the recent high path AI infections in U.S. wild birds and poultry pose a negligible risk to the public. Kathy, can you point to people to sources of information about human health and avian influenza?

>> Yes. The links on the slide are for two articles on the avian influenza situation right now, and the main CDC website for avian influenza resources.

>> USDA APHIS has many resources available that will help you prepare for poultry disease outbreaks. The biosecurity principles that we promote through the Defend the Flock campaign will help protect your flocks from germs that cause infectious diseases, whether the germs are bacteria like the Salmonella or viruses that cause avian influenza, and other contagious poultry diseases. This slide includes links to past webinars that provide additional information on high path AI such as the signs and symptoms, what to do if you suspect, how to mitigate risks, and its impacts to both small flock growers and
commercial producers. At the end of this webinar, I will review other free tools and resources available to help you defend your flocks.

Spring is almost here, and people are looking forward to getting outside. Some will be starting or expanding their home poultry flocks. I was at my local farm store a couple of days ago, and I saw the schedule for chick arrivals for March and April. The store has their brooders ready for the cute fluffy chicks to arrive. Greg, I imagine your hatchery is busy this time of year, getting ready to provide the chicks. Could you tell us about your business?

>> I don't think the word busy comes close to describing what we are right now. Privett Hatchery is one of the largest mail order hatcheries in the country. We supply farm and ranch stores throughout the nation, we also supply chicks to individuals, there's a tremendous amount of coordination to make sure that the chicks arrive on time to your stores, offering over 175 varieties and maintaining all the breeding stock for this is a year-around endeavor.

>> Some of my friends and family have a newfound passion in growing their own food, gardening, and keeping a small home flock of poultry. What have you noticed over the years and recently about some trends in small flock ownership?

>> The trend I'm noticing is more of a back to nature it
started about 10 years ago, the COVID epidemic has pushed to levels I have never seen. We have seen that there are two types of owners now, those who only want the best layers, regardless of the appearance of the birds, the other is more inclined to purchase the fancy or more rare, unusual type of birds. Egg color as huge fact in this, also, blue, green, and dark chocolate-colored eggs are the rage right now.

>> Kathy, it seems like you and I have similar jobs, but with a twist. My team at APHIS works with small flock keepers to help them raise healthy poultry and your team at the CDC works with small flock keepers to help them raise healthy families. Many of the principles of infection control and biosecurity apply to both poultry and human health. Please tell us about your team’s work.

>> That's right, Julie. My team at CDC works to investigate outbreaks of gastrointestinal illness and provide recommendations to prevent these infections so that people stay healthy around their animals and pets. Evidence year we see large outbreaks of Salmonella illnesses in people who have contact with poultry and backyard flocks. Poultry can carry Salmonella while looking healthy and clean, so it's especially important that people take simple precautions like hand washing every time they are interacting with poultry or their environment like coops to prevent getting sick.

>> Like Greg, I expect you have seen some trends in poultry
keeping by U.S. households also. What are the trends you have discovered about Salmonella infections and people who keep small flocks?

>> We have also seen an increase in illnesses and outbreaks linked to backyard poultry over the last few years, we notice in our outbreaks that people tend to have close interactions with their poultry, which is great for companionship, but might increase risk for getting Salmonella infection.

>> How do people become infected with Salmonella? What are the signs of infection?

>> People can get sick from touching backyard poultry or anything from their environment, and then touching their mouth or food and swallowing Salmonella germs. People may experience diarrhea, fever, and abdominal cramps. The symptoms usually start within 6 hours to four days after infection and last four to seven days. Most people have mild illness and recover on their own with just supportive care. There are some people, like children under five years old, adults 65 years and older, and those with weakened immune systems that are more at risk for severe Salmonella infections. It's especially important for families with these groups to follow the CDC recommendations for keeping backyard poultry so that they can stay healthy.

>> There are thousands of strains of Salmonella bacteria in the world, only a few of them cause disease in poultry. It's
common for birds to carry Salmonella bacteria without becoming sick or showing any signs of infection. Greg, will you tell us about your experience with Salmonella infections in poultry?

>> Sure. Salmonella is extremely common in all poultry. I have always said that God created Salmonella and needed a place to keep it safe and warm, so God made chickens. But all kidding aside, it's a serious issue in commercial and backyard poultry. Poultry are rarely affected by Salmonella, which means they do not get sick or show any signs of illness making it difficult to determine the presence of Salmonella in birds. The lab testing is the only way to identify and categorize most Salmonella. Salmonella pullorum and Salmonella gallinarum, the bacteria that cause pullorum and foul typhoid are the two main types of Salmonella that will harm birds. The NPIP, the National Poultry Improvement Plan, is a voluntary program that was started in 1935 with one of its prime objectives, to eliminate the pullorum, since that bacteria can be transmitted from hen to her progeny, and the pullorum was severely impacting the growth of the poultry industry and causing lots of birds to die. Today we check for pullorum. For example, all NPIP certified hatcheries that ship poultry are required to maintain a PT clean status and to maintain sanitation standards. Without this NPIP certification, most states will not allow poultry to be imported. Several hatcheries go beyond the PT clean status and hold additional NPIP certifications
like the NPIP Salmonella monitored program.

>> That's right. Your hatchery participates in the NPIP Salmonella Monitored program, too. Could you describe that program and what you need to do to maintain your participation?

>> The Salmonella program was developed to provide prevention and control of Salmonella through regular testing. It is intended to reduce the incidence of Salmonella organisms in hatching eggs and day-old poultry through an effective and practical sanitation and testing program at the breeder farm and in the hatchery. This will afford other segments of the poultry industry an opportunity to reduce the incidence of Salmonella in their products.

We are required to test for Salmonella on a regular basis. This allows us to see any trends or what potential issues there may be. This information used to develop appropriate and practical Salmonella intervention measures, a qualified veterinarian familiar with the operation reviews the data and changes to the Salmonella program are made when needed.

>> We have talked about the problem of Salmonella infections that people can get through contact with live poultry. What can we do to prevent these infections in people? Poultry breeders, hatcheries, places that sell baby poultry, and the customer all have a role to play in prevention, Kathy, can you start with your advice for small flock keepers to reduce risk?
People should always wash their hands with soap and water right after touching poultry or anything in the area where poultry live and roam. This means that after people work in their coop and collect eggs, that they wash their hands as soon as possible, people can also consider keeping hand sanitizer at their coop and using that until soap and water are readily available. Adults should supervise hand washing for young children to make sure they are washing really well.

People should also keep a dedicated pair of shoes for working in their coop and keep those shoes outdoors such as in a shed or garage so that they don't bring germs on those shoes into their houses. We don't recommend people letting their birds roam freely in their houses either because Salmonella germs are on their bodies, can contaminate floors, kitchens, or any of the areas they are in, and people may not remember to fully clean those surfaces and get sick from touching them.

When it comes to eggs, people can reduce their risk of Salmonella infections by following the 5 C's. First on this list is coop cleaning. Maintaining a clean coop, floor, nests, and perches will help to keep eggs clean.

Next, collect eggs often. Eggs that spend a significant amount of time in the nest can become dirty or break. Cracked eggs should be thrown away. Third, clean eggs with fine sandpaper, a brush or cloth. Don't wash eggs because colder
water can pull bacteria into the egg. Fourth, cool eggs by refrigerating after collection, and finally, cook eggs thoroughly, raw and under cooked eggs contain Salmonella bacteria that can make you sick. Additional information is available on the CDC website including info graphic that can be printed. Back over to you, Julie.

>> Greg, what can poultry breeders and hatcheries do to help keep their customers safe and avoid these infections?

>> I believe being a member of the NPIP is crucial. The structure of the NPIP guidelines gives all producers a set of practical and proven methods to deal with poultry diseases. Another is making sure the customers are aware of the potential Salmonella. Every order that leaves Privett Hatchery has a safe handling flyer produced by the CDC with it. Whether this is the first-time poultry owners or a retail store that sells thousands of chicks per month, every hatchery I deal with strives to produce the best quality and healthiest poultry they can.

Salmonella vaccines are available to hatcheries and breeders that can be given to help prevent the birds from carrying Salmonella. Many are available with the common Salmonellas, and custom vaccines tailored to specific Salmonellas found on a particular farm or facility. This, in combination with good sanitation practices, are effective tools to reduce the presence of Salmonella in chicks. Also, important to note that Salmonella could be
introduced from other sources as well. Things such as rodents, amphibians, reptiles, and even people can harbor Salmonella.

>> Many people start their flocks by purchasing chicks, ducklings, or turkey poults from farm stores and other retailers. This question is for both of you: What can retailers and distributers who sell baby poultry directly to families do to help prevent Salmonella infections in their customers? Let's start with Kathy.

>> Retailers and distributers should clean and sanitize poultry display areas between shipments of new poultry by removing the debris first and then sanitizing. To keep customers healthy, provide hand washing stations or hand sanitizer next to the poultry display areas and tell customers to wash hand right after they leave these areas, display poultry out of reach of customers, especially children. And also provide health information to customers before purchases and put-up posters or stickers in the flock display areas.

>> Greg, your thoughts on best practices for farm stores and other retailers?

>> I think education is one of the biggest things we can do. Best practices and safe handling information is available to anyone. Prominent displays of safe handling procedures in the store and take-home safety best practices information. Simply making sure the customer does not have direct access to the
birds is a great first step, stores are not petting zoos and should not be presenting birds for customers to handle. Display birds in a manner that allows people to see and appreciate them without the temptation of holding and playing with them. Make sure all employees are provided training on how to care for the birds. This includes knowing how to clean equipment properly and making sure they know how to clean equipment properly and making sure they know to wash or disinfect their hands after handling poultry. Sanitation and hygiene are your best tools to lessen the chances of Salmonella issues. The majority of the large retail stores have very well written guidelines for employees. Having managers make sure that all the employees understand and following the guidelines is one of the best interventions a farm store can have.

Has anyone purchased raw poultry products in the grocery store? There's a Salmonella warning label on every package. This has been used to educate the population of dangers of raw poultry products. This practice has been successful in reducing Salmonella infection across the country. Making consumers aware of the issue is a key step in reducing the occurrence of Salmonella issues. Once again, education is paramount.

>> We have discussed the main points of Salmonella transmission to people through contact with live poultry, but there is much more information to share and many questions to answer. Kathy, where can people go for more information about
preventing human Salmonella infections and making sure they are handling live poultry safely?

>> The CDC website has a lot of valuable information, our healthy pets, healthy people page has a section dedicated to backyard poultry where you can find great resources including specific guidance and recommendations. You can find that website by visiting www.cdc.gov/backyardpoultry.

>> Greg, can you steer people towards sources of information about choosing baby poultry and getting off to a good start with a new flock?

>> Defend the Flock is a great resource for new poultry owners. Most hatcheries provide information also. The CDC also has a wealth of information on their Web page. There are numerous websites dedicated to poultry. But be aware some of the guidance is more anecdotal than proven methods, and in part, that is because there's no single silver bullet or solution for controlling Salmonella. I think it's extremely important to recognize that we don't have just one strategy, such as vaccination. We use a combination of strategies, including using trusted source flocks, such as those belonging to the NPIP, using good husbandry, sanitation practices, cleanliness, and vaccination when appropriate, regular testing and monitoring for the trend or problems and then making adjustments in consultation with poultry extension specialists and veterinarians.
APHIS veterinarian services has developed a library of checklists that provide practical tips and recommendations. We encourage you to visit the Defend the Flock website to view and download these materials. All the checklists are available in multiple languages including Spanish, Chinese, Vietnamese, and Tagalog. On our website you will find lots of other free tools, includes videos, recordings of prior webinars, info cards, newsletters, posters, and other resources. APHIS has also created social media content to help promote biosecurity. Infographics covering many best practices are available in English and Spanish. We hope that you will share these with your colleagues and fellow poultry keepers on Facebook, Twitter, Instagram, and other social media channels to make sure everyone is using biosecurity every day, every time, no matter the size of the flock.

Be sure to check out more helpful information on our social media channels. This presentation, along with answers to your questions, will be available for download from the Defend the Flock website shortly. Be sure to follow us on Facebook and Twitter to be notified when the presentation is available.

And before we go, on behalf of APHIS, thank you, Kathy, and Greg, for sharing your valuable insights and your knowledge with us today. And thanks to all of you for joining us on this
webinar. Let's keep our flocks and families healthy together.