>> Hey, Wyoming. Welcome to the Lawn and Garden Podcast with the University of Wyoming Extension specialist Jeff Edwards and co-host Jerry Erschabeck. Originally aired on KGOS and KERM in Torrington, Join Jeff, Jerry, and all their special guests as they talk all things gardening in the great state of Wyoming, from plant variant, to weather event, to pesticide, and pollinators. Our Lawn and Garden Podcasts helps you

improve your home garden as well as your small acreage. Let's welcome Jeff Edwards, Jerry Erschabeck.

- >> Hey, everybody. Welcome to the KERM Lawn and Garden program. I'm Jeff Edwards, along with Jerry Erschabeck. Good morning, Jerry. How are you today?
- >> Hey. I'm doing good. Thanks. Can we talk about the weather for a minute? >> Yeah. It's been awesome, hasn't it?
- >> [LAUGHTER] First of the week, 101, 2, 3, 9 [OVERLAPPING]
- >> Then cooling off nicely.
- >> Cooling off nicely.
- >> Maybe a little precipitation in there as well.
- >> Hope so. Hope for more. >> Exactly. Say, our guests today, we have two guests, we're doing something a little bit different. We are starting with Kerry [inaudible 00:01:16]. She is an assistant professor from University of Wyoming. Good morning, Kerry. How are you?
- >> Good morning. I'm doing great. How are you?
- >> Great. Good to have you on the program today.
- >> Thank you. I'm excited to be here.
- >> We are excited to have you. Then, our other guest is Jenna Meeks. She is an assistant research scientist for the University of Wyoming. Good morning, Jenna. How are you?
- >> Good. Thank you.
- >> Good to see you, and good to have you with us. Today's program or at least portion of it, we'll see how it goes, we'll be talking about the field research station out at lingual and the events that are happening there. But before we do that, let's take a few minutes and listen to our sponsors and we'll be right back after this. [MUSIC].
- >> This Summer Wyoming First Lady Janine Gordon's Wyoming Hunger Initiative is a insulin nutrition program and the University of Wyoming Extension are partnering to launch a program called Grow a Little Extra. We invite you to join us in Growing a

Little Extra to donate fresh produce to local anti-hunger organizations that support our neighbors facing food insecurity. Stop by your local extension office to pick up your free seeds or donate extra from your garden harvest. For more information, visit www.nohungerwyo.org/grow.

- >> Good morning again, everybody. This is Jeff Edwards and Jerry Erschabeck, Golan with Kerry Everly and Jenna Meeks, and let's just dive right into this. The research station for the University of Wyoming is getting ready to have a field day, the 25th of August. You ladies have been volunteered to discuss some of the [LAUGHTER] things that are happening out there, so if you could I don't know which one of you would like to start out, but Jenna, I'm guessing you would like Kerry to start, is that correct?
- >> [LAUGHTER] Sure. That sounds great. [LAUGHTER]
- >> Called me out on the spot.
- >> Kerry, this is your time. Let's talk about things that are happening out there. Where would you like to start?
- >> Well, I guess we can start with the Field Day since that's what you lead off with. The Field Day it's something that we do every year and last year we were not able to because of rules about public gatherings, but this year we're back on track and what we try and do is host a open house where we invite the community in to show them what we've been working on, what kind of projects are going on at the station.

The researchers who are working out at the experiment station at Lingual are there as well as undergraduate and graduate students who have research projects. We really try and present the different things that are happening partially to provide some education for those who may want to use some of that research on their own farms. Then also, because we're a public facility that is supported by our state and our community,

and we think it's really important to be transparent and have people come out and see what we've been working on. [OVERLAPPING]

- >> Sorry to interrupt, but this open house is open to every one, right? It's egg producers, it's the general public. Anybody who has an interest in what's happening out at the research station.
- >> Absolutely. It is open to anyone with any background of any age. We do host a dinner, so that's one great motivator to come up and see us. But this year we focused on agriculture at the station, but this year we're going to be featuring some horticulture projects. The station put in a new fruit orchard this year, and so that's going to be one of the stop step people can come and see and learn more about. We just finished building

our new high tunnel or geodesic dome, which one are we calling it, Jeff?

- >> It's a Geotunnel.
- >> A Geotunnel. [OVERLAPPING]
- >> It's a hybrid [LAUGHTER].
- >> It is, because most of the geodesic things are domes. This one is long and skinny. It looks like a loaf of bread. [LAUGHTER]
- >> One of a kind first in the state, right?
- >> It is the only one.
- >> We will have that featured as well and then of course all the different agricultural research that's going on out there. >> Kerry this is not really a loaded question, but what's the coolest thing you're working on out there? You personally.
- >> Me personally?
- >> What do you enjoy the most about all the different things that you do?
- >> I work on alternative crops or new crops for the area, so things that we don't commonly grow and my research is trying to figure out if maybe we could grow them here and make money on them. I have two projects that I really am excited about. One is on sun hemp, which is a forage crop and that is going to have two posters on it as well as a field stop where people can actually see the crop.
- >> Though as a forage crop it can be fed to livestock or grazed.
- >> Yes. It can be both fed or grazed. We have done a feeding trial with it where we had it last year, and then over the winter we did a steer feeding trial which people can learn about when they come out. Then hopefully, in the next couple of years we'll be able to do some grazing trials with it. That's a fine exciting project that I really like working on.
- >> Is that a regular hay cutting procedure and bailing?
- >> It is kind of. It's something we are still learning about. It's a tropical legume crop and it's fibrous, which is why it's got the word hemp in it, so when you cut it, the leaves tend to get really dry, really fast, and so leaf retention in the hay is something that we still need to figure out how to optimize. But in our first year cutting and bailing it, I think we still had a protein content of 16 percent in our bails,
- still good protein, good nutritive value in it. We're hoping that as researchers we will be able to continue to learn and perfect the harvest methods for the crop in Wyoming and help our growers really be able to maximize their production with it.
- >> Kerry, is this a really tall crop?
- >> It can be, yes. I have been growing it for, this is my fifth year now. Here it gets to

about five feet tall from what I have seen of it. Down south where it's more commonly grown as a forage crop, it can get to 7, 8, 9 feet tall, but we don't have the same growing conditions as they do in Florida. [LAUGHTER]

- >> It certainly feels like it this year with 100 degrees.
- >> [LAUGHTER] I'm surprised it hasn't gotten taller this year with how hot it is, but that lack of humidity and that water demand on the crops just even with good temperatures can affect how well they grow.
- >> Probably the cooler nights have something to do with it too. Is this a once and done crop or will it re-grow, you can only harvest it once?
- >> It is a once and done crop. It's a crop that we're going to plant in the beginning of June, and then part of the research we're doing is figuring out when the best time to harvest it is to maximize the tonnage and maximize the nutritive value that you get off of it. Because the later you harvest it, the more you get, but the value may not be what a farmer wants depending on what their livestock production is that they're trying to [OVERLAPPING]
- >> Sure.
- >> Kerry, can I ask a question?
- >> Yeah. You guys can ask questions of each other, that's allowed.
- >> Sure. I suppose.
- >> Kerry, can it be grazed in the field?
- >> It can be grazed. Again, there's a lot of information on how to feed it that is anecdotal. There's not as much published, replicated science that really lets us be confident in making recommendations. When you read extension bulletins and blog posts from down South where they do grow it more, it's commonly grown as a cover crop and it's mixed

in with some other crops like maybe sorghum or corn, and then they'll graze it early and till it under, before they plant their next crop. For here in Wyoming, we need to figure out if we're going to graze it. Again, when do you need to graze it? We need to be sure that bloat isn't going to be an issue and that the mix in the graze and the pasture is going to be appropriate. Then because those stems can get really thick,

we need to be sure that livestock will actually eat it in the field versus in the ration. [OVERLAPPING] Lots of questions still.

- >> Yeah, I still have questions too. [LAUGHTER]. Not to be stupid, but is this a legume-type crop?
- >> It is a legume.

>> Okay.

>> It is a tropical legume. That means that in theory, it should be able to bring nitrogen into the system. Legume crops like alfalfa or beans or peas. The way they work is the roots form a relationship with the bacteria in the soil and in that relationship the bacteria gets photosynthetic sugars from the plant.

The plant gets nitrogen from the bacteria. The bacteria is able to take nitrogen out of the air and convert it into a form that the plants can use and plants cannot do that themselves. When we have legumes in a rotation, you should be able to add nitrogen to your system without having to actually pay for fertilizer. Which is one of the reasons that we really like to have them in an agronomic rotation, because it takes some of that fertilizer burden

off of the farmers. We don't know how well sunn hemp will form those relationships here in Wyoming. That also is something that we are trying to understand and figure out what the project.

- >> Cool. Very cool. Jerry, did you have any more questions?
- >> Oh, yeah. [LAUGHTER] I've seen and so the word hemp doesn't necessarily mean that it's like any other hemp crop because when I asked if it was tall, I had watched a video of the tall hemp being cut and they had two cutter bars. One was just like the old cutter bar for hay down on the bottom, and then another cutter bar was up here about four foot.

I was curious as to how we were cutting it and getting ready to process. >> Yeah, that's a good question. I guess to step back. Not all hemp is cannabis hemp.

>> Wow.

>> A lot of times recently with the changes in the farm bill and everything. When people hear the word hemp, you think industrial hemp which is related to cannabis. This is a completely different crop genus, species, has nothing to do with cannabis, has none of those regulations associated with it. Growing it is not going to be something you have to apply for permits for, but it is still a fiber crop.

If it were allowed to get to its full height, you're right, Jerry. You would need a different harvesting system than what we would use for swapping alfalfa or wheat crop. When we ate it last summer, we intentionally did it when the crop was 3.5, 4 feet tall.

- >> Oh, yeah.
- >> We based it on trying to evaluate what our swatter could handle and that's how we made the decision of the timing to go in and harvest that crop.
- >> Does it still bloom? Is it a blooming crop?
- >> It does bloom. Oh gosh. [LAUGHTER]. Now, I'm having a mental forgetful

moment. It's a long day plant, I believe. In order to bloom, it needs to see a certain period of day length.

Above a certain latitude, it takes longer for it to bloom and it doesn't set seed. In our growing region, we do see flowers which are pretty, but I have yet to see seed set on that crop. Which in some ways is great because we don't have to worry about volunteers. We don't have to worry about it becoming invasive. The genus that it's in, some of the other species can

have some toxicity to their seeds. When we're talking about livestock feeding, it's just better if we don't have to deal with the seeds at all [LAUGHTER] and just completely remove that from the realm of possibility of them adjusting them. The problem is, it's hard to get seed for it. Right now I get seed from Green Cover, which is in Nebraska cover crop company. But they get seed from India. There's in the South at

Auburn and the University of Florida and then the USDA. They all have breeding programs that are working on trying to get rid of that day length sensitivity so that we can improve the seed sources we have available in the US and we can actually produce our own seed, hopefully making it cheaper to purchase for farmers.

- >> Yeah.
- >> Any idea when that research might come to fruition? [LAUGHTER].
- >> I think the USDA has one variety that they have released, and I think the University of Auburn has two or three. But it's still hard to get those named varieties. They haven't ramped up the production of them fully yet.
- >> Okay.
- >> Kerry, since it's a fibrous crop, is there another market for it other than as a feed source? Could it be rope, furniture, clothing?
- >> It absolutely could be and it is used for that in other countries. India, where it's more commonly grown, they will use it for a fiber crop to produce different products. Here our fiber industry is not as flexible to take on new sources of material. Really the intention of the project is trying to find an alternative for livestock feed.

In the summer months, if you think about the hailstorms that we get or late freezes where you might lose a corn crop or a bean crop early in the season and you need to replant. This could be a crop that could come in and be a rescue crop where you're going to be able to put it in June and get three or four tons of essentially alfalfa quality hay off of it that you can then use to supplement.

Versus the annual warm-season grasses that we're planting at that time. Where you're getting a grass feed value instead of a legume feed value. The nutritional content is just a little bit different. We're really focused on the livestock use of it.

- >> Very cool. Jenna, I feel like we're leaving you out. [LAUGHTER].
- >> I think she's working, actually.
- >> We're leaving you out of the conversation.
- >> I'm picking mud out of my shoes, so if that's worth Kerry, then sure. [LAUGHTER].
- >> Both of you are assisting with the field day, I'm making that assumption, correct? Are there other things, Jenna, that you would like to share about the field day that people need to know about? [LAUGHTER]
- >> One research project that I'm helping with, I guess that our lab was working on this year has been an interesting full circle project where it started out with looking at shade avoidance in sugar beets. We wanted to determine what type of weed pressure can sugar beets withstand before they germinate and how much shade basically from weeds or a cover crop can they tolerate?

We've found obviously, this is not new to anybody necessarily is that if their shade and there's competition for sunlight, those plants get really tall and spindly rather than wide and cover a lot of soil. Over the years, what we have tried to do then is take that principle and get our dry bean height higher so we can have less harvest loss with direct harvest of dry beans.

Instead of the traditional methods, we would use direct harvest, and then try and get those pod heights a little bit higher. Instead of relying solely on different varieties, if we can move the bean pod higher, purely due to competition with other plants and intentionally planting cover crops like wheat and get those bean pods a little bit higher. We've done that and we've gotten the pod height higher. We had some harvest loss though. Now we're seeing what type of

weed suppression we can get to overcome the harvest loss. Can we spray less herbicide then if we're out-competing the weeds in the beans? We took the detour with the beans to then also answer the same question with the sugar beets and if we have winter wheat planted before our sugar beets go in, can we rely less on herbicides to control early season weeds in

sugar beets and how some competition there with the weeds. We could compete with the wheat or a cover crop typically wheat and then we would rely less on our early season herbicides and then maybe only do one application and later in the season of roundup with our sugar beets. We're using these various crops to answer various questions and it takes a couple of seasons. We will have this stop at the field day with the beans and

the pod height's going higher on beans. This year at the field day, the beans study has progressed enough that we will now see a difference in weed suppression on the cover crop, and it's just the first year for the beats that we're looking at wheat suppression for the beets. That one isn't as interesting to look at because we are still

working on a timings for those. We're also trying. In our lab, we look in a lot of weed science research, but that doesn't necessarily mean we only look at herbicides.

- >> Exactly.
- >> Can I ask a question? I'm going to hop in. Jenna, one of the questions that weed scientists always ask me when I do work with cover crops is, what is the difference between having a cover crop or a weed in the plots? If they're doing the same thing, which is covering the soil and competing with the crops in the field? Why is having a wheat cover crop a better option

than just letting your weeds go early and then spring those out when you don't want them in there anymore?

>> In ours specifically, it would be uniformity and timing. If we plant wheat in the fall or even if we were able to get it in early in the spring, it should be suppressing the weeds enough and we have better control options for wheat. If it gets out of control, [LAUGHTER] it's a little bit easier to manage than say if we have a two-inch tall Kochia one day and

then two-foot tall Kochia the next week. I think we can predict a little bit better. There's also more uniformity and we don't have as many different species. With weeds, even within the one acre study areas that we're looking at, we do have a lot of diversity even on half of the study area, it might be all grasses and it might be Kochia. Then in one corner, we have a bunch of lambsquarter. To try and manage the growth of that,

so we're not necessarily outcompeting weeds with other weeds, there are just going to still be weeds.

- >> Because I'm going to tell you if you need another plot, our garden is primarily a weed base. We go down the aisles in the rows with the weed eater. I can see your idea quite clearly with the wheat because it would be easier to manage and maintain. What would you spray for wheat to kill it?
- >> Since it's a grass, any herbicide that works on grass should not impact. If it's applied on label, should not impact your beets or your beans. Then since beets are typically roundup ready, so they're resistant to roundup, glyphosate is a really great option for the wheat that we plant as a cover crop.
- >> But not all of your crops in your garden, Jerry, would tolerate glyphosate.
- >> Hopefully none of them. [LAUGHTER]
- >> I was primarily concerned with the weeds. [LAUGHTER]
- >> We need a different name because wheat and weeds, and beets and beans, they're really hard to say all at the same time.
- >> Tongue tied. You're doing a great job, Jenna. [LAUGHTER] I'm sorry. Go ahead,

Jenna.
>> Go.
>> If people want to attend the field day with open house or both, whatever we're calling it. We would like them to RSVP, correct?
>> Yes.
>> Yeah, go ahead.
>> It's on Wednesday, August 25th, and it starts at 3:00 PM. They can RSVP via the phone number, which is 307-837-2000.
>> One other question then.
>> Keep going.
>> What are we serving? Because some people will only come for the food.
>> Wait a minute, Jerry, didn't your mother ever tell you that that's rude to ask for supper?
>> Yeah, but if it's an open house, you go, well, what do you serving? [LAUGHTER]
>> Here's the thing, Jerry, I think it is a surprise.
>> Oh, yeah.
>> It could be hotdogs or it could be prime rib. You'll just have to come in and find out what we're going to serve. Also, I don't know. [LAUGHTER]
What we can promise you is that Kerry and I are not cooking. That'll be worth coming for, yes. [LAUGHTER]
>> In the past, we've had ice cream truck show up, haven't we? Something like that.
>> We have but they're booked this year which I shouldn't put out because that may deter some people. I know we have another dessert option that is [OVERLAPPING] coming in, but unfortunately, that ice cream truck is booked, which is great for them and their business. We're always happy to see businesses be busy. [OVERLAPPING]
>> Successful.
>> Yes, absolutely.
>> Very good. Jerry, it would be dinner and dessert. But you got to be there to get

>> You got to be there. [LAUGHTER] You can't have somebody else pick it up for

you. [LAUGHTER]

- >> Exactly. [LAUGHTER] Yes, you have to show up.
- >> Jenna, earlier before we started the program, you had mentioned you've been out checking beets. Is that correct? Something about beets, working in beets, doing something with beets? [OVERLAPPING]
- >> Yeah.
- >> Was it related to the trial that you were speaking about?
- >> Yeah. We're doing somewhat of an early harvest just because we're not going to harvest them necessarily for [OVERLAPPING] sugar. We just need the biomass to see how much our cover crop, which was wheat, impacted our biomass and it is interesting to see. I'm up here in Powell today doing that, but it's a similar study that we have in Lingle as well.

The plots that had wheat in them, have significantly less weeds. It's encouraging to see. [NOISE] It just depends how much biomass we're losing [OVERLAPPING] due to the wheat.

- >> Just for my personal clarification, you're talking of cover crop. You went in there either last fall or this spring and planted wheat. You're not relying on wheat straw from last year's harvested crop, are you?
- >> Correct. Over the years, we have used stubble. We use stubble at various heights and then plant it into stubble. But what we're finding is, having a green crop impacts the shade avoidance more than just having [OVERLAPPING] stubble. The crop that we're looking at, beets or beans rely on this interference of

red to far red light and what that ratio is. The reason that ratio gets impacted, and it sends a signal basically to the crop that we want, is if there was another green crop there. Plants are actually pretty smart and they can tell if there's still a seed in the ground and they're not getting the far red to red ratio that they need of that light spectrum on that seed, they won't germinate. We're trying to manipulate how that ratio

a little bit with our cover crop.

- >> Jerry, you look fascinated.
- >> I am. I was just remembering some of my own history. Long ago and far away, we used to grow a lot of pumpkins and we'd even sell them at our house commercially. One-year I asked this friend of mine that ground hay, and ground straw. I said, "Hey, can you grind some straw for me?" He says, "Sure." I said, "I'm going to put this out and I'm going to put my pumpkin plants.

Then before I plant, I want you to throw out some ground straw." He says, "Sure, I can do that." Well, unbeknownst to me, straw contains wheat seeds. Along with my

pumpkins coming up, wheat was starting to come up as well. I got all excited and got down on my hands and knees and started pulling wheat. Listening to Jenna, maybe I shouldn't have done that. Maybe my pumpkins would have done just as

well with a little competition. [OVERLAPPING] I think this stuff is amazing.

>> Plants are really interesting. I think if you have the time and the ability to pull the wheat to save your pumpkins, I would still go for that option. [LAUGHTER] Some of the overarching motivation to look at other control options other than herbicides is, some herbicides are not going to be effective for much longer or as effective as they have been.

What we might find, Jerry, is that if you were ready to pull the wheat in your pumpkin patch, everybody else might start to have to pull their weeds too. [LAUGHTER] If herbicides aren't used properly and effectively, we will have to seek other options. I for one hope I'm not around when hand pulling is the only option because it's daunting. [LAUGHTER]

- >> Well, I will tell you that that's the first time I got to see a mother spider carrying her babies. [LAUGHTER] I was under the canopy of my pumpkins and there this mother spider was, fairly close to my eyeballs and I screamed and my wife says, "What are you doing?" I said, "Oh, nothing." I just stuck my finger. I didn't dare tell her because she would quit pulling weed as well. >> I think that would be the general consensus.
- >> But there maybe a day [OVERLAPPING].
- >> You don't have to spray for the spiders and then go pull your wheat.
- >> I think the spiders were somewhat of a pollinator.
- >> No, not a pollinator. They're eating the bad bugs.
- >> Eating bad bugs. But don't they get pollen on them as well and they crawl around?
- >> They might, but they aren't very effective.
- >> Not effective.
- >> Looking for the best way to keep up with all the news from University of Wyoming Extension, the College of Agriculture, and Wyoming Ag Experiment Stations? The uwagnews.com website features real-time education, research and extension events, and feature stories from across the state and subscribe to our monthly email newsletter. Bookmark, uwagnews.com today. Uwagnews.com, growing people, knowledge and communities.
- >> This is Jeff Edwards and Jerry Erschabeck for the KERM Lawn and Garden program. Our guest today are Kerry Eberle and Jenna Meeks from the University of Wyoming. They've been sharing with us things that are happening out at SAREC and

they are getting ready for the field day/open house that's going to happen out there. We have more things that we'd like to discuss with them. Jenna, I know that you had a question for Kerry, so fire away.

- >> [LAUGHTER] Kerry you and I have visited about this before it I think you do a great job of explaining the rationale for why SAREC exists. [OVERLAPPING] Go ahead, Jeff.
- >> Before we actually start speaking SAREC, since we've been talking about the research station. Why don't one of you explain what SAREC is and why we call it that.
- >> Kerry, I can do that if you want.
- >> Go for it.
- >> [LAUGHTER] SAREC stands for the Sustainable Agriculture Research and Extension Center. SAREC is one of the research farms in the Ag Experiment Station for the University of Wyoming. There are four research stations throughout the state. There's SAREC, which is located in a Lingle. ShREC, which is in Sheridan [LAUGHTER] aptly named, Sheridan Research and Extension Center. There's the Powell Research and Extension Center, PREC.

Then there's LREC, which is the Laramie Research and Extension Center. SAREC came into existence in 2006, 2007. We design outside since 2006. SAREC came into existence in 2006, named the Sustainable Ag Research and Extension Center. Partially to look at this interaction between livestock and crops and other aspects of sustainability, including the economic and social aspects of agriculture.

That was the charge of SAREC initially. We at SAREC conduct research to answer some of these overarching questions about agriculture and how to make it more sustainable into the future.

- >> Looking at the whole entire system, correct?
- >> Yeah. The systems approach, like I mentioned, we're integrating crops, livestock, economics, social viability. Not that all research stations don't also think about this and researchers think about this all the time too, is a systems approach, and incorporating multiple disciplines into a research project. But SAREC has a unique set of resources available to it to allow for that system's type approach.
- >> Then what was your question for Kerry? [LAUGHTER]
- >> Kerry, I get asked this sometimes, so I have pound this question off on you because I think you do a great job of explaining it. Why do we conduct research and what is SAREC's role in research and how is that different than some variety trials or demonstrations? I guess, why do we even do research? Answer all of those questions. [LAUGHTER]

- >> One at a time.
- >> Sure. We've got a couple more hours, right, Jeff?
- >> Yeah, sure.
- >> I guess first, I'm going to plug our Field Day again in this talk about research stations and why we are there, and what we do. At our Field Day this year, Dr. Eric Webster is going to be there and he is the new director of the Ag Experiment Stations for Wyoming. Some of you may have known Bret Hess who was in this position previously and Eric Webster is the new person. If you're very interested in

Ag Experiment Stations and what their charges, you can come and interrogate him as much as you want at the Field Day [LAUGHTER].

- >> He'll love that.
- >> Yes
- >> He expects it.
- >> He does, yes, so come and ask him difficult questions. Remember, you're paying his salary so you are welcome to ask him as many questions as you want to. As far as why SAREC needs to do research or why the university needs to do research. The University of Wyoming is a land-grant university. As part of that, we are charged with surveying the ag community and the citizens of the state

as far as agricultural education. There are many different groups that do agricultural research, so you have industry who does very well funded agricultural research related to seed and product development and chemical development, new chemical formulations that is really driven by their product stream, and delivering those products to the farmers.

You have the United States government so the USDA, the ARS, that does other types of agricultural research that's a little more similar to what we do in the university sector. Our stations and the land-grant stations are really designed to serve their state in their regions specifically. We're trying to conduct research that is directly applicable to our stakeholders,

that we're going to be able to help make the state more successful and deliver answers to growers that they need. The difference between what the university does and what say in industry partner would do is we are doing more foundational and discovery research. Jenner was talking about her project with wheat as a cover crop and shade avoidance in sugar beets

and dry beans and how you can use that to try and improve the pond height of dry beans to improve direct harvest. That's not something that you're going to find at your local seed dealer on their farm, where they're doing variety trials or showcasing how new precision Ag works. We're doing the groundwork and discovery on things

that there might not be money in it for a company to make, but it still could be beneficial to farmers and we don't know the answer to the questions that we're asking. We're trying to ask noble questions and find the right answers to them, versus just testing something that has already been heavily researched. We do sometimes do things like variety trials, where we will put out different driving varieties,

or wheat varieties, and when SAREC or the university does those, it's really that we're trying to be an impartial party in delivering the information to the growers. If we do a variety trial, we may have 20 different varieties that are from four different universities and six different companies and we're putting them all in the same trial and when we get the results, we say, here's the information

and we give it to everyone. That may not be true if a private company is doing a variety trial and they don't have the same requirement to show all the data as we do. It's an impartial source of information, where we don't have a horse in the race [OVERLAPPING], we're just trying to get the information and have it be as correct as we possibly can,

and provide it to the stakeholders to make sure they can do. It's a little bit twofold, there's that impartial component and then there's that noble discovery aspect of the research.

- >> Kerry, what I think is so cool is that, hey, if you're a young farmer or an old farmer or whatever kind of a crop grower you are, hey, you guys already done it, been there done that, hey, that doesn't really work so good around here, but this does. I think that's just a super idea.
- >> Yeah. Sometimes the university and research move slower than we would like it to because we like to be really sure in what we're telling people. Oftentimes I interact with farmers and you'll hear a story of oh, I planted my wheat behind some sunflower last year and my yield was twice as much and I didn't have any soft light. I'm making this story up. It's not true, please don't [LAUGHTER].
- >> Please don't do this [LAUGHTER].
- >> Not that it would be bad to plant wheat behind sunflower, but you'll hear something that worked well for a grower and you want to follow up on it and see if you can repeat it. But for us we have to do that at least two years, if not more, before we're confident in recommending something to growers so we try and be, well, we're slow sometimes like you guys had so many questions about the sun him project and I would love to have all the answers right away.

We do try really hard to be sure when we get the answers that they're correct in here what we're telling people. So we're always happy to troubleshoot, we're always happy to discuss ideas and let you know what we've seen, and provide as much information as we can. Sometimes we have really good results and sometimes we hedge our bets a little bit and [LAUGHTER] then hot because that's the joy of

agriculture. It never does what you want it to.

- >> Well, and sometimes were the victim of what our growers are too, nasty hail problems, water issues, those types of things we're dealing with it too.
- >> Right.
- >> Yes. Great. Jerry, any other questions for these two ladies?
- >> I think not, but it's one of those deals that if you have these words to say, we'll get them next year, Frank. Well okay [LAUGHTER]. I always said that about my garden, we'll get them next year [inaudible 00:44:28] and so there's always that kind of hope and promise that maybe next year will be better. It's good that yphttps://www.uwyo.edu/uw/news/2010/01/new-director-at-uws-wyoming-agricultural-experiment-station.htmlu have research to back some of that stuff up and instead of just folklore.
- >> [LAUGHTER]
- >> Yeah, we try and avoid the folklore in our research. That is for sure.
- >> Perfect. Well, ladies, thank you very much for joining us today. We appreciate taking the time to share your knowledge with us and if one of you one last time would provide information on how to attend the Field Day open house, that would be great.
- >> The Field Day at SAREC is next Wednesday, August 25th. It starts at 3:00 PM. If you are able to RSVP, we would appreciate that, but it is not required for attendance so if the day comes and you're 2:30 and wondering what you're going to do for the rest of the day, come on out at three o'clock, even if you didn't call, that's fine. But if you can't RSVP, the number is (307) 837-2000 and if you don't show up at 3:00,

but you want to show up at 4:00 or 5:00, that's also fine as Kerry months you will have some dinner, some posters you can look through, and some presentations. We have a keynote speaker, but there's also some other speakers happening and ulterior around the farm. Just show up when you can where you're interested. Again, August 25th starts at 3:00 PM. It's 2.5 miles west of Lingle. Google Maps actually takes you there, it doesn't take you to middle of nowhere, so Google Map University of Wyoming SAREC

- 2.5 miles west Lingle next Wednesday, August 25th.
- >> Perfect. Thank you. Thank you very much.
- >> Check out our Facebook page. [OVERLAPPING]
- >> Follow us on Facebook. [LAUGHTER]
- >> Yeah.

- >> Perfect. Jerry, are other things going on this weekend that we need to talk about?
- >> You know, I don't have a thing.
- >> Really?
- >> I'm sure there is. Yeah, because this time I don't have anything. But I'm sure that there's something, I'm just going to enjoy this weather that we're having and maybe go out and cut the lawn.
- >> Perfect.
- >> Because I think that that probably is going to be one of those things that will be most enjoyable with a lower temp.
- >> Exactly. Sounds good. For all of our listeners out there, thank you very much for joining us.
- >> You've been listening to Morning Garden with University of Wyoming Extension specialist Jeff Edwards and co-host Jerry Erschabeck. Look on each week for details on new events and how to make your garden flourish. Good day and happy gardening.