February 27, 2020

Defend your Flock from Poultry Disease: Know the Signs and How to Respond

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>>> Hello, everyone, thank you for joining this webinar. We're excited to be celebrating Bird Health Awareness Week, part of the U.S.D.A.'s campaign, promoting the importance of biosecurity. We're here to support you and your flocks with expanded biosecurity resources. Practicing good biosecurity is the best way to keep flocks disease free. I'm Dr. Julie Gauthier, with the U.S.D.A., joined by Dr. Tahseen Aziz, and Dr. Michael Martin, from the North Carolina Department of Agriculture and Consumer Services. Before we start, we want to let you know that closed captions are available for this program. For anyone who wishes to view real time streaming captions, type the caption URL, www.bit.ly/Feb27-Webinar into your browser. The URL appears at the bottom of every slide so you can link to captions any time. The URL is case sensitive.

Now, we will introduce ourselves. I'm Dr. Julie Gauthier, and I'm the assistant director for poultry health, working for U.S.D.A. APHIS. I'm a veterinarian and I keep a small flock of poultry at home.

>> I'm Dr. Tahseen Aziz, a veterinary psychologist and diagnostician. I'm with the North Carolina Diagnostic Laboratory System and Department of Agriculture and Consumer Services.

>> Hi, I'm Mike Martin, director of poultry programs for the veterinary division at the North Carolina Department of Agriculture.

>> Thank you, Dr. Martin. Please feel free to submit questions by clicking the Q&A button at the bottom of the screen. We will answer your questions after the webinar has concluded. The Q&A will be posted with the recording of this webinar on the APHIS website. Be sure to follow the Defend Your Flock campaign on Facebook and Twitter to find out when the recording and Q&A are available. We will share those online destinations at the end of the webinar.

We will start our presentation by talking about why prevention is so important, and usually much more successful than treatment, like the injection this sick hen is receiving. Preventable infectious diseases cause much suffering for poultry, all over the world. Flock keepers often contact me asking for help, and often it's heart breaking for both of us because no treatment exists that will cure the problem, or it's too stressful for chickens to undergo treatment, or medication is too costly. I wish they contacted me earlier, about how to prevent the problem through biosecurity. Mike, I know you also had this conversation with people faced with sick flocks. Can you talk about why prevention is more effective?

>> Sure, we will talk a lot during this presentation about various diseases, and you will see that there are a fair number of diseases with no treatment, so these birds will get sick, exposed and may suffer while you're figuring out what to do, and there may be no treatment available, or it may be too late to treat them effectively or may not be cost effective. So when we look at this situation, prevention is key, from happening at all, mitigates everything so hopefully you don't have to go down the treatment path.

>> The step you take to stop the spread or introduction of harmful germs is biosecurity. A biosecurity plan is a combination of steps, and every flock is unique. So biosecurity is unique and customizable for your property, for the reason you keep the birds, climate and other things that make the flocks special. To be successful, biosecurity should be good habits, easy to do every day, every time. It should be practical, affordable, and focus on the big risks, such as bringing new birds home. When I talk to other small flock owners, they ask why they need a biosecurity plan if they only have a few chickens. I say, with a few simple habits, they can have a lot of control

over the risks to their flock's health. My advice to small flock keepers is about the importance of practicing biosecurity.

>> Prevention is better than treatment. If you are doing disease prevention, the way to start is having a plan for biosecurity or a physical plan, either written or in your head, as far as how to control against risks of disease. For every flock, you will have a bit of individuality, each flock, each environment, is different. It's up to you to determine the most common, most likely risk factors for bringing bad bugs into the population. After that, it's looking at what ways to prevent the diseases from getting into the flock and determining what will be cost effective and time effective for you, and determining how to go about it, consistently, as far as practicing good biosecurity. So, it's an individualistic plan, but planning, nonetheless.

>> In the next part of the presentation, we will talk about poultry problems that biosecurity can prevent. They're grouped into three major categories. First, rare but highly contagious and deadly poultry diseases. Next, common and preventable diseases in the United States, and also, germs that don't make poultry sick but can be dangerous to people. Without biosecurity, the diseases that we will show are more likely to happen. By practicing biosecurity every day, every time, you may never see the problems we're about to describe. To know whether a disease is affecting your flock, you must know how to spot a sick chicken. We will help you identify sick birds. Tahseen, what are some warning signs?

>> First, you should show the normal behavior and appearance of the birds. Healthy birds should be alert, active, have a normal appearance, and posture, should walk normally. The most common symptoms in sick birds include decreased activity, lethargy, not eating, anorexia, limping, leg weakness, abnormal posture, loose or bloody droppings, discoloration, or swelling of the comb, swelling of the eyelids, difficulty breathing, rasping breathing, ocular secretions, watery eyes, swelling of the joints, severe color loss, swollen head, thickening of the skin of the lower legs.

>> So the young chicken on the left and baby turkey on the right don't look like they're feeling well. Tahseen, could you describe the sign?

>> You're right. Certainly, these birds don't look healthy. They look lethargic, crouching, which means they're in hunchback posture. On the right, the turkey looks, ruffled feathers, droopy wings and eyes are closed. Definitely, these two birds are not healthy.

>> Sometimes poultry can act strangely or have an unusual appearance but they're not sick. What's going on with the hen in the left, Mike?

>> The bird on the left is exhibiting normal behavior for this chicken. It's a brooding hen. It's a chicken becoming a good mom, sitting on the eggs, keeping them nice and warm. People might think the bird is not active, not feeding and getting water as they used to, but it's normal. The one thing to watch out for, some can become more maternal, and may not get enough food or water for themselves. It's good to watch them and kick them off the nest once in a while. On the right, a, its skin has a normal pigmentation. People may think there's a skin disease or something wrong, that needs to be seen by a vet. That's not the case. One thing Tahseen talked about is knowing what is normal, to determine what's not normal. It's upright, responsive, so a lot of that goes to help you determine this bird is actually a normal bird.

>> Now, details about some chicken diseases we hope you never encounter. These can be grouped into four syndromes, infections that can cause sudden death of most of the flocks, those that cause aggressive illness, affect the mouth and nose, infections that cause nervous system -- signs like Marek's disease. In the first category, these cause sudden death of many birds in a flock. These two stand out. Avian influenza, and virulent Newcastle disease. You may see them abbreviated as AI, and VND. We work hard to keep these out of United States. They cause suffering and death, and outbreak, it impacts the economy and jobs related to the poultry industry and the prices we all pay for eggs and other poultry products. If a number of birds die suddenly without explanation, this may be a design of one of those diseases and the keepers should notify the USDA area veterinarian or state veterinarian right away. What is avian influenza?

>> Avian influenza is a highly contagious, transmissible disease caused by a virus. The virus that causes the disease, different kinds of birds, and spread through secretions and droppings. People can catch the virus on hands, shoes, clothes and equipment. Also, remember that wild birds can be an important source of infection. The symptoms of avian influenza really vary. Depends on the virus strain and host species, so what kind of bird. Some strains produce mild respiratory symptoms such as coughing, ocular and nasal secretions, swelling of the nasal sinuses.

That's a common sign in certain birds such as ducks and turkeys. On the other hand, some strains are very virulent and can cause high mortality, that can reach 100% in a few days. In some cases, chickens may die without showing symptoms. The bird is just found dead. In other cases, symptoms can include blue discoloration and swelling of the head, red discoloration of the shank, the lower leg and feet, and sometimes, blood stained ocular and nasal secretions, and diarrhea.

>> On the next slide we show the signs that infected birds can show. Can you talk about treating these birds?

>> Avian influenza is really not curable. There's no treatment, like other viral diseases in poultry. So there's no treatment for avian influenza.

>> Virulent Newcastle disease on the next slide is similar, isn't it?

>> Actually, it is. Newcastle disease infection, virulent strains can be similar, the signs, to avian influenza, and can spread from infected birds through secretions and feathers and droppings. People can move these germs on their hands, clothes and equipment.

>> Can you describe the signs of infection with virulent Newcastle? Can it be treated?

>> Again, Newcastle disease is not treatable. The symptoms vary depending on the strains. Some strains cause mild respiratory disease with mild symptoms. Other strains are very virulent, and can cause high mortality that can reach 100%. Symptoms include severe lethargy, decreased feed and water intake, sneezing, nasal secretions, coughing,

gasping for air. Other symptoms, greenish diarrhea, and sometimes we see swelling around the eyes.

>> These are terrible for birds. Next, we have the signs, and three pictures that show a rooster and hen affected by virulent Newcastle disease.

>> The picture on the left shows two birds, lethargic, you can see discoloration of the comb, and the picture on the right, you can see secretions, discharge from the nostrils and mouth.

>> Now, we will focus on more common diseases. These are often found in backyard flocks in the United States and preventable with good biosecurity. These are respiratory diseases, Marek's disease, and coccidiosis. They're not the only infectious disease affecting chickens, but the most likely flocks are likely to see. The common respiratory diseases in chickens are based by bacteria and viruses. Mycoplasma infections are common, mycoplasma synoviae and mycoplasma gallisepticum.

You will often see these abbreviated as MS and MG. Infectious coryza is another disease. ILT and IB are also, can be spread by infected birds, including wild birds, through droppings, body discharges, and feathers. Again, people can move the germs around on their hands, shoes, clothes, or dirty equipment. In the case of MG, the hen can spread it to chicks through the eggs. Tahseen, what are the signs the flocks are affected by one of these diseases?

>> The signs of respiratory disease are not specific. They're general and usually don't pinpoint to a certain disease. The most common symptoms in birds affected with respiratory disease are rasping breathing, secretions from the nostrils and eyes, ocular and nasal discharges, swelling of the eyelids, gasping for air. Difficulty breathing, the bird opens their mouth during breathing, sometimes, with changes in egg quality such as production of misshapen eggs, thin shells, and sometimes, egg without shells. These symptoms are general, and not specific for, all it can tell us is that the bird has respiratory disease. As far as the treatment, it depends on the causative agent. With viral diseases, there's no treatment, like other viral diseases in poultry. For bacterial diseases such as mycoplasma, the

diseases can be treated with antibiotics, however, keep in mind that although the antibiotics may cure the disease, the birds look fine, no symptoms any more, but they can remain a carrier. The germs remain in the bird and the bird can shed the causative agent and can be a source of infection to other birds in the flock.

>> The next four slides show cases of each of those respiratory diseases. Tahseen, please describe the signs you see in each photo.

>> This is a turkey, you can see there's swelling of the face under the eye. And there's, swelling of the nasal sinus. In this case, the bird is infected with mycoplasma.

>> Next.

>> The other slide shows the same thing. You can see the swelling in the face, just under the eye. And this shows infection of the nasal sinus. In this case, it's caused by a bacteria. Next, this bird, stretching of the legs, and opening of the mouth. These symptoms indicate that the bird has difficulty breathing. That's why the bird twists the head and opens the mouth, trying to get air. In this case, the disease is infectious laryngotracheitis, a viral disease. These eggs are misshapen, not normal shaped. One of the eggs, the shell is cracked, broken. The reason is the shell is thin and can be broken easily. In this case, the eggs from a bird with infectious bronchitis, a viral disease and production of misshapen or thin shelled eggs, eggs without shells , or symptoms of infection with this virus.

>> A disease that is common in backyard poultry is Marek's disease. Chickens infected with this virus early in life but show no signs until they're older, they have usually been part of the flock for months or years. The virus is spread in the feather dust and can last in the environment for many months. People can also carry the virus around on their hands, clothes and shoes unless they clean up well after handling infected birds. Tahseen, what does this virus do to birds? Can it be cured?

>> Marek's disease is common for backyard chickens. As Julie mentioned, it's mainly a disease of chickens and infected chickens share the virus in the dander and can transmit it to other birds in the flock. There are different forms of this disease. But two forms are common. One form is characterized by the presence of tumors, like cancer, and the other form is characterized by damage to the nasal tissues in the body, including nerves, brain, and spinal cord. There are other forms, one is what we call the ocular form, with discoloration of the eye, that's not really common. As far as symptoms, chickens with advanced tumors, or cancer, become lethargic, lose weight, and die.

The other form, can affect the nerves ands sometimes brain and spine cord -- common in backyard chickens. The symptoms start with limping, wobbling when walking, sometimes with a droopy wing, then gradually the symptoms progress to an inability to stand. The bird becomes paralyzed. Classic posture is one leg forward, and the other leg, backward. But this is really not always the case. This posture has been described, you can see the picture, in textbooks, but really you don't always see this. Sometimes the bird is totally paralyzed, cannot stand. Other symptoms is twisting of the neck, but this, again, sometimes, not always the case.

>> How can this be treated?

>> Marek's disease, no treatment because it's viral.

>> Bad one. Mike, you don't usually recommend vaccinations for backyard birds except for Marek's disease?

>> Correct. Most of the vaccinations out there for poultry, for a lot of diseases we talked about previously, are not really necessary in backyard birds. Unless you have something like a specific history in the flock, maybe you should vaccinate, or some other specific environmental factor. But with Marek's disease, all backyard birds should get the vaccine. It's challenging in order to get an effective vaccination for Marek's disease. The best type of vaccine requires specific storage, liquid nitrogen, so it's not cost effective. There are vaccines that can be stored at room temperature, not the best but definitely better than doing nothing. With the vaccine, also, it's

challenging, you must get the vaccine in the birds within 4 hours after the birds hatch. Any later than that, the vaccine is most likely not doing any good, whatsoever. If you try to vaccinate all the birds in one clutch, and the vaccine is only good for a couple hours after being mixed, it's best to work with a veterinarian.

Along those lines, a lot of the things we have been talking about, really would be beneficial to have a very good relationship with your veterinarian, that's going to work with your poultry flock. You talked about your biosecurity plan. The veterinarians can be very helpful building the plan that is right for you. We talk about how to recognize a disease getting in the flocks. That's what veterinarians are trained to do, recognize disease. We talked about a lot of the diseases looking similar to each other. Veterinarians can help you determine what disease your bird has and beyond that, do you want to treat, not treat, what will you use? Again, a key factor that veterinarians can help you with.

If you try to treat yourself and don't know what the birds have, you can do more harm than good, developing disease resistant bugs, in the environment. So a good strong veterinary relationship is critical if you're owning backyard birds. Another thing, with Marek's disease, if you're looking online, and trying to research up on Marek's disease there might be online sites that talk about the disease being in birds from about four to 16 weeks of age. With backyard birds, that's definitely not the case. There are many, many cases of Marek's disease, in backyard chickens, for six months, a year, more than a year, so don't be fooled by that, if you see it.

>> Next, we will talk about coccidiosis, another extremely common disease of backyard poultry. It's caused by a parasite in the intestinal tract. Coccidiosis is spread thorough the droppings of infected birds, and they can easily contaminate equipment like transport cages and people can easily become contaminated on clothes and shoes and we can carry it from place to place without knowing it. Tahseen, how would a care taker know birds have coccidiosis? And what should they do?

>> Let me say something about coccidiosis, first. Coccidiosis is a disease of the intestinal tract caused by a parasite, and there are different kinds of this parasite that infect different areas of the intestinal tract. Infected birds share in the droppings, and other birds ingest, from the environment. The eggs of the parasite need damp areas to become effective, to other birds in the flock. So wet area, for example, around the drinkers, are really a paradise for this parasite. The eggs of the parasite need to develop and need damp areas. As far as symptoms, they're not specific, depending on the type of parasite, which part of the intestine is affected, and also the severity of the infections. With mild cases, you may not see much. But with severe infections you can see anorexia, bloody droppings, lethargy, and there can be heavy death loss. So coccidiosis should not be underestimated. It can cause heavy loss in the flock. The disease is preventable and treatable. The disease can be prevented, there are medications that can be preventive and medications that can treat the disease. Your veterinarian can prescribe medications for the flock and I emphasize that keeping the floor dry, especially around the drinkers, is very important to minimize the spread of the infection.

>> Now we will change the topic to talk about protecting human health through biosecurity. Fortunately, people and poultry don't share many diseases, but there are a few infections people can get from close contact with live poultry. We have been talking about germs that make poultry sick. But salmonellosis can be transmitted from healthy looking poultry to people. Because it's an important illness for people who keep poultry, we will detail the disease and how to prevent it. Worth mentioning, though less common than avian influenza, psittacosis is transmitted from birds to people. Certain strains of avian influenza have been transmitted from birds to people. Tahseen, tell us about salmonellosis.

>> Salmonellosis is a bacterial disease caused by a bacteria, that's common. Wild birds can be infected, and other farm animals, rodents, all these are important source of infection of your flocks with salmonellosis. One thing to remember, in backyard poultry, infected with this, it's usually silent, meaning the birds carry it in their intestines but show no symptoms. This bird sheds in the droppings and can be a source of infection to

humans. Contamination of hands from handling infected birds or working in poultry premises can spread it to humans. The bird can carry it, with no symptoms, but they shed in the droppings and when you handle the birds or work in the premises, you may carry this and can cause infection. Children, elderly people, people are weak immune systems, are especially susceptible to illness from this. As far as prevention, one step you can take, wash your hands after handling birds, and after working in the premises of backyard chickens. We tell people there's one thing you can do to prevent salmonellosis. Wash your hands, wash your hands, wash your hands.

>> Thank you. Next slide, we have, people can have mild cases or severe cases of diarrhea.

>> Actually, for humans, the disease with be serious. Especially in young people and children. And people with weak immune systems and elderly people. It's very important to be careful when you handle birds, when you work with these backyard chickens, extremely important that you wash your hands with soap and warm water to prevent infection.

>> It seems hard to keep kids from picking up those cute chicks to, kiss them but it's truly important, make sure could wash up and don't snuggle to closely. Next, we talk about an outbreak of salmonellosis that occurred, associated with pet poultry in the United States. Mike, can you describe them?

>> Like what Julie and Tahseen talked about, take the pieces of the puzzle, and that's what creates an outbreak. A situation, there's a common source of birds that may have been exposed to it, show no signs, and next thing, people, elderly people, maybe not washing hands properly, then you can end up with something that looks like this. It's a map from the CDC showing the most recent outbreak in 2019.

You can see the number of cases in each state. This is a large outbreak. On the next slide, according to CDC, this was the largest number of people in a given year to become sick from salmonella. Year after year we try get out information how to prevent the disease, getting sick from birds that

silently carry it, yet year after year there's a large number of cases. In this case, the largest number we ever had. Very important to remain very aware, conscientious that, these healthy birds can or disease that's can make you sick.

>> We just covered many ways things can go wrong, but all the diseases can the prevented through biosecurity and managing a flock well by keeping the birds comfortable. We will provide tips on simple measures that anyone can use, to keep birds healthy. A collection of good habits that you follow every day, every time you take care of your flock. It's not possible to completely eliminate all the risks to a backyard flock but you can significantly reduce the major risks and sources of germs to be successful and practical, biosecurity habits should focus on the big risks. Mike what are the big risks? And the steps that small flock keepers it use?

>> Julie, here's a listing of some of the most common risk things that we would consider. Introduction of new birds into an existing flock is a big risk. Wild birds present a risk, basic cleaning and disinfection if things get really dirty, visitors that own poultry themselves can be a problem. Rodents, insects, also, and a stressful environment. For each point, we will talk about them in some depth. Next, new poultry coming into the environment and contact with existing flock. First of all, if you don't have to do this, just don't bring new birds into an existing flock. This is probably the number one reason I see disease breaks that occur in backyard poultry, someone bringing in birds this think about healthy, to existing birds and suddenly everyone gets sick. If you're going to be doing it, I'd use sources from birds that you have some information about, as far as their disease status.

Flocks that participate in the national improvement plan could be a good source because at least there are some information coming from them. The worst places are things like auctions, swaps, county and state fairs, areas where you have a lot of birds from a lot of environments that are unknown, all coming together, potentially sharing diseases and you bring one back to yours as they can contaminant your flock. If you're bringing birds, I highly recommend you use a quarantine procedure.

This doesn't mean separating just the two groups by chicken wire. It means actually, a physical separation where your old birds are in one area and new birds in a completely separate area. This quarantine should be without any medications, going into the new birds, and then, also you want to have at least the separation for at least thirty days, period of time. You're making sure the new birds are not showing signs after being stressed in a new environment. Next slide, wild birds, if you set up an environment where your poultry are kept that, wild birds will naturally go to, it be a problem. Set up your coup away from ponds, where wild water fowl might be coming in, can be helpful. Spilled feed will attract wild birds, too. So keep things clean, covered up and hopefully only accessible to your poultry. People can use decoys to keep wild burdens away. But they quickly figure out things, if you don't change it up. I recommend that every day or two, you move your scarecrow, changing the clothing on it, putting a hat on, even if it's just a fake owl, moving it around will help keep the birds away. Next, cleaning and disinfection.

Remember, if you use disinfectant, it typically won't work with organic material. So anything like poop, feathers, stuff, really need to be cleaned up before you put your disinfectant on. The waters here, you can see the water is green. It should never be green. It's a sure sign that these waters need to be cleaned more frequently. Your clothing, equipment, especially if birds are in quarantine, definitely, disinfect, and regularly wash your hands. Visitors. Often, people like to relate to other people who own backyard poultry. We like to share our coup design, but this can be risky. Your friend might have a disease they can accidentally bring, or vice versa. So, if you can avoid visitors that, that's the best thing but if you have visitors, make sure they have a really good idea about biosecurity, clean shoes, clothes, and shower after going back and forth between the two flocks.

Next slide, we will talk about insects and rodents. A lot of things we talked about with wild birds, the same type of stuff here with rodent activity. Keeping things clean, keeping things like easy feeding and watering areas for rodents, is a good idea. Mitigate against the rodents want to coming get rid of hiding spots, tall grass, rodents like to make nests and hide out. So keeping a tidy environment around your coup, that goes a long way to

prevent from rodents and insects. If you have problems, you can use traps and bait station, but they must be maintained properly. This station has no bait at all. It's filled with debris that's not helpful and can be bedding material for rodents. I've opened up a bait station and found a family of baby mice living in the bait station. That's not a well maintained station. That's doing more harm than good, so be smart. Maintain them properly. With that, I will pass it pack to Julie.

>> These are tips anybody can use. I'd like to share steps I use. Not only introducing germs, but spreading disease within the flock. I also recommend quarantine for new birds. I use the 30-30 rule. Keep the quarantined birds 30 feet away from other birds, and for 30 days, at least. Many backyard flocks have not only chickens, but other types of poultry. Often, birds of different ages, from baby to adult birds, it's good to keep your types and ages of poultry separate, like separated pens for chickens and ducks, and keep the babies separated from the adults, especially important for preventing Marek's disease from spreading. I start my route from the youngest to oldest, starting with the babies in the brooder. Finally, I leave quarantined birds until last and take care of sick birds after everyone else so I can't track disease throughout the flock. Then, I go back, I do not go back to the flock until I have showered and put on clean clothes. Comfortable birds are more likely to be able to fend off disease than stressed birds. Birds are comfortable when they live low stress lives, good food, clean water, not constantly worried about predators, and have a safe, darkened place to sleep at night. If something should get through your good care and defenses, and you see signs of illness, there are places to go for help. Tahseen, your laboratory is an important resource. What are the options for getting help for sick chickens?

>> I want to mention one thing. If you start to have death losses in your flock, don't wait. Very important to get diagnosis, early diagnosis will minimize the death losses, and some diseases are treatable. So when you start to lose one bird, then another tomorrow, please don't wait until you lose 50% of the flock. Act quickly. There are several options to get a correct diagnosis. You may contact an experienced veterinarian, and contact the veterinarian diagnostic lab in your state, which usually can do

additional laboratory testing to confirm the diagnosis of disease and we mentioned that often, symptoms are similar, not specific, so additional laboratory tests are really important to confirm the diagnosis of certain diseases and the laboratory in your state can do that for you. When you have high mortality, if it's alarming, especially within a short period of time, very important to tell the authorities in the state, state veterinarians, about this. This could be a contagious disease. The earlier we have, the more likely we can stop it from spreading. Other options, contact county or university services, they can also help you with that.

>> Thank you, Dr. Martin and Dr. Aziz. I will conclude by -- APHIS developed a library of check lists with recommendations. We encourage you to visit the website to view and download these materials. All the check lists are available in multiple languages, including Spanish, Tagalog, Vietnamese. We encourage you to visit the Defend Your Flock website, to find lots of other free tools, including recordings of prior webinars, and other resources. APHIS created social media content to help promote biosecurity. They're available in English and Spanish, we hope you will share these on Facebook and other social media channels to be sure everyone is using biosecurity every day, every time.

No matter what the size of your flock. Be sure to check out more helpful information on our social media channel. This presentation along with answers to your questions will be available for download from the Defend Your Flock website, shortly. Be sure to follow Defend Your Flock on Facebook and Twitter to be notified when the presentation is available. Use the hashtag, Defend Your Flock, when sharing or posting information to help spread the word. On behalf of APHIS, thank you, Dr. Martin, and Dr. Aziz, for sharing your valuable insights and knowledge today. Let's keep our poultry healthy together.