

## Audio file

[Musk Thistle Weevil Roundup FINAL.mp3](#)

## Transcript

00:00:11

What?

00:00:11 Dana Zook

Welcome back to the Extension Experience podcast. I'm Dana Zook. Today I have a really fun episode for you. I am recording at the must Thistle control and we will round up being held in Jet Oklahoma which is centrally located in Alfalfa County in North Central Oklahoma.

00:00:29 Dana Zook

Must thistles were first documented in Oklahoma in the mid 1940s and then were later declared A noxious weed in Oklahoma in 1994? Currently, mussel is now present in every county of the state, so I came today to the roundup to learn a little bit more about.

00:00:49 Dana Zook

Thistle ID as well as the biological control of muscle.

00:00:55 Dana Zook

Here in the state of Oklahoma. But now I'd like to introduce you to Laura Goodman, who you've heard from before as well as talk to Aaron Metcalf, the educator hosting this meeting to tell you a little bit more. I hope you enjoy this segment. So now I'm with Laura Goodman she attended.

00:01:14 Dana Zook

Today to tell us all about thistles in our native range landscapes, Laura Goodman is our extension range management specialist at Oklahoma State University.

00:01:24 Dana Zook

So, Laura, tell us a little bit about thistles and why they pose such an issue for land owners in, OK.

00:01:30 Dr. Laura Goodman

Yeah. So we have a couple of invasive thistles that live here in the state and the invasive species that we have are not native to here and they have specific characteristics that allow them to spread pretty quickly. And so when you have a large stand of them, they can start to outcompete some of the other vegetation that you would naturally have.

00:01:51 Dr. Laura Goodman

You know, grasses and different broad leaf plants and so we don't worry too much about the native ones, but these non-native ones can grow in really thick pad.

00:02:00 Dana Zook

Which is we're kind of in a thick patch right now where we're collecting. And one of the issues is cattle don't eat them there. Was there any animals that really eat?

00:02:09 Dr. Laura Goodman

A Thistle. So there is some evidence that goats will eat them. There are cows that will eat the flowers. They're not going to eat the leaves because of course the leaves have a lot of spines and stuff. And so those.

00:02:20 Dr. Laura Goodman

Make them less desirable as a forage plant. Native pollinators that like to use the the native plants in particular, and so that's kind of why we choose to leave the the native thistles alone and they they don't grow to the same densities that are are invasive ones too.

00:02:37 Dana Zook

So in some instances, must thistles can be hard to differentiate between other Thistle types. What are some characteristics that set and must thistles specifically, apart from many others?

00:02:50 Dr. Laura Goodman

I definitely agree it's it can be really difficult to tell them apart. One of the things that Musk Thistle has that many of our other native.

00:02:58 Dr. Laura Goodman

Don't have is that they have a on the bottom side of the the leaf. There's no hair, so it's slick and shiny on both the top side and the bottom side of the leaf, and that's pretty dramatically different from our native thistles that tend to have quite a bit of hair on the bottom side of the leaves. At least we have other ones that have hair on both sides, but Musk Thistle does not.

00:03:18 Dr. Laura Goodman

The other thing about Musk Thistle is that once it's flowered, the flowers look pretty different. So.

00:03:23 Dr. Laura Goodman

The the other common name for Musk Thistle is called knotting Thistle, and so the flowers are really large on Musk Thistle and once they are mature they tend to droop over under their own weight and so Musk Thistle or nodding Thistle has these big sort of bowl shaped flowers that that tend to nod. And so that's another characteristic.

00:03:44 Dr. Laura Goodman

Once they're flowering.

00:03:46 Dana Zook

There are several other invasive thistles in Oklahoma, notably, one tell us a little.

00:03:52 Dr. Laura Goodman

Bit about that. Yeah. So the other one that I see most prevalently is called bull Thistle bull Thistle when it's a rosette when it's just the leaves it has like a kind of a leathery looking leaf. And there's not a lobing on that leaf. It's a big wide leaf.

00:04:08 Dr. Laura Goodman

And then as that plant grows and matures it, the lobes get pretty deep, kind of like a lobe on an oak leaf or something. And so those.

00:04:16 Dr. Laura Goodman

Those those leaves will get very, very lobed and then have very long spines at the ends of each of those lobes. Both this also gets very large Musk. This will can as well, but both this will probably win the prize as far as the biggest Thistle that we grow the flowers on it are more of like a old timey shaving brush shape where it's kind of.

00:04:36 Dr. Laura Goodman

It narrows like it has like a little what looks like a little handle at the bottom. That's the green part. Then it narrows and then kind of flares out where you have the purple petal, so the bull Thistle.

00:04:46 Dr. Laura Goodman

Well.

00:04:47 Dr. Laura Goodman

Another invasive, although not listed as a noxious weed in Oklahoma, so there's not any laws about it, but it is a fairly widespread invasive Thistle here.

00:04:57 Dana Zook

So I mentioned earlier that musclee is an invasive, noxious weed in Oklahoma. So it being given that term, what?

00:05:07 Dana Zook

Do you? Could you tell us a little bit about just simply what that means to Oklahoma land owners?

00:05:13 Dr. Laura Goodman

If a plant is labeled as noxious, that means that there's a law about.

00:05:18 Dr. Laura Goodman

Controlling the.

00:05:19 Dr. Laura Goodman

In Oklahoma, we have 3 thistles that are labeled as noxious. Noxious just means that there's a law about controlling these plants and so much. This is the most widespread Thistle that is noxious, and that means that if someone was to make a formal complaint to ODAF about that Thistle on a particular property, whether it's state.

00:05:40 Dr. Laura Goodman

Land or a?

00:05:40 Dr. Laura Goodman

That land there a letter would be sent to that land owner and they would be asked to come up with a plan of how they're going to control that plant on their property. One of the

options is using weevils so that that's a biological control at the insect. That very specifically prefers Musk Thistle.

00:06:01 Dr. Laura Goodman

And so you know, that's what we're doing today is helping land owners get.

00:06:05 Dr. Laura Goodman

These weevils so that they can start to control those plants on their land. You can do integrated control where you're using a herbicide and the weevils as well to get a little bit quicker control. But the Weevil does suffice as a control option as far as ODF is concerned.

00:06:22 Dana Zook

When we talk about herbicide control, if we're using the weevils.

00:06:26 Dana Zook

We need to be a little patient, right, Laura?

00:06:28

OK.

00:06:29 Dr. Laura Goodman

Yeah, the weevils do take time. It's particularly if you have a large stand of thistles, so generally we say if you have a lot of thistles, you're looking at 8-9 years before you might see a dramatic decline in those thistles. And so some folks choose to do an integrated approach where you're using both the herbicide and the weevils.

00:06:49 Dr. Laura Goodman

The key thing with doing an integrated approach is that you're not going to be spraying thistles in the spring. You're going to be leaving the thistles that germinate in the spring, but you would use a herbicide in the fall. So you you would spray rosettes that germinate in the.

00:07:04 Dr. Laura Goodman

All you're likely going to miss some if you're doing spot treatments, and so there'll be some there in the spring and those or some may germinate in the spring. Then you'll just leave those and allow the weevils to complete their life cycle before you do anything to those thistles that summer that you you could go in there later that summer and July or August or something.

00:07:24 Dr. Laura Goodman

By then, the flowers have already matured. The weevils have already done their thing, and you could go in there and and cut them if you brush hog them. Whatever you wanted to do to remove them at that point.

00:07:35 Dana Zook

So I I think of, I mean coming from Nebraska, we did the good old fashioned mechanical control, Laura, every summer we would take our spade and our feed sack and collect the blooms and put them in the feed sack and then just dig them up. And so that.

00:07:49 Dana Zook

Is.

00:07:50 Dana Zook

A good control form too.

00:07:52 Dr. Laura Goodman

Yeah.

00:07:52 Dr. Laura Goodman

No, definitely. I think it any way that you can stop the seed.

00:07:56 Dr. Laura Goodman

From spreading is is a viable control option, so if you only have a small number of them and or you or you have a lot of time, you can definitely remove the flowers. Sometimes they will re bloom if you cut the top part off. So like if you brush hogged or something before they before the seeds were mature.

00:08:13 Dr. Laura Goodman

Just be aware that you might want to go back out there and check and just see if they have started to regrow from the base of the plant. Sometimes they'll rebloom at a much shorter height, so just double check that you have accomplished that goal of keeping them from flowering.

00:08:26 Dana Zook

There are native thistles in Oklahoma that are not invasive, so tell us just a bit about those before we.

00:08:32 Dr. Laura Goodman

Close up, we have quite a few native thistles, the three most common, I would say, particularly for the western side of the state, would be WAVY leaf thistles, so that one has kind of a blue Gray color.

00:08:44 Dr. Laura Goodman

Colour looking leaf. The leaves have hair on the top and the bottom side and that's actually what gives them that kind of grayish tinge and then they have that shaving brush shaped flower, unlike the Musk Thistle. And so they are also typically a smaller Thistle, so they're not going to get real high like knee high is pretty common and it'd be pretty rare for them to get.

00:09:05 Dr. Laura Goodman

Up to your hip. So they're going to stay smaller than some of these other thistles that we have. They also tend to bloom a little bit later. So you're not going to see them blooming until.

00:09:13 Dr. Laura Goodman

Well, like middle of June sometime. So that's WAVY leaf. Then we also have tall Thistle so tall. Thistle gets big like a Musk Thistle, but it has a lot of white hair on the bottom side of the leaf, so if you flip the leaf over and you see a lot of white hair, probably the native Thistle, tall Thistle, tall Thistle also doesn't seem to have as much lobing on the leaves the leaves.

00:09:33 Dr. Laura Goodman

They're a little bit different shape, so those thistles are are used by quite a few pollinators, and so we try to leave those and they they're not going to create the same kind of dense stand of thistles like a Musk Thistle wood. They're going to just kind of be interspersed amongst all the other plants that are growing in your pasture.

00:09:50 Dr. Laura Goodman

The last one that we have, that's pretty common in Western Oklahoma, it's called yellow spine. And so the the spines that are on the ends of each leaf lobe have a very yellow color. Again, the flowers shaving brush shaped instead of bowl shaped. And so that one has and that one also has quite a bit of hair on the stem. And so that would help to differentiate it.

00:10:10 Dr. Laura Goodman

For sure from your Musk Thistle. And so those thistles we just don't really worry about. They're going to ebb and flow with when we get our rain. But like I said, they're not going to create these really bad things.

00:10:20 Dr. Laura Goodman

Dance.

00:10:21 Dana Zook

And with this recent rain that we've had now, this is being recorded in early May. But you said at the meeting earlier that with the recent heavy rains that we might see some really strange maybe in general some really strange excessive amounts of weeds or you know some other types of things. So that's important to keep in mind, so.

00:10:41 Dana Zook

Listeners, we will have links to all these fact sheets. There's actually three really good ones, but if you.

00:10:46 Dana Zook

If you Google OK state Musk Thistle there, it should link you up to the correct fact sheets. But Laura, thanks so much for giving us this information.

00:10:55 Dr. Laura Goodman

Yeah, no problem. Always happy to share information about managing land.

00:11:00 Dana Zook

So it's it's.

00:11:01 Dana Zook

An ongoing thing. Everything we got to manage everything, right.

00:11:06 Dana Zook

Now I'm joined by Aaron Metcalf AG and 4H educator and county director for Alfalfa County OSU extension Aaron organize, the Weevil Roundup and informational meeting today. So Aaron tell us a little bit about Alfalfa County and their history of Weevil roundups.

00:11:22 Erin Metcalf

So my predecessor Tommy Puffenbarger started this. So we will round up back in the 90s. It's been done successfully in Alfalfa County for two decades.



00:11:33 Dana Zook

And for that reason you mentioned this morning that you had trouble actually finding a stand of thistles for us to collect the weevils from, correct?

00:11:41 Erin Metcalf

Correct. Tommy actually cautioned me to continue this tradition because he was having a hard time finding a big enough stand of thistles that we could have a multitude of people come out and collect weevils off of.

00:11:54 Erin Metcalf

So the weevils, along with the other integrated control options are working in Alfalfa county. It took me quite a while to find a big enough stand to collect on, but I did finally find a stand in Alfalfa county.

00:12:08 Dana Zook

I think you felt like it was important because several people had called, right?

00:12:12 Erin Metcalf

Correct. I did not hold.

00:12:14 Erin Metcalf

The we will round up last year. However, I had a multitude of calls from all over the state of Oklahoma wanting to come, and so I felt that it was something that the public was interested in. And while there's not a huge problem of muscles in our county, there is still a problem of muscles throughout the state and so felt like it was a service that we needed to run.

00:12:33 Dana Zook

There.

00:12:34 Dana Zook

It's a good problem to have, I guess. Aaron, you can't. You don't have a place to collect the weevils cause you have a good control. So that's a really good, good issue. And and it's really awesome to have this opportunity. We have several extension educators here to kind of learn and hopefully we can have an in counties in the future talk me through how we're collecting the weevils today.

00:12:52 Erin Metcalf

We have a couple of tools. They're called sweep Nets and then we have just some wooden they kind of look like a dowel rod and they're a wooden stick. And So what we'll do is bend the head of the plant down into the sweep net and then you just give a tap tap with the stick, and the weevils will fall off of the Thistle.

00:13:10 Erin Metcalf

And into your net.

00:13:12 Erin Metcalf

Once we get the the the weevils collected, we want to every person to take home at least 200 weevils to be effective on their own operation. And so we will place them in a cup. It's a paper cup, not a Styrofoam cup. They're designed for this collection. And so the Styrofoam cup would sweat.

00:13:33 Erin Metcalf

And would kill the weevils, and so each person's going to take home their cup of.

00:13:37 Erin Metcalf

Levels, and they're going to go and distribute them. You want to put about 10 weevils per muscle plants and then? And you want to make sure that you're doing it upwind so the weevils are distributed by the wind. And so if you put your weevils out, the wind will help carry them to the rest of your muscles.

00:13:57 Dana Zook

Yeah. So we have lots of South winds here in Oklahoma this time of year. So put them towards the South of your grouping of thistles. I'm not hearing that right, Aaron?

00:14:06 Erin Metcalf

That is correct.

00:14:07 Dana Zook

OK, Aaron. Thanks so much for talking with me. It's a really great program. I think there's a lot of producers here and several educators. And so hopefully you can kind of guide us going forward on some collections, maybe in another part of Northwest Oklahoma. So thanks for joining me today.

00:14:22 Erin Metcalf

Erin, thank you.

