

# Avian\_Influenza\_and\_Biosecurity

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## SPEAKERS

Iowa State University Extension and Outreach, Christa Hartsook, Dr. Yuko Sato, Olivia Hanlon

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### C Christa Hartsook 00:15

Hello, and welcome to the Small Farms Podcast, a production of the Small Farms Program at Iowa State University Extension and Outreach. Our podcast covers the opportunities and challenges associated with rural life.

### O Olivia Hanlon 00:28

In this episode I visit with Dr. Yuko Sato, Associate Professor at Iowa State University's College of Veterinary Medicine. Today we are talking about Avian Influenza in biosecurity. I'm Olivia Hanlon, Small Farms Education Extension Specialist, and we hope you enjoy the show. Yuko, welcome. We're glad to have you joining us today.

### D Dr. Yuko Sato 00:48

Thank you. Thanks for having me, Olivia.

### O Olivia Hanlon 00:50

Yuko, this is your first time on our podcast, so why don't we start with you telling us a little bit about yourself and what your role is here at Iowa State.

### D Dr. Yuko Sato 00:58

So I am a Poultry Extension Veterinarian and the Diagnostic Pathologist at the Iowa State University College of Vet Med. And my role is basically to provide outreach to both commercial and non commercial poultry producers in the industry. And that's mostly through diagnostic

services provided by the Veterinary Diagnostic Lab. I also do field investigations and consultations over the phone or email or in person. And I also hold extension events regarding poultry.

**O** Olivia Hanlon 01:27

Awesome. Well, we're very glad to have you with us today. Why don't we start with talking about the basics here? Why exactly is Avian Influenza?

**D** Dr. Yuko Sato 01:36

So Avian Influenza is an infectious virus. It affects just all about poultry and other birds. It's caused by an influenza virus called a Type A Influenza Virus. And it's in a broad family of a virus called orthomyxovirus. There's two different types or groups of this virus based on its ability to create disease. So there's Low Path Avian Influenza, which is LPAI that you can see, and then that usually causes a mild illness, usually a mild respiratory sign, and you can find that LPAI is present in wild waterfowl without showing any clinical signs. And then the one we're concerned about right now is HPAI or Highly Pathogenic Avian Influenza. This spreads rapidly and causes a high death rate in chickens and turkeys. So again, we're concerned about HPAI.

**O** Olivia Hanlon 02:23

Okay, so if people have got birds, what are some signs that they should watch out for that would likely indicate Avian Influenza?

**D** Dr. Yuko Sato 02:32

So since Avian Influenza is a respiratory virus, so think about kind of like a COVID-19 virus, so it can cause symptoms such as coughing, sneezing, you can have some nasal discharge, you can have birds with swollen sinuses, but I guess with high path AI, a red flag will be a sudden increase in death rate, which we call mortality. Especially if you don't have a really good reason why a group of birds or that bird died, that's a huge red flag. And some of the other signs to look for include diarrhea, could have birds or neurologic, you can see birds are depressed or lethargic, kind of really tired looking. You can have birds that are huddling because they're cold in the flock setting, you can see a drop in feed or water consumption and also a drop in egg production as well too.

**O** Olivia Hanlon 03:18

Okay, that was a good analogy for us there, Yuko. Kind of like COVID-19 for us humans. I feel like that kind of puts it in a good perspective for what it looks like and how it can spread. On that note, how is Avian Influenza spread?

**D** Dr. Yuko Sato 03:20

Dr. Yuko Sato 03:20

Yep. So Avian Influenza is primarily spread through direct contact between infected birds and healthy birds, and also indirectly. So if you have equipment or any other materials, such as boots, or clothing, or any other vehicles that are contaminated with the virus, pretty much anything that's contaminated with the infected birds can spread that virus. The virus kind of replicates, so it kind of reproduces in the birds feces and secretions that are coming out. So any kind of respiratory droplets, whether that's from the nose or the mouth, or anything like that could spread it. So really, in a nutshell, it's kind of like preventing against COVID-19. So anything, infected people infected birds, pretty much the same thing.

Olivia Hanlon 03:31

Okay, so if folks do have birds, and they're suspecting that they may have Avian Influenza on their farm, what should they do once they've identified their problematic birds?

Dr. Yuko Sato 04:04

That's a great question. So if you suspect HPAI, your first job is to contact the State Veterinarian or the USDA officials before any actions are taken. I know it's really intimidating, and there's a lot of numbers to remember. But luckily, there is a toolkit, it's called an HPAI toolkit that's provided in collaboration with the Iowa Poultry Association and the Iowa Department of Agriculture. And it's got numbers that you call during the office hours and the numbers that you call after hours. So depending on the timeframe that you're suspecting, don't hesitate to call any of these numbers. And again, number two is If you have a suspect potential that you might be dealing with something like that, the other part is to isolate yourself so you can limit the spread of this potential disease.

Olivia Hanlon 05:09

Okay, very good. And we will put a link to that toolkit with all of those important numbers in the show notes here so that you all can reach that. Moving on, how can we prevent the spread of foreign diseases such as Avian Influenza?

Dr. Yuko Sato 05:24

So the buzzword here is biosecurity. So the best thing, and the best line of defense is that small flock owners should strengthen their biosecurity practices. And the easiest way I have to explain that is to keep the outside out and keep the inside in. And so basically, if you find dead birds on your farm, whether that's a wild bird that flew out of the sky, or if you see birds on your farm that suddenly die, or anything that looks like HPAI, even as much as your chicken looked at you weird today, and all of a sudden, it's coughing, don't wait to call. So early detection really is the key to controlling an outbreak situation.

Olivia Hanlon 06:03

So speaking of the buzzword biosecurity, good biosecurity is something that we should practice

So speaking of the buzzword biosecurity, good biosecurity is something that we should practice all the time, not just when we are worried about things like Avian Influenza. What does good biosecurity really look like on a large or small scale for us, Yuko?

**D** Dr. Yuko Sato 06:18

Great. And this is hard because biosecurity as a concept is really, there's two ways I would describe it. It's intimidating and it's overwhelming. So at the end of the day, good, biosecurity is not a cookie cutter thing, but you need the people who actually practice that biosecurity and a plan to execute it right. But at the end of the day, you can have a really complicated plan, but it has to make sense to you. So it has to be something that you can do and keep doing. So I'll give a couple examples. It could be anything from let's say limiting some foot traffic onto your farm, as simple as maybe having a change of boots that are designated for your farm, clothing, or coveralls so you control your birds. If you have something like skid loaders and stuff like that don't borrow from your neighbors have your own. And if you have to use something that's borrowed, you have to clean and disinfect, wash it down, scrub off all the dirt and manure from it. And one big thing I stress out now is if you are avid hunters, if you're going out to go hunting outside in the wild, make sure you take a good shower, wash your hands, change your clothes, change your boots before exposing them to your own birds. By like mnemonics, so a good trick to remember if you don't remember anything about biosecurity is to remember the acronym TIPS. So that's Traffic control, Isolation, Pest control, and Sanitation. So if you have the biosecurity TIPS under control, you're good to go.

**O** Olivia Hanlon 07:45

Okay, so that sounds like one good tip to remember about our biosecurity. Yuko, if you had to choose one thing that everyone took away from this podcast, what would be the most important thing that you would pick out?

**D** Dr. Yuko Sato 07:57

Well, there's a couple of good resources out there that would be helpful to you. So the HPAI toolkit that I talked about will be great. If you're looking to spread information that's like really quick and brief, there's a couple of messages through the ISU Extension Twitter and Facebook messages. And if you have any questions, let's say you're in like on different parts of Iowa, that's pretty far away from everybody else. And you're like, gosh, I don't really know any chicken vets that can take a look at my backyard chickens. If you go to the toolkit website for Iowa poultry, there's actually a bunch of veterinarians that myself and my colleague Dr. Moe had trained across the state of Iowa. These are veterinarians who are trained and are willing to see backyard clients. There's a whole bunch of lists of people and the maps of that located, it's all on that website. Additionally, you can also reach out to your ISU Extension agent in your region, and they will be happy to guide you to those resources.

**O** Olivia Hanlon 08:54

Absolutely. Yuko, you made a great point there. Backyard birds, what is the risk look like for folks who have backyard birds? And should they still be practicing those biosecurity practices

that you mentioned?

**D** Dr. Yuko Sato 09:06

Sure. So the virus unfortunately does not read a book. It would be a lot easier if they did, but it does not discriminate what type of bird they are, or how many birds are on your property. And if you look at the radar right now, so there's this website called Bird Cast. And it actually tracks the number of birds migrating across the whole country at real time, And there's a lot of wildbird activity out there. And this is why I'm not surprised that we're having these detections and also in backyard poultry, where they're much more connected to the outside world. So yeah, even if you're a small flock producer, you are not safe for the virus, so definitely keep vigilant on the biosecurity keep up on it, and you're doing your part as a good neighbor to protect yourself but also your neighbors as well.

**O** Olivia Hanlon 09:54

Alright, Yuko, but where should people look for more information either on Avian Influenza or on biosecurity. I know you mentioned a couple good resources earlier, but are there any more that we should note here?

**D** Dr. Yuko Sato 10:06

Yep, Yep, definitely. So there's actually a website through Iowa State called Center of Food Security and Public Health. They have a lot of information about foreign animal diseases. And they've got a couple of nice one pager handouts that talk about just broadly biosecurity in general for poultry. They also have like a little checklist to look at, you know, green, yellow, and red on how much risk you have as far as what are your preparedness levels for biosecurity. In addition, if you're looking for broad ideas of how to come up with a biosecurity plan, the Animal Plant and Health services APHIS, they have a website called Defend the Flock. And they have some key videos and a couple of guidelines and coming up with different biosecurity protocols that you can practice on your farm. There's tiny little one pager things that are very simple to follow. So those are great resources to have.


**O** Olivia Hanlon 10:59

Okay, great. And I will go ahead and link those in the show notes as well as your HPAI toolkit. Yuko, is there anything that we didn't cover today that you'd like to add here?


**D** Dr. Yuko Sato 11:09

I just want people to be aware there is a lot of information online, and sometimes it's not always accurate. So you want to make sure you're reading the information from trustworthy websites. I assume extension will be a great place to start. I also want to make sure it's clear that I know I've made a lot of references to COVID-19 but HPAI is not COVID it's not the same virus. It's not a public health issue. And these poultry products are safe to eat because there's a

lot of information that talks about bird flu is dangerous for people and that's not sick you know people cannot get sick from eating poultry products and cooking eggs and poultry products will kill the virus along with other things that are concerned for food safety like salmonella. And and I just wanted to thank you Olivia and I wanted to thank our small flock producers for doing their part to keep our birds in Iowa safe.

 Olivia Hanlon 11:59

Awesome. Well you go we really appreciate you joining us today. It was great to have you and we look forward to having you back on in the future.

 Dr. Yuko Sato 12:07

Great thank you very much, Olivia.

 Iowa State University Extension and Outreach 12:08

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