

“Circumpolar Food Systems: Alaska isn't out standing alone in our field”
With Jodie Anderson, University of Alaska Fairbanks

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North at Trent Lecture – Community Speaker Series

Heather Nicol: Well, good evening. I'm Heather Nicol, the Director of the School for the Study of Canada at Trent University.

Heather Nicol: We respectfully acknowledge that we're on the treaty and traditional territory of the Mississauga, Anishinaabeg. We offer our gratitude to the First Peoples for their care for and their teachings about our earth and our relations. May we honor those teachings.

Heather Nicol: I'm delighted to welcome you here tonight to North At Trent we have a very special guest speaker, but we also have a very special introducer to our guest speaker, because tonight our guests are from University of Alaska Anchorage, and we've had a wonderful partnership with the University of Alaska Anchorage and well from University of Alaska Fairbanks, and from from the anchorage area. Jodi, I won't put you

Heather Nicol: make you a biologist. But Doug will tell us a little more about our guest speaker

Heather Nicol: at this point. It's my privilege to welcome to introduce our guest speaker Doug Causey, and Doug is a professor of Biological Sciences at the University of Alaska Anchorage. He's also an associate of the Belfer Center at Harvard University, although he's way too modest to be associated with Harvard, but he is really a distinguished scientist.

Heather Nicol: well known in the American community Arctic community, and certainly in biological community of biological scientists. He's an ecologist and an evolutionary biologist by training. He's authored over 200 publications on topics as diverse as the ecology of the Arctic Marine birds.

Heather Nicol: high Arctic coastal systems, and what we love at Trent in particular, is his bat research. He studies bat-borne disease ecology among other things, he's published extensively on policy issues related to Arctic environmental security, Arctic one health and bioterrorism and public health.

Heather Nicol: and Doug and I have done a little bit of collaboration together, certainly on some of the the Environmental Security pieces, and he Co. He co-wrote a couple of chapters with me, and and certainly in 1 1 publication

Heather Nicol: his current environmental research examines environmental correlates of climate change and Arctic examines. These correlates of climate change in the Arctic on birds and mammals and bats. I know they're mammals, but still, and bats we love bats, and all our students have

Heather Nicol: that have gone to Alaska with me and have interacted with Doug in Anchorage have certainly been subject to wonderful discussions of bats, and we now think about them differently.

He and his students are actively conducting research in the Aleutian Islands, the Northern Bering Sea. He really gets around in northwest Greenland.

Heather Nicol: He's co-lead of the Coastal Environmental and People's Working group of the NSF Funded Greenland Ice Sheet Ocean (GRISO) Science Network.

Heather Nicol: And that's just you know, we're just touching, you know, the tip of the iceberg here. He's a wonderful colleague, a great friend, and I'm delighted to turn this over to Doug, who will introduce our guest speaker tonight.

Douglas Causey: Thank you. Heather. Wow, I sound pretty important, don't I?

Heather Nicol: Yeah!

Douglas Causey: okay. So yes, I'm here at the University of Alaska Anchorage. And I have the great pleasure of introducing to you, Jodi Anderson. Her research interests are in soil biochemistry with a focus on soil, health, and agricultural soils.

Douglas Causey: Her training, she has a BSc in Science, Education, Biology from the University of North Carolina, Chapel Hill, and MAT, Master of Arts in Teaching and Science Education from Brown University.

Douglas Causey: She taught chemistry and life sciences at high school and college levels for 11 years in North Carolina. Well, she got tired of being in what we call the lower 48, and moved to Alaska in 2003

Douglas Causey: to the University of Alaska, Fairbanks.

Douglas Causey: I won't get you into the rivalry between the University of Alaska Anchorage and the University of Alaska Fairbanks. But

Douglas Causey: We're better. And she came up to manage the Alaska Community Horticultural program.

Douglas Causey: particularly on research on the potato virus studies, and has been involved in citizen science projects, all aspects of agriculture and community gardening.

Douglas Causey: Well, she currently is at the UAF Institute of Agriculture, Natural Resources, and Extension Director. She's the director of the Alaska Agriculture and Forestry Experiment Station, which we call the Experimental Farm and director of the Alaska Cooperative Extension Service.

Douglas Causey: What is particularly notable about this is that very early on and, Jody, you'll have to correct me on this, but I think, even before Alaska was a State, there was the decision that that it would be great if we could induce agriculture on a commercial scale to Alaska and created an experimental farm, which is, those are pretty typical where you're looking at what strains of wheat or whatever would work best in the area that you're in.

Douglas Causey: That work continues to the day. And the work that the Experimental Farm does is really helping develop a whole component of what we here call "Made in Alaska."

Douglas Causey: and this is, produce agriculture. All aspects of that develop entirely here in Alaska, and even though the costs are a little bit more expensive than what's shipped up here.

Douglas Causey: Alaskans prefer it by far, and so the work that the Experimental Farm does is so significant for our state.

Douglas Causey: Well, the environment of Alaska is a little bit colder than where

Douglas Causey: Trent is, but still we're talking about northern latitudes. And so the the work that she and the staff at the Experimental Farm do are extremely important.

Douglas Causey: not only for Alaskans, but for all of you. So with that.

Douglas Causey: Jodi, I'll leave it to you.

Jodie Anderson: Thank you, Doug. That was very kind of you. Hello, everybody! My name is Jodi Anderson. She/her are my pronouns, and thank you so much for inviting me to to chat with you this evening and share with you a little bit about Alaska.

Jodie Anderson: I'm taking a rather broad scope vision of Alaska and looking at our food system. And then we'll specifically look a little closer, more on the production side, because that is my area of expertise

Jodie Anderson: and talk some about the history of Ag in Alaska, what's happening currently and then where we're heading in our future at least, I hope that we had in the future. So there'll be an opportunity for questions at the end. And I really appreciate everybody's time this evening. And I hope that and I hope that this at least

Jodie Anderson: allows you to learn a little bit about things that you may not have known. See some things, hear some things, and then ask some questions at the end. That's where the fun really starts. So I hope you enjoy what I have to share.

Jodie Anderson: There we go. How's that? That's way better, isn't it?

Heather Nicol: Perfect.

Jodie Anderson: There we go 1st time. Zoom user. Yay, woohoo! Just kidding. Thank you for your patience. Okay, so we're gonna talk a little bit about the circumpolar food systems and and really talking about what Alaska is about and where we are, and one of my favorite things

Jodie Anderson: to do in presentations is not have words, but have lots of pictures, and then and then we can, and then we talk about the pictures and use those as our foundation for the conversation.

Jodie Anderson: So just a quick overview of what in the heck we're looking at in this opening slide. The picture on the left is one of my favorite gardening pictures, because that is what some of our gardens look like. This is a picture from Nome, and it's looking out south, and it's a beautiful summer day, and

Jodie Anderson: there's a lot of wind that comes across that tundra. You can see the tape that is a greenhouse that they call it. The growers call that a greenhouse that was a Costco garage shed that was

Jodie Anderson: purchased and put together, and then they use it for growing. It's a season extension concept, and it works really well.

Jodie Anderson: In the middle upper picture this is a giant pumpkin. Alaska is known for growing giant vegetables, and at the State Fair in Palmer we have giant vegetable competitions, and

Jodie Anderson: also, giant pumpkin competitions that are registered with they're certified and registered with, believe it or not, Guinness Book of World Records. So it's a big deal, and I'm a judge for that. I get to crawl around and feel for any holes on the pumpkin. It's a very big deal. I don't know if you're

Jodie Anderson: if you're understanding the seriousness of this, but it's a really big deal. But this is one of my favorite pumpkins that we had. This was a few years ago. And it I just want them to start talking to me. It just made me laugh. But it's a really big deal. We have a couple of growers, and this is what they do is, they grow really, really big pumpkins.

Jodie Anderson: It's our sunlight, the length of day that really contributes to our giant vegetables. Also breeding and crossbreeding into those lines helps a lot.

Jodie Anderson: The right upper right hand picture is a picture of a reindeer herd in corral in the wintertime. This, and we'll talk a little bit more about reindeer in our conversation today, and it's fascinating what has been done in terms of the agriculture, the livestock that is reindeer.

Jodie Anderson: in the bottom left. Is, there's some old hay bales there. This is a picture that was taken in 1920,

Jodie Anderson: and this is taken in Palmer at our research station. As Doug mentioned, we are part of an experiment station

Jodie Anderson: network here in the State of Alaska, and this is the site where I'm located right now. It's got color now here and it's not quite well, it is, it's just that dusty. So it looks almost the same today.

Jodie Anderson: This picture is a picture from 1977, in the same, almost same location this gentleman is standing in the left hand photo. This is a picture here, this is actually my cousin in Michigan who visited our experiment station in 1977.

Jodie Anderson: Farmers like to visit farms when they're on vacation, and my farm family came up to visit and came here to the station, and that is my cousin Lori, and a picture of a giant cabbage that's being grown here

Jodie Anderson: inside this next photo. This is a beautiful photo of a very large high tunnel that is in Bethel, Alaska. It is a remote location, and this is one of 3 high tunnels of this size, and this producer has found tremendous success using these high tunnels

Jodie Anderson: to grow, produce and sell them to the community, and their their greatest success, they have found is strawberries.

Jodie Anderson: Believe it or not, they're actually growing 3 different layers of strawberries within that they have them on the ground and in raised beds. They have them on the sides of shelves, and they have them in baskets hanging from the ceiling, and they sell every strawberry they grow. It's quite lucrative

Jodie Anderson: this last picture on the far right is one of my favorite shots about what farming looks like in Alaska. This was a this was a this was a project that was put in to the Galena State Fair. Galena is a small community of interior Alaska that is, on the Yukon River.

Jodie Anderson: and it was a particularly cold year that year, and so this was a project, and if you can read it says small scale farming, and believe it or not, all of the vegetables are truly, really true vegetables that she harvested for this. So you have, you have little tiny Brussels sprouts, green beans that are about the size of a match

Jodie Anderson: stick, and then other vegetables as well. It just cracked me up. And this is this is our perspective on small scale farming. So we do have good senses of humor, if nothing else. So welcome to Alaska agriculture.

Jodie Anderson: I do want to start us all on the same page, because, a lot of times there's vocabulary, that.

Jodie Anderson: that's next oops. Where are you?

Jodie Anderson: No, no.

Jodie Anderson: Next.

Jodie Anderson: Okay. Next, that's next, there we go next. There it is. So what we do here is

Jodie Anderson: I'm gonna get rid of this hide the panel.

Jodie Anderson: So

Jodie Anderson: A lot of times the word food security is thrown around a lot, and I don't like throwing that word around. Even though it gets that. That's what most people are talking about. It's it's very difficult to define food security and food security is oftentimes defined. You have 10 people in a room, you'll get 10 definitions, or maybe 12 definitions of food security.

Jodie Anderson: The really easy thing to do is is talking about food

Jodie Anderson: in the larger picture as a system, because it is just that the food system is complicated. It's complex. It's very. It's so much more than just food security. So I like to refer to the food system when we're talking about any aspect of this work.

Jodie Anderson: And so I wanted to show you a little bit.

Jodie Anderson: Of the difference between kind of the Western food system model is the diagram in the upper left hand corner, and you'll see that

Jodie Anderson: Oftentimes these are, even though it's a cycle, and it's a system, and it's circular, and one feeds the other. It almost always starts with food production on top

Jodie Anderson: and goes from production of processing to distribution markets, consumption and then waste and then back to production.

Jodie Anderson: A few years ago several of us who were working in the food system world in Alaska really started talking about Alaska has a different food system model.

Jodie Anderson: and we really need to acknowledge the a critical piece that doesn't show up in the Western Food Model, the Western Food System model, and that is the concept of wild foods

Jodie Anderson: that is huge for us in Alaska.

Jodie Anderson: regardless of your cultural background. Whether you are Indigenous or not. Wild foods are part of the Alaskan food system. I would

Jodie Anderson: probably venture to say.

Jodie Anderson: a majority of Alaskans have something in their home, in their freezers, in their pantries that is, that was a wild food, whether it were berries, and you made it into jams. You've frozen the berries in your freezer to use throughout the wintertime. Whether it's

Jodie Anderson: fish, you know, salmon, halibut, cod, whether it's moose or caribou or you know, or even other wild game. We have.

Jodie Anderson: All Alaska has a component of wild foods that are a really significant part of our food system. Everything else is also part of the Western system that still is part of it. But it's really critical that we acknowledge that wild food component.

Jodie Anderson: And so in Alaska, when we're talking about our food system, I like to make sure that we acknowledge the importance of the wild food component.

Jodie Anderson: and to understand that all of us eat food. So all of us are part of the food system.

Jodie Anderson: So instead of talking about food security, and I-can -go-to-the-grocery-store-and-buy-whatever-I-need attitude. Yep, I'm secure.

Jodie Anderson: being part of the food system, as a consumer

Jodie Anderson: allows allows the conversation. Now, you're part of this. You're you're integral in this system. So we're all part of this system. So I really like to focus on using terminology like food system instead of using just food security

Jodie Anderson: for tonight and for my specialty area, we'll talk a lot more about the production side. So that's the the agricultural side of things that happen here in Alaska. But seeing how it fits in with the bigger picture, and understanding that in Alaska. It's not all about production food. It's also about wild food, whether it's caught or harvested or gathered

Jodie Anderson: or picked. Whatever verb is needed to get that wild food. They are very important to what we do.

Jodie Anderson: So here's a little perspective for you.

Jodie Anderson: I know most of you are in Canada right now, and those of you who aren't, who are part of UAF, I recognize some names and faces, you are aware of this, but

Jodie Anderson: Alaska is a really big place.

Jodie Anderson: as you can see here, we're to superimpose it on the lower 48. We like to call it the 48 contiguous United States. Your neighbors to the south. For my Canadian friends.

Jodie Anderson: I tried to find this map with us superimposed over Canada, and I could not find one. I'd love to see one. I'm not a Gis person, so I didn't have time to play with it. But I didn't find one. So the perspective is is off

Jodie Anderson: for for Canada, because Canada is a much bigger place than the lower 48. But just to give you perspective and to kind of see what we're dealing with when we talk about agriculture in Alaska. There's not one answer

Jodie Anderson: when you talk about varieties. As Doug was mentioning before a lot of the work that we've done in the past, and we're continuing to do are variety trials

Jodie Anderson: at our farms. And when you talk about doing variety trials. I'm working. If you look at the very, very far southeast.

Jodie Anderson: you know, as far southeast. That is a temperate rainforest.

Jodie Anderson: just to give you some knowledge that is not the same biome. It's not even ecosystem, but the biome is different than where Doug and I live, which is considered South Central Alaska around Anchorage, and if you can see my little cursor

Jodie Anderson: right in this area, so this whole kind of swath here is South Central Alaska. South Central Alaska, is much more temperate than where my friends, who are all in Fairbanks right now, are sitting.

Jodie Anderson: Fairbanks is about 320 miles north of where I'm sitting right now, and it's a totally different biome than where we're sitting right now. That is strong boreal forest. It is intermittent permafrost

Jodie Anderson: areas. Depending on where you are, there could be more or less. We don't have quite that much down here in South Central

Jodie Anderson: In in most of our our fields, if you will. So.

Jodie Anderson: and then, when you look to the west of Alaska, our western area is much much less forested, much more grasses and tundra and some actually really beautiful soils. Because, you see those rivers that

Jodie Anderson: come out into the Bering Strait.

Jodie Anderson: So we have a really amazing state that covers huge areas. We should be

Jodie Anderson: 4 time zones long.

Jodie Anderson: And we're one. Actually, there's only 2. There's a little bit on the Aleutians West

Jodie Anderson: is one time zone, and then the rest of Alaska is another. Fun fact why that happened. Our State capital is in southeastern Alaska, in that

Jodie Anderson: that that temperate rainforest. That was a different time zone than where the most people lived in Alaska, and to have your state capital and your your population center different time zones was just crazy. So they made us all one time zone, which is pretty funny.

Jodie Anderson: So I want to start with - I appreciated the land acknowledgement Heather - and I want to start with an acknowledgement of Indigenous agriculture.

Jodie Anderson: For millennium,

Jodie Anderson: the peoples of this land have, in my opinion, my definition of agriculture, have participated in agriculture.

Jodie Anderson: And the reason that I say this is because our Indigenous peoples have for

Jodie Anderson: for years and years and years gone out and collected, but

Jodie Anderson: not collected all of a particular thing. Let's say they're picking berries or chocolate lilies like the bottom picture.

Jodie Anderson: They don't. They were. They were. They're very knowledgeable about the land and about the animals, and about the plants that you don't go in and take everything and then wait for it to grow back, because that doesn't work that way. And so by they truly were cultivating.

Jodie Anderson: by selecting the good ones, and left them to go to seed, to come back later and harvest some, but not all, to again leave a breeding stock

Jodie Anderson: to allow that. And so, knowing that those berries are in that area and that they're they're the good ones were left behind, and a 3rd of them were harvested for consumption, and the rest were left

Jodie Anderson: so that there were enough to propagate for the for the following year and years to come.

Jodie Anderson: In my mind, that truly is, is agriculture. And so

Jodie Anderson: Whether it was wildlife, whether it's fishes or plants,

Jodie Anderson: agriculture was happening. Selection, humans were selecting and leaving breeding stock in order to keep going and move that forward.

Jodie Anderson: So for your awareness, the beast that's sitting like a dog is not a dog in the second picture down. That is a musk ox.

Jodie Anderson: I he was literally sitting like that. I don't know why, but he enjoyed sitting that way. I watched him for quite some time. Then he got up and he walked around a little bit more.

Jodie Anderson: The below is a a fish rack. A very kind of a plain air fish rack. It was in the community of Koyukuk, which is over on the Norton Sound, which is over here on the West Coast.

Jodie Anderson: And I show you this map.

Jodie Anderson: Because well, I find it incredibly beautiful. I love maps very, very much. This is one of my very favorite maps, and it is a language map of all of our different languages and our Indigenous cultures. We're very rich with Indigenous cultures, and acknowledging the agricultural practices that they

Jodie Anderson: have worked on and used

Jodie Anderson: since the beginning of time is very important to me as we talk about food systems in Alaska. And so, anyway, I just wanted to share this and start the story at the very beginning where it should

Jodie Anderson: and then we'll move ourselves into a little bit a little bit more into the times where

Jodie Anderson: we had silly men with moustaches standing in fields with 5 almost 5 foot tall grains growing around them.

Jodie Anderson: This is, you know, the the tip of the hat to the history of the the Western prior to this and these photos,

Jodie Anderson: Alaska had Westerners coming in as missionaries

Jodie Anderson: into communities. And in some of those communities the missionaries brought

Jodie Anderson: gardening with them to those communities. And so those communities were able to they

Jodie Anderson: they had gardening introduced to them through the missionaries work. Also, there were adventurers looking for gold. There were homesteaders coming up.

Jodie Anderson: And the the pioneers who were looking for new lands. Most of them brought with them agriculture. Some brought livestock, many brought seed stock with them.

Jodie Anderson: and

Jodie Anderson: They started asking a lot of questions about what can grow in Alaska? What can't grow

Jodie Anderson: In the summertime, do I have to milk my cow 3 times a day, because it's light a lot longer than in the lower 48.

Jodie Anderson: So the United States Department of Agriculture sent up a team in the late

Jodie Anderson: 1890s, and ask them to figure out if Ag is is worth doing in Alaska.

Jodie Anderson: The answer was yes.

Jodie Anderson: which then resulted in 8 different stations, research stations being established across Alaska. The very 1st one was in Sitka, Alaska, down in southeast. In that temperate rainforest that I mentioned.

Jodie Anderson: They started doing apple research.

Jodie Anderson: They were doing fruit tree research, figuring out what apples, what rootstock could be used to grow apples. And then across the State, there were these stations. Most of them lasted just a couple of years, but there were a couple stations that actually stuck.

Jodie Anderson: One of them was in Fairbanks, Alaska, and in Fairbanks that station started in 1909. But the actual farm was built in 1911.

Jodie Anderson: That was a USDA farm, United States Department of Agriculture.

Jodie Anderson: and it was a research station.

Jodie Anderson: and they were helping homesteaders figure out how to grow food in Alaska.

Jodie Anderson: They were also there to see if it was worthwhile

Jodie Anderson: for the USDA to invest in Alaska and in agriculture up here.

Jodie Anderson: So they started doing research in Fairbanks at that farm, and in 1917,

Jodie Anderson: just to the east of that farm

Jodie Anderson: the Alaska Agricultural College and School of Mines started.

Jodie Anderson: and that was the 1st university in the State.

Jodie Anderson: In it became

Jodie Anderson: The University of Alaska in 1935.

Jodie Anderson: And then, as that grew and anchorage grew, it became the University of Alaska, Fairbanks, specifically. In 1917

Jodie Anderson: it was decided that this area, the area where I'm sitting right now in South Central Alaska had some really good opportunity for agriculture, good soils, Yup, good soils, a population that was beginning to grow in a community just to the south of us, called Anchorage.

Jodie Anderson: There was a train there. There was a train. There were train tracks that were built that connected Anchorage to Fairbanks, and that was for freight and

Jodie Anderson: for tourists. Yes, tourists in 1917, and as that was finishing up

Jodie Anderson: this land was part of the Alaska railroad system, which at that time wasn't called the Alaska Railroad system. But that's what it was. The Commission had this land and this land was given to USDA

Jodie Anderson: for ag purposes.

Jodie Anderson: And so they started an experiment station here in 1917.

Jodie Anderson: In 1935, when the University of Alaska, Fairbanks, or the University of Alaska, Fairbanks started in Fairbanks, and was so named, it became the Land Grant University of Alaska

Jodie Anderson: and

Jodie Anderson: in the United States, Land Grant universities are public universities that were funded by land being given to the University by the Federal Government in order to monetize the university for public education in agriculture and military sciences. Believe it or not.

Jodie Anderson: So that's where we got started. And that's that's where we started. Our 2 farms

Jodie Anderson: have changed over time and yet not also simultaneously. We continue to study

Jodie Anderson: what works and what doesn't work. We continue to work on arctic and subarctic agricultural questions.

Jodie Anderson: We've gone through phases of livestock and no livestock and livestock and no livestock. We're just starting the livestock phase back up again. We're getting ready to start that again. It's really exciting.

Jodie Anderson: We have had varieties developed at at our our stations. We've had

Jodie Anderson: potatoes. I'll try to think lots of vegetables.

Jodie Anderson: several types of grasses. A couple varieties, several varieties of wheat and of barley. Most of the barley is hulled, so it's feed barley.

Jodie Anderson: There has been some human consumption hull-less barley that's been developed, fruits, strawberries, and raspberries were developed at the farms.

Jodie Anderson: We figured out the right root stocks, but didn't do a lot of breeding with apples per se

Jodie Anderson: And then there's also been some landscape work, landscape trees, different larch varieties, tamarack or larch, and different things like that have been tested as well

Jodie Anderson: in the in the late, in the early thirties. In the early 1930s, after the Great Depression

Jodie Anderson: and part of the United States New Deal,

Jodie Anderson: there was an opportunity for indigent farmers from Michigan, Wisconsin and Minnesota.

Jodie Anderson: to apply to come to Alaska and start start our agricultural community here in Palmer, Alaska, and it was called the Palmer Colony Project.

Jodie Anderson: and the community of Palmer

Jodie Anderson: was a depot. Actually, it was just where the train went through to get coal from the Talkeetna Mountains and take it into anchorage for their energy production and their heat production.

Jodie Anderson: So we're just kind of a pass through. There really wasn't much of a community at all.

Jodie Anderson: And

Jodie Anderson: then in the in the thirties, the early thirties. They brought up 203 people in the colony project. The United States Government brought them up, and the idea was, we'll give you land.

Jodie Anderson: and you're going to farm it. And there was the beginning of a military presence in Anchorage, and we needed to feed the military. And so this is on the train route. So it made a lot of sense. Let's figure it out here. The soils were good, and the success of this station here in Palmer really drove that message home, that this is a location that will work

Jodie Anderson: for this this colony idea.

Jodie Anderson: So it's called the Palmer Colony Project, and it wasn't really successful. It was like a lot of government projects where they had good intentions, but they kind of forgot to plan some things. There are still families here today who are direct descendants, and there are

Jodie Anderson: children of colonists who are here in Palmer, and it's really neat when we do historic presentations about the farm, and I show pictures like the very 1st one of the of the gentleman standing in the hay field, and someone will tell me after the presentation that was my dad's uncle, you know, or something I'm like, Wow, that's so cool.

Jodie Anderson: So we're really, actually our history is very new. We're not old by any means, in terms of kind of the timeline of things.

Jodie Anderson: but, as Doug mentioned, I am a soil scientist, and so I do like to talk about soils in Alaska, and so I'll talk a little bit about those which then will guide us into why, we do what we do in Alaska and what is successful and what isn't successful.

Jodie Anderson: This is a 1983 soils survey map.

Jodie Anderson: Again, I I didn't realize I was so map heavy. But I really love maps, as you can probably tell. We have 4 station locations across the State, and you'll see that the golden stars are our locations. The furthest south one is the location I'm located at now in Palmer, Alaska, and Doug is located just like right

Jodie Anderson: there.

Jodie Anderson: So this is Palmer, and then there's a road. You'll notice something about all of these.

Jodie Anderson: and we'll take this road north.

Jodie Anderson: and we'll hit our next star that is Nenana.

Jodie Anderson: We have acreage in Nenana, and not a lot of research going on yet. It's a very. It's a very new site.

Jodie Anderson: I think there's some really cool potential there.

Jodie Anderson: For us to do ag research. I don't think it's a solid place for agriculture, at least not lots of soil-intensive agriculture.

Jodie Anderson: And by that I mean, like, potatoes are not gonna be what you want to grow out there.

Jodie Anderson: Grain's probably okay.

Jodie Anderson: Then, if we take the road from Nenana and we go to the farthest north star, that is our Fairbanks farm, and that is,

Jodie Anderson: on the west side of campus of our Troth Yeddha' campus.

Jodie Anderson: and then, as you take the road from Fairbanks, and now go south around the corner and head south. That's Delta Junction.

Jodie Anderson: Delta Junction was another agricultural project that was a statewide agricultural project. The Palmer Colony Project was a Federal project, and it brought people from other States up here.

Jodie Anderson: The Delta project

Jodie Anderson: was also. It did bring other other farmers from other States up here, but it was run by the State of Alaska, and that project was called the Delta Barley Project, and in the eighties it was decided that barley grew really well up here, and so what we needed is to grow more barley.

Jodie Anderson: So invite farmers who have some grain growing successes, bring them up here, give them land, allow them to grow barley, and things would go well.

Jodie Anderson: Unfortunately, there was no market for the barley, and so the farmers, you know, are successful their first year, and they're like we did it here, State of Alaska, here's our barley and state of Alaska is like, Okay.

Jodie Anderson: figure it out like we don't. There's there was no market. There was nothing to do. There's not a train line that runs to Delta, and so getting the barley to a market was not even part of the infrastructure.

Jodie Anderson: So another bummer when it came to it. But this is where we're able to do a lot of our grains research, just to give you some ideas about differences between just between Palmer and Fairbanks and Delta Junction.

Jodie Anderson: We will plant in Fairbanks in the springtime first

Jodie Anderson: Most years sometimes not always.

Jodie Anderson: Delta will be probably close to the same day.

Jodie Anderson: And then there's Palmer.

Jodie Anderson: Recently it's been Palmer by a week or so early.

Jodie Anderson: Then comes Fairbanks, then Delta, and then, when we harvest, oftentimes it's

Jodie Anderson: Delta, and then Fairbanks, and then Palmer

Jodie Anderson: Palmer is more temperate, we tend to have less sunshine. I don't mean like day length, which our day length is shorter than Fairbanks and Delta Junction is. However, we have more cloud cover, so we don't quite get the the sunshine that Fairbanks and Delta Junction get

Jodie Anderson: Delta Junction and Palmer both experience tremendous winds. So we have a lot of soil erosion issues, wind erosion.

Jodie Anderson: Fairbanks. Our site in Fairbanks is very deep soils. They're excellent soils, as you can see on the soils map.

Jodie Anderson: You see the very dark colors.

Jodie Anderson: Especially on the north of the Yukon River here, and there's dark green around Fairbanks and Nenana.

Jodie Anderson: There's no dark green down here in Palmer. Fairbanks has much deeper soils than we have.

Jodie Anderson: Palmer is a much more recent glacial

Jodie Anderson: results of of glaciation. And so our soils are really shallow. And here on the farm I have fields that are 4 to 6 inches of topsoil, and under it is a glacier of moraine which is just rock. It's all. It's just cobbles and stones and and pebbles right below it, so we don't have a huge water holding capacity.

Jodie Anderson: Whereas Fairbanks has very deep soils.

Jodie Anderson: and so there's a lot of moisture holding capacity opportunity in Fairbanks. So we get in the fields a little later, and we're doing all of our research is dry land farming. So we're not irrigating anything because our farmers tend to not irrigate in Alaska. And so because of that, we're not going to use methods in our research

Jodie Anderson: and then tell our farmers, hey, here's the best way to grow this thing. Oh, and also use use methods that you're not used to using. We're not going to do that. So we know what our farmers are doing in the fields. And so we try to use those same processes as we do our research, so that when we make recommendations, it's it's much, much

Jodie Anderson: easier for them to to take that and apply it as opposed to - great, now I have to buy a center pivot and dig a well. Thanks, UAF. So we don't have to worry about that so much.

Jodie Anderson: But our temperatures are much cooler in the summertime in Palmer than they are in in Fairbanks and Delta Junction. They are much warmer in the wintertime.

Jodie Anderson: For example, right now, here in Palmer we have 0 snow cover, which is really frightening. We have had some warm weather, and we have rhubarb is beginning to erupt, as well as many other perennials people are starting to tell me about.

Jodie Anderson: Whereas in Fairbanks there's lots of snow, a really nice insulation for our soil, so they're going to have a nice recharge of water after melt after breakup.

Jodie Anderson: and they'll have that deep soil moisture that'll feed those crops all summer. We're not going to have any of those things down here. It's very difficult here in Palmer for us to grow a lot of our grains, but they're very successful in Fairbanks and in Delta Junction.

Jodie Anderson: So even within our state, we have in our 4 stations, we have very, very different growing conditions and and soil types. So you're getting very different results. So the variety of broccoli that works really well in Fairbanks is not the variety that does really well in Palmer.

Jodie Anderson: So that's why we have lot of different stations around the State.

Jodie Anderson: So because I'm a soil nerd, I had to geek out a little bit any chance I get to share soil pictures, I do. This is a profile shot, and of course

Jodie Anderson: it's we have very young soils in Alaska, and it's hard for people to conceptualize that. But Alaska is a very young place in terms of kind of geologic scale and time.

Jodie Anderson: We have very young soils, and so you occasionally will see some nice horizon development like you do in this left picture.

Jodie Anderson: however, a lot of our soils are really really young and not well differentiated.

Jodie Anderson: We have very high organic soils. We have very high levels of organic in our soils. And so.

Jodie Anderson: you know, when people start gardening or or farming, and they look at a soil survey, or they get a soil test done, and then they send it to extension. Or you know, if they know me, they'll ask me to do it because I love doing them and and they have, you know, 8% organic material

Jodie Anderson: in an ag soil. And they're like, should I put on more compost? I'm like, no, don't do it. You don't need more organics in your soil. You have plenty now it's using it up right.

Jodie Anderson: Our soils are cold.

Jodie Anderson: I know, like, Wow, that's magical, Jodi. Thanks. I'm so glad that I spent my evening listening to you tell tell us that soils in Alaska are cold. They are cold, and what happens in cold soils even down here, where I don't really worry about permafrost in this area.

Jodie Anderson: But after a huge windstorm you'll see trees that have blown over, and their root balls are this deep.

Jodie Anderson: even tree roots when they get to a point where it doesn't have to be frozen soil, but it's cold, they start to just grow laterally.

Jodie Anderson: And so what you end up with is you end up with, not root balls, but root mats.

Jodie Anderson: Even tap roots don't grow down very deep, and so

Jodie Anderson: cold is our is our issue.

Jodie Anderson: The cold soil is our issue.

Jodie Anderson: On the upper right picture is, you can see the ice below kind of out of focus in that shot. This is a picture of glade soils. So this is, this is super oxidized soils. And you can see it's starting to rust a little bit. It's starting that's starting to oxidize.

Jodie Anderson: So it's super reduced soils. It's really gray color, because it's soaking wet because it's sitting on top of permafrost

Jodie Anderson: and what's really cool, that's hard to see in that photo. But the root canals all had oxidized. So these bright red root canals, because that's where oxygen was surrounded by these cold soils of of like nearly frozen soils

Jodie Anderson: that were glade. So it was the steel gray color, and these bright red veins that were the root canals of the root channels really, of all of the little the little

Jodie Anderson: plants that were growing on the surface of the tundra. It was so cool super nerd moment, like, yeah, soils. But this, this is a, this is a typical soil. That's

Jodie Anderson: it's basically on top of a permafrost ledge or shelf.

Jodie Anderson: And the picture at the bottom is every good soil scientist has to have a picture of them with their butt in the air so just sharing, that's what I do.

Jodie Anderson: So what sort of industries are up here?

Jodie Anderson: We've had industry. We've had agricultural industry in Alaska, and I mentioned reindeer on the very 1st picture, and reindeer is still an industry that's ongoing. It was originally brought, reindeer were not part of Alaska. They were not indigenous to Alaska.

Jodie Anderson: and they were brought into Alaska by a missionary, from the Presbyterian Church, Sheldon Jackson.

Jodie Anderson: and it was in the late 18. It was in the 18 late 1880s.

Jodie Anderson: And he wanted to feed. He wanted the Indigenous populations to be able to eat and feed themselves. Because

Jodie Anderson: on the west coast of Alaska.

Jodie Anderson: And so he brought reindeer over, and we're like here. We'll show him how to we'll show them how to herd that works and in at first it was a really bad idea, because the people he brought with him with deer

Jodie Anderson: didn't get along with the Indigenous population. They were Indigenous to to Russia, and they weren't happy. And it was a bad relationship.

Jodie Anderson: So that didn't work out.

Jodie Anderson: So let's try this again. Okay, yep, thanks, Sheldon, we'll try this again. So the next iteration was, he brought Sami people. Sami, are Indigenous people to the

Jodie Anderson: to the Nordic region.

Jodie Anderson: And they are their traditional reindeer herders. So the idea was, let's bring Sami people, Sami herders and their families and their deer

Jodie Anderson: to Western Alaska and bring them into communities and teach the Alaska Indigenous people how to become reindeer herders.

Jodie Anderson: And so that's how reindeer herding started in Alaska.

Jodie Anderson: Then only Alaska native could hold could have female female reindeer.

Jodie Anderson: and it was in the 1920s

Jodie Anderson: that there was a young man from Chicago who was up gold mining in Nome area, and he

Jodie Anderson: he he literally

Jodie Anderson: was. He was very hungry. He's standing and and mining for, or panning for gold. And he looked up, and there was this giant herd of reindeer

Jodie Anderson: standing there looking at him. He had no idea what to do, because he didn't know anything about a reindeer herd if they would attack him or stampede, or what, and he started talking to folks, and he started talking to his family down in Chicago, and they realized, he realized that there was an opportunity to make some money on this meat

Jodie Anderson: so as as most stories do, it didn't really work out as well as he had hoped, but at one point there was over 6, almost 6.5 million. I know I have over 6 and a 3rd but it was almost 6.5 million pounds of meat of reindeer meat was exported out of Alaska

Jodie Anderson: into the lower 48, and sold, and it was very popular. It, it ran. It made a run for the beef industry.

Jodie Anderson: and after that, in the early 1930s, the well, when the depression hit and the start, the stock market crashed, and no one had extra money to spend on fancy things like reindeer meat, this industry crashed and the herds went from over 500,000 reindeer in Alaska to 30,000

Jodie Anderson: And now there was the Reindeer Act, and now in Alaska only Alaska natives can own

Jodie Anderson: these reindeer as livestock.

Jodie Anderson: You have to be Alaska native to herd reindeer legally in Alaska.

Jodie Anderson: And so this industry is starting to. It's it's it's always been there. It's there's always there. Predominantly on the Seward Peninsula, which is where Nome is located in Northwestern Alaska. And it's

Jodie Anderson: it's still happening. We have people who are working with our herders now. This is 3rd and 4th generation herders.

Jodie Anderson: and there, there's some success, and it's very exciting. And so there, several years ago, it was about 2008

Jodie Anderson: there were a group of chefs in Denver, Colorado who wanted to highlight

Jodie Anderson: reindeer. Because it's a really, it's it's very low, fat. It's delicious. The myofibrils in reindeer meat in the muscle. So the muscle fibers. Actual muscle cells are finer than caribou, and so it's very tender. It is delicious.

Jodie Anderson: I love reindeer. It's very good. And these chefs wanted to feature reindeer, and so they bought

Jodie Anderson: deer on the hoof from a herder on the Seward Peninsula, had them

Jodie Anderson: crated. Live to a slaughter facility here in Palmer that is, certified USDA, the the deer, were slaughtered here, and then

Jodie Anderson: meat was was packed, sent down to Denver, and then they turned them into very fancy dishes for very

Jodie Anderson: very excellent prices for them

Jodie Anderson: where the herders just were selling just the full off the hoof and so this industry is starting to shift into a little bit more specialty, a little bit more opportunities for sales in specialty markets. And it's still it's still around. And it's still happening. And

Jodie Anderson: it's it's improving. We hope so. What's happening in agriculture today?

Jodie Anderson: We have a thousand you can. You can read the numbers. But this is. These are some of our largest statistics here. This is our

Jodie Anderson: USDA Ag census data. So every 5 years the United States Department of Agriculture sends a census out to all the farmers. And then these are the response data. So you can see here that we've had tremendous growth in the last many years.

Jodie Anderson: The the really interesting thing to me is

Jodie Anderson: seeing this, this bottom statistic here about the farmers markets.

Jodie Anderson: we have. These farmers markets don't include food hubs and farm stands. These are just official markets. We also have 20 other

Jodie Anderson: food stands and farm stands and food hubs that are happening in Alaska in addition to these 66 farmers markets. And this is really where our agriculture is - more than half of our farmers are farming on land less than 9 acres.

Jodie Anderson: We are working currently in

Jodie Anderson: lots of of season extension work. You can see this this idea in the picture in the lower left hand corner. This is. This is actually at a school. This is in Tok, Alaska. It's there.

Jodie Anderson: their greenhouse there. It's fed, if you will. It's heat source is waste heat from their biomass, heater and and furnace system, and they grow food for their whole school district.

Jodie Anderson: There, in in this greenhouse that the kids run which is really exciting

Jodie Anderson: grains are happening. These happen to be oats in this picture. They're grown as feed. Barley is definitely our number one grain successful grain. And we're also looking in the future. We are growing Kernza very successfully in Fairbanks right now. Kernza is a thin wheatgrass that's perennial.

Jodie Anderson: so you can cut it, and then it comes back next year. It's doing very well. In fact, some of our research partners in North Dakota came to visit it last summer and are shocked at how well it's doing.

Jodie Anderson: We're also trying to look at different oilseed products. Canola does grow very well in Alaska, but we don't get it to drying harvestable seed. So it's still slightly green, which

Jodie Anderson: isn't good for Canola. So we're working on Camelina also in Fairbanks. It's warm enough, and we've had two really exceptional summers. And so we've had some really excellent camelina results which is exciting for our legislators as they look down the road at potential markets.

Jodie Anderson: Our largest agricultural export in Alaska is the peony.

Jodie Anderson: Yep.

Jodie Anderson: Peonies are our largest agricultural export that was started at the University of Alaska, Fairbanks, by one of our horticulturalists, who said, at a meeting in Kansas City of a bunch of flower growers when they were all complaining that peak bridal season in the lower 48 is, after all the peonies are done.

Jodie Anderson: and our professor said, not Alaska peonies. That's when ours are just coming coming up. So we have a market. Now with the changes that are happening even just in the last few years. Our peonies are starting to blossom earlier, and we're working ourselves out of that niche market. And that's kind of frightening.

Jodie Anderson: We do have a huge horticulture that's that's grown in Alaska. As you can imagine. Our root crops grow very well here. All of the crucifers, broccolis and cauliflowers and cabbages and kales, and and then also

Jodie Anderson: you know, we do have the giant cabbages, too. We have potatoes grow very, very well here we grow them lots of leafy greens.

Jodie Anderson: And we're starting our new livestock research program here in Palmer that we're very excited about. We have a new researcher on board, and he is very interested in using Alaska grown products to serve as feed for our livestock, because shipping feed in is wicked, expensive, and we don't grow corn up here. So

Jodie Anderson: there's that.

Jodie Anderson: So looking at as we as we look to the future, we have a lot of opportunities our just in the 20 years I've been here in Alaska I've seen a shift in temperature, length of summer, and and and

Jodie Anderson: we weren't growing wheat down here when I first moved here and now we have a farmer who's growing about 38 acres of wheat

Jodie Anderson: successfully, and has for the last 3 years. So

Jodie Anderson: there is a shift, and that shift is going to create new opportunities for new plants and new growing systems. And that's what we're here for at the University of Alaska, Fairbanks. In our research, our agricultural research is trying to figure out where we fit in and how we can prepare for all of these changes that are happening in the future.

Jodie Anderson: So here we are a time for questions. I really appreciate everybody's patience with me, and I will go ahead and stop sharing, because

Jodie Anderson: it would be most fun to not share anymore.

Jodie Anderson: And I could see everybody there we go.

Heather Nicol: Thank you so much, Jodi. That was really fascinating. I mean, we talked in the summer, and yet I learned so much more from talking to you or listening to you tonight. So and I see I think we probably have some questions. So

Heather Nicol: Now, why don't we? Let's see if I can get the view. How many?

Heather Nicol: If I can get a gallery view?

Heather Nicol: I well, we'll just see why don't we? Maybe the best thing to do is to rather than just jump right in just to pop up your hand if you want. Okay? And and, Cathy, you've got a

Heather Nicol: hand up.

Cathy Schoel: Thanks very much, Jodie. I actually was curious. You said so many. There's such a

Cathy Schoel: big group of people who are farming on 9 acres. And I mean farming around where I am in Central South Central Ontario.

Cathy Schoel: it's big machines, and it's big fields. And

Cathy Schoel: you know, farmers who don't have, you know, if they're doing crop farming, if they don't have a hundred, if they have a hundred acre farm, which is sort of the standard in this area. Then they have to rent fields to do cash cropping on other property that they don't own. But they're renting. So

Cathy Schoel: it like, I'm thinking about volume. But I'm also thinking about machinery like, what?

Cathy Schoel: How are people physically doing the cultivation and harvesting on 9 acres? Is it hand done, or that, you know, are they?

Cathy Schoel: kind of are they using horse and plow like, I mean, you know, smaller, well, smaller scale stuff that.

Jodie Anderson: Sure. Sure. Yeah, no, I that's a great question. And I could. I could say yes to all of those answers based on the you know, producers that I know. Very few of our producers are on 9 acres. That's just that's the between one and 9 acres is USDA's like 1st tier. Most of the ones that I'm aware of that are are market growers are like looking at 2 acres.

Jodie Anderson: and the way that they work those is, they're they're very intensive. They do crop rotation like they'll have 3 different

Jodie Anderson: 3 different harvests of thing within their growing season. They'll you know they'll do early spinach, and then they'll cut it all out, and then they'll plant something for that next go around, and then, when that's all done, they'll plant even a 3rd time around. So it's very intensive. It's very diversified. It is.

Jodie Anderson: Most of them are

Jodie Anderson: by hand. We don't have a trained labor force in Alaska for farm working. So it's neighborhood kids and family who get roped, I mean, who get hired to do things.

Jodie Anderson: it is a lot of

Jodie Anderson: small scale of machinery there are. There's like a walk behind tractor called a BCS. And you can, it's kind of like a giant rototiller, but you can walk behind it, and it's it's great, for you know, kind of that one acre, 2 acre, and this isn't so, if you can imagine 2 acres. But it's not a flat, 2 acres of all vegetables.

Jodie Anderson: It's you know. It's a few beds of this, and then a high tunnel, a couple low tunnel systems, and then a couple row field rows, and then, you know, a border of cut flowers. And you know, so it's very, very diversified. It's very different. And it's very hard to run, you know, like like what you're talking about. And I'm originally from Michigan, and I know what you're talking about

Jodie Anderson: with the farms. It's all very tractor intensive, and you can't do that. The way that these farms work up here, so a lot of people are doing it by hand

Jodie Anderson: on the small farms.

Heather Nicol: Super we got. I'm just scrolling up and down. Have we got another question for?

Heather Nicol: Well, well, maybe while we're waiting? I'm just curious today about the the extent of university starts out as an Ag kind of college. And what is the extent of Agri? I know the work you're doing, the research you're doing. But what is the extent of agriculture as a sort of university subject? And are there still? You know.

Jodie Anderson: No, yeah. Interestingly, we've lost our College of Agriculture.

Jodie Anderson: We no longer have a school of agriculture. We're a land Grant University, with no school of Ag. We're not. There's a couple of us that work. I think there's 2 in the United States that are like that. We

Jodie Anderson: agriculture in Alaska is really

Jodie Anderson: It's it's really

Jodie Anderson: It's not thought of.

Jodie Anderson: It doesn't look like the Ag that you guys just described with the 100 acres and a tractor and the this

Jodie Anderson: It doesn't look like that everywhere here. It looks like someone's backyard garden just grew like crazy. And it's huge, and they just take the stuff to the market and sell it. So a lot of people don't see see the agriculture happening. And because Alaska is such a heavy oil and gas and minerals.

Jodie Anderson: extraction, natural resources extraction, state, agriculture it gets forgotten about. And so

Jodie Anderson: because of that, it becomes less and less critical. In terms of the the needs at the university level. So you know, as as I'm trying to rebuild this

Jodie Anderson: as I'm trying to rebuild our Institute and our research enterprise and our outreach. And in all of those things I'm also trying to kind of create a culture of agriculture and and moving that forward simultaneously to eventually start building more on of the academics that we need.

Jodie Anderson: So yeah, the easy answer is, we don't have that at the University.

Heather Nicol: Okay. Now there's a there's a question from Jessica Cook, and it's she says, I love how you started your presentation with discussing the Indigenous food history of the land is there much collaboration with Indigenous food systems and communities, and the general Alaskan farming system, or any collaboration on wild growing, harvesting methods that might be researched.

Jodie Anderson: Oh, fascinating question, Jessica. Thank you.

Jodie Anderson: let's see. So to answer your first question about Indigenous food systems in communities in general Alaska farming system. Unfortunately.

Jodie Anderson: there hasn't been a whole lot. And the good news is that's changing. We now have

Jodie Anderson: tribes who are really pushing a more of a Western farming concept, and they're growing a lot of their own vegetables throughout the summertime to supplant their fishing in the fall time.

Jodie Anderson: We have large

Jodie Anderson: tribal groups. So kind of regional tribal groups who have hired agricultural specialists, and they're doing they're doing Indigenous agriculture.

Jodie Anderson: Or

Jodie Anderson: they're doing agriculture, which is really cool. And so that's beginning to happen. And and as as there's more success with our Indigenous leaders and our Indigenous communities, then then others are like, oh, we could do that, hey, we could do that. We have

Jodie Anderson: a very active food policy council that's across the State of Alaska, and that Food Policy Council works really hard, bringing all the players together, and not just the farmers, which

Jodie Anderson: generally aren't our Indigenous folk. So there are. There's the Alaska Farmers Market Association, and that has really crossed over into the Indigenous agriculture communities way more so than kind of that traditional farm bureau group. That's your normal, you know. You kind of your old fashioned farmers, if you will.

Jodie Anderson: So it's starting to happen more. And I'm really excited because there is success, and there are collaborations, and we are reaching out and saying, can you help us figure this thing out, and they're reaching out and saying, Can you help us figure this out? So we are working across the way, which is great. Finally.

Jodie Anderson: And in terms of wild food, growing and harvesting methods being researched.

Jodie Anderson: there's ethnobotany. That is a course opportunity. It's a

Jodie Anderson: certificate program at one of our remote campuses. In Bethel, Alaska. It's it's through that at UAF and

Jodie Anderson: there's not a

Jodie Anderson: research hasn't really crossed into that line very much yet. I think that's a little more scary than the ag component than the research side of the traditional things.

Jodie Anderson: That being said when I was director here at this farm I worked with the Alaska native heritage. Sorry the Alaska Native Tribal Health Consortium. They have a hospital. It's huge. There's a hospital in Anchorage, and all of our Indigenous people

Jodie Anderson: can can go to that hospital for medical care across the State, and they had their executive chef believed that healing began with how you ate and what you ate, and so she used to say, there's no green jello in my hospital, and she's right. And so she would have Indigenous food

Jodie Anderson: at the hospital and always had fish head soup always

Jodie Anderson: so any elder at any point, anyone who wanted fish, head soup could have that. And even our our folks that have dental problems can consume that. And that's where there's remembrance. There's home. There's healing in those foods. So she and I have worked together a lot on projects, and she has brought several of her folk out here to the farm, and they've done.

Jodie Anderson: We just we call it that. We let them become weed, because in in our definition, a lot of the plants that they're looking for are our weeds.

Jodie Anderson: And so they're looking for Lamb's Quarter, and they're looking for Yarrow, and they're looking for, you know. Think you know, a wild chamomile pineapple weed all of those sort of things they when they walk around, they're just like Whoa, and they see medicine. And they see they see healing. And we're just like, yeah, you can have all those weeds. We don't care. So they would come out and harvest

Jodie Anderson: on site and we also would grow. We we're still growing Tlingit and Haida potatoes.

Jodie Anderson: and then we grow

Jodie Anderson: Oh, about 100 plants of each each year, and then they come out and they harvest it like she brings her chefs out, and they all harvest them, and then they use those potatoes that are important to southeast tribes in their Thanksgiving meal. So it's just really it's it. There's those

opportunities that we're doing. And then there's also some just really cool things that are happening with several different tribes across the state.

Heather Nicol: Super.

Heather Nicol: Thank thank you, Jodi. I think I I don't see.

Heather Nicol: I think that's that we're on our last question. And we're just. We've just come to time. So I want to thank you so much for for your presentation this evening. It was. It's wonderful. And you know it's it's it's

Heather Nicol: it's you remind I'm a geographer. So so you know, this is just great. You reminded me of why I enjoy geography, you know, and the maps and and and understanding. I mean, you have to start with soil right to understand how all of the system works, and I love it because you know, we sometimes

Heather Nicol: when we, we talk about the North and the circumpolar world, we we zero in on certain topics, and we totally ignore others. And of course, you know, this is how this is how people survive. And you know it's it's it's tourism. It's the the country foods, the hunting and gathering, and then the tourism. Excuse me, it's agriculture and country foods and hunting and gathering tourism is our next talk. I'm going to raise that in a second. But and it's just, you know, the

Heather Nicol: the day-to-day things that really make life possible in Alaska, and the kind of work you're doing is fascinating. We just don't hear enough of it. So I want to thank you so much for your talk tonight. It was fascinating, and to say to folks that are here and invite you, Jodi and folks from Fairbanks as well.

Heather Nicol: and Anchorage, who are on the call, or anybody who's interested, that our next talk will be February 24th and we'll be talking with folks from Adventure Canada, which is, we're looking at at tourism tourism in the way that you talk about agriculture, you know, really the context and the importance and the interlinkages.

Heather Nicol: And I want to thank you so much for sort of starting us on this adventure in 2025, you know, of really trying to understand the backbone of economies and and way people live, and the interconnections between, you know, settler and and Indigenous

Heather Nicol: systems in the in the North. So thank you very, very much. And thank you all who were on on the call today. Lots of great comments. You know this is awesome. Everybody appreciated the the talk so, and thank you, Cathy, for your in intrepid management of

Heather Nicol: of all of this, and you know, facilitating the the zoom for us tonight.

Jodie Anderson: Well, thank you.

Jodie Anderson: Thank you so much for allowing me to come and the next one looks pretty exciting, so.

Heather Nicol: Yeah. Well, come, come with us. Yes, oh, yes, here we are, Expedition Cruising in the Canadian Arctic, and we'll get you there for that. And, Jodi, we'll see you this summer, I think, when we're some of us, or this this spring, when some of us are up.

Jodie Anderson: Awesome. That'll be great. I look forward to it. Thank you. Everyone. Be well.

Heather Nicol: Thank you. Everybody.