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 Andy Kellner, Wildlife Biologist with the Iowa Department of Natural Resources. Today we are talking about deer depredation and fall trends. I'm Olivia Hanlon, Small Farms Education Extension Specialist, and we hope you enjoy the show. Welcome back. We're glad to have you joining us today.

Yes, thank you for having me back. I uh, I'm excited about some of the changes in the weather, although I see we're supposed to get up warm here for one more stint, but it might actually turn into fall one of these days.

I know it sure would be nice if it would, huh.

Yeah!
Andy you've been on before, but as always, it's nice to have a little bit of a reminder. So why don't we start with who you are and what you do with your role and what the DNR.

Andy: As you mentioned, I'm a Wildlife Biologist with the Department of Natural Resources. I work in our Wildlife Bureau, and specifically, I work with our depredation program. So we have staff, there are six of us across the state that work with private landowners or farmers that are experiencing crop damages or economic loss from wildlife specifically, or nuisance wildlife issues. Trying to get those folks the right information to either handle the situation themselves or reach out for additional assistance if they need to, or offer information on questions that come up. So we're kind of a representatives of the Wildlife Bureau, when conflict comes around.

Olivia: Awesome. And today, we're talking deer depredation, so why don't we get started here. It's about that time of year where we start to see some increased rubbing out there if we haven't already seen a little bit, what are some of the signs that we might have some rubbing going on from those bucks?

Andy: Sure, so as bucks go throughout the summer, they're growing those antlers, right? And during the summer, when you see them, those antlers look really velvety, we call that outside layer as it's growing velvet. Really long stretch there for that name. (Laughter) And so, towards the end of August, what happens is those antlers have reached their growth for the year and the velvet is going to start to peel off essentially. And so the bucks will start rubbing and actually doing some of that behavior first to help get that velvet all the way off and try to remove it from the antlers. It might be a little bit itchy or who knows what all the heck's going on there. But they work on it to get it off. Now later in the year, they're rubbing activity will be more related to territory marking and the mating season and that stuff. But right now, we're still kind of seeing just the transition stage going from getting rid of all the velvet to actually marking territory. And there's kind of two different ways that they're doing this. There's scrapes and there's rubs. So a scrape is when maybe on branches that are overhanging a spot, you'll see they're broken off, and then you'll see an area underneath those branches, where the vegetation or grass has been kind of scraped away. It's almost like a little bear spot. And what the bucks are doing here is they're actually, they've got sent lands up at the base of their antlers, and they're expressing them or maybe even using their lips and other things up there on those branches, and then at the same time, they're robust about this, they'll urinate and scrape on the ground as part of that scent marking. A lot of times along the same kind of trail or line that we'd see those scrapes, then we'll also see rubs begin to form on usually smaller trees or soft wooded trees, but it can be on a lot of different things. And again, they're expressing those scent clans up against the tree and then using their antlers to rub it into the tree and really mark it and make it smell like them. We're not very good at smelling ourselves.
But when another deer comes along into that area, they're going to recognize Oh, hey, you know this, this gentleman was here too. So it's just really a way of kind of marking out the territories and letting them know that they're active and ready to go.

Olivia Hanlon 04:22
Okay. Andy, this sounds like part of nature, right? It's all natural, especially when it's happening to trees, maybe out in the forest or something that's not in an area of our concern, but what would be some reasons that maybe the rubbing would be of concern to us?

Andy Kellner 04:38
Yeah, it's exciting. If you're a bow hunter or a nature lover out for a hike in the woods, it's a really fun thing to learn about this new thing that animals are well not new thing, new to us, because we don't do it. This thing that animals are doing out there, right. But where it gets frustrating is let's say you're planting a windbreak or let's say you're starting a new apple orchard or something like that, that rubbing activity can be significant enough on the trunk of the tree that it can actually work to girdle that tree by getting through that outer bark layer until that cambium layer, you're going to halt some of that flow of water and nutrients going up and down the tree. And it could result in that tree dying. Maybe it'll make it through a couple of years of it and kind of survive. But where a rub has occurred, if that same buck is around next year or another buck smells that and wants to mark over it, there's a good chance that it's going to get marked again. So it might make it through one year and be able to recoup and baby it along. But if nothing has stopped to prevent that from happening, it could happen again. And definitely take the tree out. An example that there's a wildlife area I worked on, there was a yellow wood post had been painted yellow, that had been put in to mark where a gas pipeline had gone through. And it was just amazing to see because it was right on this trail way there, keeping that gas pipeline clear and it cut this timber into two. So deer went along that all the time and year after year, multiple deer would rub on this on this wood post. And it got to the point where it was down to an hourglass shape just from that continent year after year rubbing activity. So they're not going to let it up just because they marked it once they're going to do it again.

Olivia Hanlon 06:21
For sure. Andy, if we do have some of those newer trees that we've got out there, or some fruit trees or something like that, that we would really prefer the deer not to be rubbing on, are there some ways to deter that from happening?

Andy Kellner 06:34
Yeah, you know, one of the big things, and I mean I say this for gardens or or any of these sorts of situations, protecting the tree by keeping whatever offending animal is out or not giving it access to that tree is huge. So protecting that tree from the get go is really important. Depending on how many trees or how big of an area we're looking at, that might look like a few different things. But we really want to boil it down to we don't want that deer to be able to
interact with the trunk of the tree. So thinking ahead is important. If you're doing a planting with multiple trees, but not an absolute huge area, those tree tubes can be really beneficial. So they can help not only with the growth and giving it some support and hiding it from browse that first couple of years. But it can also kind of just out of sight out of mind, take it out of that availability for the buck to come up and rub on it if it has some sort of tube around it. Now, I have seen situations where a buck is just adamant that he's going to rub on that particular tree and even take off with his antlers or shred apart a tree tube. It's, it's not as common. And I think you'd still protect most of them that way. So you're at least protecting the majority of stuff. If it's a few trees, but not too many. You might even want to think about something like woven wire fencing coming out in a circle, or a square around the tree, it's maybe use three or four T posts and come out just because then if that deer can't easily get up to the tree, then it's going to find something else. It's going to keep moving. It's that easy access that we want to take away. I've seen folks just hang burlap around the outside around a tree and it's worked or I've seen creative use of pallets to piled up so you make a square around the tree with pallets. So that works if you just have a few ornamentals you want to work out. Otherwise fencing is an option for this to. The mindset of bucks that are getting into the mating season is a little bit different than that maybe a feeding deer. But fencing is proven to be very effective in the long run. And you can go the route of high fencing depending on the size of the area, if you want to do an eight foot fence, or you can do there's a few different combinations of electric fencing. And there's some companies around, like even Iowa based premiere one fencing that they've got some specific setups of electric fence setups for deer specifically, and some good ideas as far as what the layout would look like, that might be worth it. The high fence can be an investment. If you're doing something like an orchard and you're looking at long term, you know, sustainability of this project and you know, you're in an area with deer, your long timber corridor and river corridors. The high fence will actually pay for itself at some point it might be about a decade out. So I would strongly consider what sort of exclusion and what scale of exclusion you can really do.

Olivia Hanlon 09:37
Okay, that makes a lot of sense, Andy. Is there anything else that we need to talk about in relation to rubbing before we move on here?

Andy Kellner 09:45
Oh, as you pointed out, it really is a natural part of what their system is designed to do. It's how they operate. It's something where depending on the setup and what your arrangement is, if you can utilize hunters in that sort of set up that would be great. If you want to combine any sort of exclusion with hazing or harassment, that could work to just recognize that it is a different ballgame than something just coming in and utilizing as a food source where it's kind of a more, more or less, not strongly motivated, but 'I'm walking through the area and I'm going to eat.' This as more of a 'my hormones are racing. I'm really feeling strongly about this, I gotta mark my section and, and keep other people out or let those don't know I'm here.' So it's a little different that way.

Olivia Hanlon 10:32
Okay. Andy, like we said, rubbing is one of those things that happens in the fall, but what else
Okay. Andy, like we said, rubbing is one of those things that happens in the fall, but what else should we be talking about in terms of fall and deer, maybe some deer movement, things like that.

Andy Kellner 10:43

I love this time of year, it's my favorite. There's so many things that really changed that I think people can take for granted. I think we enjoy seeing, 'Oh, look, the leaves they're changing, or hey, the the menu at this restaurant is now full of pumpkin spice.' So we see those sorts of things. But for these critters that are out there living in these habits, and the season is starting to change, their whole world really needs to shift. And so I love watching that. So during the course of fall and winter, we've got the temperature changing and weather patterns are changing, the vast majority of plants are going dormant. So green food sources are changing or shifting to new places. You've got the deer mating season going on. As far as other animals are concerned, you've got fall migrations that are going to start taking place, hunters are starting to get out into the field, whether that squirrel hunters already out there in September in the timber or pheasant hunters and end of October, November out in the prairies, that's going to move animals around quite a bit. So there's just all these things that start moving animals around. And then on top of it, you throw agriculture and all of the acres and acres of land that's going from, you know, 6-8 foot tall corn down to nothing. That's really shifting things. And not just a little bit, we routinely see deer move 8-12 miles. And we've even seen some studies where some other states have showed us information of extreme deer movements. While they're more rare, there's been instances of deer that have had GPS collars on them, so tracking them, move over 60 miles just during the course of the season. So they can get moved pretty substantially. So that's just something that I think is important to remember that sometimes we get angry with a nuisance wildlife that's in the area, but we have to understand that things are changing for them too. And the deer we see in December might not be the same deer that we're seeing out there in July that that we're mad at for eating our crops. And in that relates to hunting and stuff too. If you're going to use that as a management tool, being smart about when you're hunting and when you're putting pressure on things is, is important. Another thing that's really interesting for deer and I, again, I love this I don't mean to go on too long, male deer will largely stay in a small bachelor group during the summer. As these things in the false start changing. And as their hormones are starting to change and getting closer to the mating season, we see those dynamics shift within that small group and they'll become more independent from each other and really ranged out so they might just have a small area one farm they're staying on in July, but then come October that deer might be traveling a couple miles in an area looking for mating opportunities. And the dynamic on the antlerless deer changes to it's not just the bucks. So again, things are changing in the setting, so that's going to change patterns. But also does starting to prepare for the mating season too. They're kicking off the button bucks, the fawn male, fawn deer for that year, they're kicking them off and sending them off on their own. So as we get into October here in November, if you see a lone antlerless deer coming out by itself not really associated with anything else, chances are that's probably a button book. It's probably not an adult doe it's probably actually a young fawn that's a male deer, that's been kicked off from its mother. So a lot of things are shifting there in the in the home of a deer during this time of year.

Olivia Hanlon 14:28

Yeah. Andy, you mentioned it a little bit, but fall is the time for various hunting seasons. So let's
Andy Kellner 14:42
No, that's a good observation. Iowa, I mean a lot of different states have different setups for different seasons, and Iowa is known for having kind of a lot of starts and stops. And one of the things here in Iowa is we really recognize hunting as the management tool for populations for deer in Iowa, and that's one of the reasons why there's different seasons broken up different ways. There are, if you just take, you know, counting every day where hunting of some sort of deer is available, there's 116 days of hunting opportunity for deer in Iowa just this year. So it's pretty expansive, that's a lot. It started here in mid September with the youth season, there'll be the archery season starting October 1, there's early muzzleloader shot gun one, shotgun two, late muzzle, lots of choices. So it's really, there's a lot of fascinating things as far as psychology and, and also ecology that play into this and all these different seasons. But when you try to boil it down, any increase in harvest is within the first couple of days of a season opening up. And so by having some additional seasons and broken out the way we do, we tend to actually see an increase in harvest. Because there are parts of the state where we want to harvest more does to get that population into more of a steady, lower area that's a better balance for both agriculture and driving, and for the huntersm and for the people that enjoy seeing deer. It's a balancing act of of all of those different things. And so some places we want to harvest more does. There's areas of the state where the deer population has gone down significantly, and actually, in those areas, we're not encouraging doe harvest. And so each county has an antlerless quota of licenses available based on what we're seeing for those population trends. And I guess one of the things that I would point out in a small farm or a big farm scenario, whichever it is, is if you're having damage from deer during the growing season, they're coming out and eaten your crops, it's really important to think about which of these hunting seasons you're utilizing. If you're getting kids out there right now, or you have an archery hunter that's going to come out and you say, hey, shoot does before you think about shooting a buck, these early seasons stand a much higher chance of harvesting that local doe that raises fawns on the property, before she gets moved all over the place. So that's important as far as your crop damage goes. Now, at the same time, the shotgun seasons in December and in those other seasons are effective for landscape level management. And so they still have a big importance. But it might not be narrowed down to the farm unit specifically in what's going on there. That's a lot of things. But that's how I often see it tied in with my job with dealing with depredation in deer is looking at being smart about when we're hunting and how we're hunting the deer in utilizing the tools that are available, which is hunting in Iowa. Not to belabor the point. But with the population dynamics, looking at reproductive rates and mortality rates of deer and all of these things, we, in a given area, if you want the population to stay pretty steady from year to year, you're looking at harvesting between 20-30% of your local does every year. So if you have 10 in your section, harvesting two of those 10 does every year, will kind of keep your population steady. If you're not harvesting any does, what we're going to see is the population will double in about four years. So that's not necessarily the goal that we want. And it just shows the importance of how hunting plays into management of the population.

Olivia Hanlon 18:26
For sure, nd this was a great little preview, we get to talk with your coworker Tyler Harms here
For sure, we had a great little preview, we get to talk with your sometime regular name here in a few weeks, and we'll talk a little bit more about populations across the state, and limits, and things like that. But this was a great explanation of how that all fits into the general population and some of your depredation problems that you do see. Aside from deer, what other wildlife changes should we be on the lookout for this fall?

Andy Kellner 18:50
Yeah, well, and like I said, there's a lot of things that are going to change them behaviors as the season start getting cooler. You know, one thing that comes to mind specifically and it relates back to when you and I were discussing stuff with geese earlier this year, be be very aware that with the changing season, we're going to be seeing fall migrations of waterfowl, you know, really pick up as well as other birds here in the next month. And that's something with this year, with the increased awareness of avian influenza. It's a good time with anybody with those small flocks, to really, you know, protect that flock if you need to keep them in for a period. Take down the bird feeder so you're not attracting other birds to the area. Utilize all those biosecurity things that you can on the farm. I think that's a good time to be aware of it and I'm not trying to be alarmist But of all the things going on and fall that I love and enjoy. That's something that we should be paying attention to this year too.

Olivia Hanlon 19:44
Okay. Very good. Andy, if there are people wanting more information on anything, which was a lot so that we covered today, or if they have any questions, where should they look or who should they reach out to?

Andy Kellner 19:55
Yeah, great question. And it may be a tip for future programs, we should get something less passionate about and then I won't talk so much. (Laughter)

Olivia Hanlon 20:04
(Laughter) But we enjoy talking about the wealth of knowledge that you have, Andy.

Andy Kellner 20:08
I love being able to talk about this stuff. I really do enjoy it and appreciate it. And people can certainly reach out and contact me. My email address is andrew.kellner@dnr.iowa.gov and I can give you that for the show notes. We also have a page on the depredation website that'll have a map of our current contacts in the depredation program. And that would help funnel anything to the local resource for anybody that has questions. And honestly, I would throw a shout out to the Iowa State Extension offices in your county too. They can be a handy resource we work with Dr. Adam Janke quite often there with Iowa State Extension services and he has some good material on his website and available to those offices too.
Absolutely. Dr. Janke is one of our favorites, Andy so yes, we have to give him credit where credit is due. Is there anything that we didn't get covered today that you want to add here?

Andy Kellner 21:02
Alright, I think I've probably covered enough for today but enjoy the pumpkin spice and the changing fall colors and but just take a little bit to enjoy what the wildlife are doing as well and how they're adapted to the changing seasons.

Olivia Hanlon 21:16
Absolutely. Thank you, Andy, for joining us and we look forward to having you back in the future.

Andy Kellner 21:20
Thank you.

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