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. In this episode, I visit with Adam Janke, wildlife Extension Program Specialist at Iowa State University. Today we are talking about deer. I'm Christa Hartsook, small farms program coordinator, and we hope you enjoy the show. Adam, welcome. Thanks for being back on.

Yeah, thanks for having me.

We're here to talk today about deer. How is the overall population doing in Iowa?

Deer are doing well in Iowa. I was just looking at some survey numbers that the DNR puts out every year and all indications are that deer populations are stable or growing depending on where you are in the state and what your yard? Or what's your farm looks like, I suppose.

Okay, perfect. Adam, you hear about chronic wasting disease in deer or CWD. Is this something that has been found in Iowa?
Adam Janke  01:19
Yeah, chronic wasting disease has been found in deer in Iowa. We first found it in a captive facility, so those are not wild deer, those are just farm deer. And that was back in 2012. And then, unrelated to that captive facility, we found it in wild deer in the northeastern corner of the state. And the first time we found that was in 2013. And that was in Allamakee County. And then every year since then, the DNR has been testing deer from all across the state. And they found Chronic Wasting Disease and wild deer only in Allamakee County, and then in Clayton County, both in the very far northeastern corner of the state, adjacent to areas in Wisconsin that we know has had chronic wasting disease in wild deer for a while.

Christa Hartsook  02:15
Okay. Talk to me a little bit about what Chronic Wasting Disease is? And if that's the same thing as EHD that we hear a lot about too.

Adam Janke  02:24
Sure. Yeah. So that's a really common question we get I hear people say, EHD and CWD, that's the same thing, right? And the answer is unequivocally No. They're very different diseases. In every form in the way that they affect the deer in the way that they're, they spread the concerns that we have over the respective diseases and a whole suite of other things. EHD and it's also commonly called blue tongue. They're both EHD and blue tongue are both in the same classes of diseases. and that's Epizootic Hemorrhagic Disease, it's a virus or a viral disease. It can essentially be found anywhere in Iowa, it's particularly prevalent, or we see the most problems associated with that disease in late summer, particularly in dry years. And that's just because the disease is harbored in the environment in it's transmitted by a biting Midge or a biting fly. And so the Midge bites the deer and transmits the disease to the deer and then the deer eventually develop symptoms and, and die relatively quickly it happens and that's why we see these big die offs in late summer, especially in dry years. And that's really patchy that could be in northwestern Iowa this year. It could be in southern Iowa next year. And you know, there's no real pattern. And that kind of stuff is is always going on in deer populations. That's kind of one of the just the natural processes. Predation, you know, things are always eating deer. Deer are always getting harvested or hit on the road or and they're always dying, because of some diseases and EHD and bluetongue are two examples. Chronic Wasting Disease or CWD is in a totally different arena. It doesn't have a patchy distribution. If it had a patchy distribution, we'd be worried because that would mean some artificial means is spreading it across the landscape. Sure, it spreads much more slowly, and it is 100% lethal as far as we know when an animal gets CWD. Again, we've said it but CWD stands for chronic wasting disease and it's an A class of diseases that are called TSEs. This is alphabet soup here today sorry. So TSEs are Transmissible Spongiform Encephalopathies so we see scabby in sheep. Crutchfield Jakobs disease in humans, Mad Cow Disease in cows, in bovine and then Chronic Wasting Disease and there's some other ones, I think there's one affecting mink and other TSEs. They are all similar in that they are formed by a prion in a malformed prion. So prions are a type of protein, and they can be occur in a form that isn't natural. And we don't know the details of what natural prions and misfolded prions do in animals. But we know that
as misfolded prions associated with these TSEs accumulate, they start to cause neurological symptoms. So all that to get back to what CWD stands for chronic meaning, once they have it, it's not going anywhere, wasting meaning that they start to waste away. And the wasting away is driven by the degradation, essentially, the central nervous system, including forming holes in the brain tissue.

Christa Hartsook 06:14
Okay, so, long explanation, but a good one! Adam, I appreciate that!

Adam Janke 06:18
I hope I didn't lose you at all. There's so much alphabet soup going on there. But

Christa Hartsook 06:24
But it's good to know it's good to know! Adam, let's say we've got some listeners out there with small farms or acreages that have animals of their own, you know, do they need to be concerned about a spread to livestock?

Adam Janke 06:36
That's a good question. There's no evidence for Chronic Wasting Disease naturally transmitting to any livestock or humans. They've tested that. And what they find is, there's this strong what they call species barrier. And so CWD chronic wasting disease affects members of the deer family. So deer, whitetail deer, mule deer, elk, and some others, and there's no evidence to suggest that livestock could get it. Or people could get it from either coming in contact with CWD positive tissues, or residual prions that may be retained in the soil. So the answer to that question is no. We don't have any evidence for concern with livestock.

Christa Hartsook 07:28
Okay, perfect. Adam, how would you go about detecting CWD in a deer population?

Adam Janke 07:33
Yeah, so it's not easy, and people often see sick deer and they want to, they kind of jump to the conclusion that CWD or EHD, or anything, but remember, you know, deer get set from lots of stuff. Just like humans, just like any animal, wild or domestic. And so, diagnosing CWD actually has to be done in a laboratory, and the way we can do is by, you know, looking through microscopes at tissue in the brain, or what we do, most commonly is from lymph nodes, in that we can look for the presence of those of the disease in the animals. So, so seeing a sick deer
definitely doesn't suggest CWD it could be a whole bunch of things. And so we do testing on on
dead deer, or there is work ongoing to develop tests that could be done on live animals, but
right now, every all the testing that we're doing is with dead deer.

Christa Hartsook  08:35
Okay. I'm assuming Adam with something, you know, as prevalent as CWD, could eventually be
or widespread, I guess maybe would be a better term. You know, there's a lot of research going
on. Can you talk a little bit about that?

Adam Janke  08:47
Yeah, there is a lot of research. We're really trying to understand this disease. Right now we're
lucky in Iowa, To only have it in those two counties, Allamakee and Clayton County. In the first
sort of research thing that we're doing is monitoring, trying to keep our finger on where this
disease is to let hunters and other folks know where they should consider getting their animals
tested. So there's lots of that going on. And then there's a whole gradient of other experiments
and research going on. Everything from really detailed laboratory studies, understanding how
this disease may be able to transmit to other animals or what barriers exist, how strong those
barriers are. We're interested in understanding just how the deer move across the landscape.
So for example, in Iowa, we of course, have areas with lots of forest and then we have areas
with very little forest, and how deer move across those landscapes could help us understand
how a disease like this one or other diseases can potentially spread. And so there's work like
that going on. There's also research on treatments and diagnoses and all sorts of things. Really
trying to understand this disease. This disease wasn't even on our radar screen until the late
60s. And then we've tried to learn a lot about it since then, and a lot of really smart folks are
working on this issue. That's, that's how the system should work. And so.

Christa Hartsook  10:21
Adam, we're coming into the fall season, you know, when we'll soon have bow hunters out
there, we'll come into the winter when we've got shotgun season, should hunters be concerned.

Adam Janke  10:31
I think everybody should know what CWD is and what we're doing about it, and what they can
do about it. If they harvested deer. Hunters throughout the majority that state, I would say just
stay tuned. Listen to the results of the sampling efforts that the DNR is doing. And there's
always information about that. And I have information on my website that I update about that
regularly. And so be aware of where the positive deer have been tested. And then for hunters in
northeastern Iowa where we do have the Chronic Wasting Disease in wild deer right now it is
worthwhile to get deer tested. I mentioned this whole species barrier thing and we don't have
any evidence to suggest that you can contract TSE from consuming a CWD positive deer, but
the CDC does actually say to avoid consumption of meat from CWD positive deer. This may be
a worthwhile time and this is a bit of a distraction again, but I don't want people to confuse mad
cow and CWD. Remember, Mad Cow which was a transmissible Spongiform Encephalopathy
was scary stuff. Because if that got into the food system, we were all in trouble, right? CWD is very different from Mad Cow. They are the same class of disease, but it doesn't transmit to other species nearly as well as Mad Cow does. So all that to say the CWD still says there's too much uncertainty about prions to go about eating CWD positive deer. So it's worthwhile to work with the DNR or the vet diagnostic laboratory or other laboratories around the country to get a lymph node tested from a deer in the chute in northeastern Iowa.

Christa Hartsook 12:18
Okay, perfect. Are there other preventative measures that hunters should take, Adam, just in general?

Adam Janke 12:25
Yeah, that's a great question. We, you know, we kind of all have a role to play. And of course, the easiest one is vigilance. It's always worthwhile if you see a really sick symptomatic deer to notify a Conservation Officer and have them tested. So being vigilant paying attention is important. The other thing is we haven't talked about how CWD spreads among deer. And what we know is it spreads in two ways. One way is they come in direct contact with bodily fluids. And so for example, deer often muzzle one another, it's part of their social behavior and things. And so when they're muzzling one another exchanging saliva obviously, and that's a way that we think CWD is spreading from one animal to another. And then another route is what we call environmental contamination. And so that's where they're feeding in a certain spot, and their saliva is accumulating, or they're deprecating or urinating in a spot. And we know there to be prions, potentially deposited in that way. And those prions actually persist in the environment for a period of time, okay, multiple years actually. And so anytime deer concentrate really high in one area, there's increased probability of either direct transmission, or environmental transmission. So all that to say, the way that we're looking to manage CWD, or at least minimize potential transmission is to reduce opportunities for deer to get to concentrate on certain areas. In a really common way, well intended people will feed deer, and with corn or hay or whatever, through the winter, or whatever. And again, the intentions are always very pure, but we're worried that those artificial concentrations of deer are going to make this disease potentially spread quicker. So we're encouraging people to minimize practices that concentrated deer, and so mineral supplementation in artificial feeding and baiting, particularly in areas where there CWD or potential for CWD is a practice that we probably need to get away from here in Iowa.

Christa Hartsook 14:45
Okay. Good to know. Adam, are there other diseases or concerns that we need to think about or worry about with our deer population?

Adam Janke 14:53
I don't know if there's any diseases or things to be concerned about. Our deer are doing pretty Well, and like I said, diseases are a natural process. The reason we are interested in really having close attention to CWD is because of how unique it is and how lethal it is in the potential
paying close attention to CWD is because of how unique it is and how lethal it is in the potential concerns about human and livestock and all the uncertainties that come with TSEs. Other diseases come and go. And I don't think there's anything major to worry about.

Christa Hartsook  15:27
Adam, let's say I want to learn more about CWD in general, or maybe you know, how it's been spreading across the United States, where can I go to learn more?

Adam Janke  15:35
Yeah, there's a number of resources, you can start at my website, I'll plug that you can get there a few ways. The easiest way is just to type wildlife.extension.iastate.edu. And that will direct you to my website, or you can type it into Google. And I've got some information there about the current national distribution of chronic wasting disease, and also kind of what we know about Iowa's CWD, and things so and then there's also there's a CWD alliance that has information from a lot of state wildlife resource agencies and federal disease researchers. CDC has information. There's a lot of information out there. And if it's from a government source or something like that it's trustworthy. For all the trust worthy sources. Of course, there's lots of less trustworthy sources. I'd stick. I'd stick to the wildlife agencies, they really kind of know what's going on with this stuff.

Christa Hartsook  16:35
Okay. Adam, is there anything else we need to visit about today?

Adam Janke  16:39
Oh, well, I don't know. How much time do you have? Haha! No, I'm just kidding. No. I think that really covers it. I appreciate the opportunity to talk about this stuff. It's a new thing here in Iowa. We're all learning about it together and we're all going to address this challenge together. It's it's nothing to quit hunting deer over. It's nothing to quit eating deer over. It's just something to be aware of and to think about and be vigilant.

Christa Hartsook  17:05
Okay. I think those are good reminders for everybody. Thanks so much for being on the show. Thanks for having me.