**Female Narrator:** [00:00:00] Welcome to the lawn and garden podcasts with University of Wyoming extension specialist Jeff Edwards and co-host Jerry Erschabeck. Originally aired on KGOS and KERM in Torrington. Join Jeff, Jerry, and their special guests as they talk all things gardening in Wyoming. Our Lawn and Garden podcast helps you improve your home garden or small acreage. [MUSIC]

**Jeff Edwards:** Good morning, everybody. This is Jeff and Jerry for the KGOS, KERM Lawn and Garden program. Our guest today is Coleman Griffith. He is a gardener, amongst other things in Fremont County, Wyoming. We'll be chatting with him when we get back after a couple of words from our sponsors.

**Female Narrator:** You are listening to the Lawn and Garden podcast presented by University of Wyoming extension, extending the land grant mission across the state of Wyoming with a wide variety of educational programs and services. Visit us at wyoextension.org. [MUSIC]

**Jeff Edwards:** Okay, we're back. Good morning, everybody. Welcome to the KGOS, KERM Lawn and Garden program. Jerry, good morning. How are you today?

**Jerry Erschabeck:** Good, thank you. A little chilly this week.

**Jeff Edwards:** Little chilly, little weird weather, yeah.

**Jerry Erschabeck:** Yeah. For as nice as it has been. I was able to get in a last watering on my ash trees, I was happy about that. Then it froze, froze pretty hard,.

**Jeff Edwards:** Yeah. It's odd that we've seen this much snow so far this early this year.

**Jerry Erschabeck:** It is November. [LAUGHTER]

**Jeff Edwards:** Yeah, but we started back in October seeing snow.

**Jerry Erschabeck:** When was the first really bad frost? Wasn't that September?

**Jeff Edwards:** First week in September, I think. Yeah.

**Jerry Erschabeck:** Then it turned beautifully.

**Jeff Edwards:** Yeah. I think we're in this every other week a rather nice weather pattern.

**Jerry Erschabeck:** I'll put it on my schedule. [LAUGHTER]

**Jeff Edwards:** [LAUGHTER] Hey, before we get too far, I'd like to introduce Coleman Griffith. Good morning. Coleman.

**Coleman Griffith:** Morning, how are you guys.

**Jeff Edwards:** We're great. It's good to see you. We're glad you could join us this morning. We're going to spend time talking with you about how you garden in Fremont County.

**Coleman Griffith:** Yeah, I appreciate that. Thanks for having me on. Yeah, I can tell you that I have a high tunnel and it was a lifesaver. We got that snow in September and I got more tomatoes after that snow than I did before.

**Jeff Edwards:** Yeah. Diane and I just had our last tomatoes this week, which is nice. Used to work with the horticulturist at the extension office here and his goal every year was to have fresh tomatoes at Thanksgiving. We almost made it.

**Coleman Griffith:** A little ambitious for Fremont County.

**Jeff Edwards:** Yeah. The high tunnel thing, extending our growing season, we talk about it a lot on the radio program. I think Jerry has to get [00:03:00] some form of season extension for his garden yet.

**Jerry Erschabeck:** Something, I don't have anything yet. I'm going to put some hoops on my raised beds.

**Jeff Edwards:** Okay. What do you got for it?

**Jerry Erschabeck:** A little something, yeah. Some sort of plastic.

**Jeff Edwards:** Okay. I can point you in the right direction if you'd like.

**Jerry Erschabeck:** Well, I was hoping that you might be able to influence.

**Jeff Edwards:** Certainly, we can do that. Coleman, how large a space do you garden in? I know you have an outside garden as well.

**Coleman Griffith:** Yeah. We have a property on the edge of Lander. We're just under an acre and it's a homestead style, pretty intensive. I have maybe two-tenths of an acre that's fenced off as in ground garden space. We have chickens, rabbits, ducks, and bees, and then we have a 12 by 24 foot high tunnel, and then some edible landscaping and orchard plantings and some shade tolerant deer resistant landscaping. They're edible, scattered throughout the rest of the property. The goal is to get enough to feed my wife and I out of it without having to turn the whole thing into an industrial operation. We've toyed with the idea of doing the market garden thing with it, but what I've learned over the couple of years is there's a really big gap between too much for the two of us to eat, and enough to actually make it worthwhile to make it a part-time job, so we're at medium.

**Jeff Edwards:** Yeah, and allow the deer to consume everything they want, right?

**Coleman Griffith:** [LAUGHTER] They ate my rhubarb this year. I didn't think they would do that, but they scraped the leaves of three rhubarb plants. They've eaten my grapevines down to the nub end through a hog panel. They scraped my cherry tree out of existence out of spite. It blows was my mind, they're voracious.

**Jerry Erschabeck:** [LAUGHTER] My brother shares that same feeling and attitude about deer that I'm catching from you. That, gee-whiz, leave my plants alone. I'll leave you alone, leave my plants alone. He loves roses and lives just on the edge of Guernsey. Of course, a rose is just enough of a mouthful to go yum and snip it off just right at the bud.

**Jeff Edwards:** My mother lives also in Fremont County and the deer come through and eat her tomatoes all the way to the ground. [LAUGHTER]. Well, number 1, rhubarb, I would think that they would have a heck of a stomach ache eating rhubarb. [LAUGHTER]

**Coleman Griffith:** Yeah. I'd never witnessed that before.

**Jeff Edwards:** Yeah. I can't understand the palatability of trying to eat a tomato plant.

**Coleman Griffith:** I just don't understand it. My backyard is full of dogs, my front yard is like intentional dear bed. I have a beautiful stand of alfalfa in my front [00:06:00] yard. I don't think my neighbors love it well, but that's the whole idea. Is keep the deer in the front, they can eat the stuff I don't want, and then the backyard is for me. They don't respect it.

**Jeff Edwards:** This weekend I was sitting in my living room watching TV and a buck deer just ran through my front yard. [LAUGHTER] That's a little odd. I deal with them in the country, but I don't see them running through my yard in the middle of the day very often. [LAUGHTER]

**Jerry Erschabeck:** We put up a six foot fence. Granted, it's just a chicken wire fence, and it has a one by four across the top, so visually, there's a barrier. Even six foot, I think a dare could probably jump if they thought that there was something easy pecans and looked good or smelled good. [OVERLAPPING].

**Jeff Edwards:** If they were motivated.

**Jerry Erschabeck:** If they were motivated. But it has seemed to defer them to other areas of possibilities to eat.

**Jeff Edwards:** I've heard that they can clear a 10 foot fence.

**Jerry Erschabeck:** [LAUGHTER] I'm sure. If they're after something, I think that they could really clear a really high barrier.

**Jeff Edwards:** Yeah. Legs of springs.

**Coleman Griffith:** I'll tell you something that seems to help with mine. The one place I'd never have had them is in my formal garden space. You want to be able to garden, but you also don't want to feel like you live in a gulag, so you can't have that 12 foot fences. My garden space has a privacy fence windbreak on one side, and then the high tunnel is a barrier for it, and then I have some rabbit cages, and it feels like a cold sac. I know they can get in, I think that it's just psychologically they don't want to. I think they feel penned in if they get into it. If there's any wildlife biology students out there, there's a masters in the psychology of fencing out a deer so you don't have to have a giant hurricane fence to keep it out. There must be a trick to it.

**Jeff Edwards:** One of the tactics they get habitualized to, right? We talked about using dogs and the [OVERLAPPING] Irish spring, soap, garlic, those types of things.

**Jerry Erschabeck:** Motion sensor sprinklers.

**Jeff Edwards:** Yeah. They just seem to either avoid them, find another way in, or just get used to it.

**Coleman Griffith:** I have no citation for this, but I've been told they can do the 10 foot vertical, but it's a straight up, straight down. Something I have noticed is if you have a relatively mid-size fence and a hedge on the other side, they can do the vertical. They can't necessarily do the long jump. [OVERLAPPING]

**Jeff Edwards:** They can't vault the hedge.

**Coleman Griffith:** Yeah. Particularly if they can't see the other side. So there's something to that.

**Jeff Edwards:** Yeah. When we were commercially producing raspberries, I was looking at fencing them out and trying to keep deer out of them and those types of things. The articles that I was looking [00:09:00] at were actually tipping the fence 30 degrees off-center towards the out so that they couldn't just do a vertical jump and jump in. There is some evidence to support they're not able to jump distance if they're jumping high. [LAUGHTER]

**Jerry Erschabeck:** I haven't done this yet, but I think that there may be some ribbons or some plastic runners on the top. Just a flutter in the wind may also be a deterrent.

**Jeff Edwards:** Since the wind blows here a lot.

**Jerry Erschabeck:** Yeah. [LAUGHTER]

**Jerry Erschabeck:** I don't care what you do. Even the liquid deterrents, gee whiz, if they want in, gee, there are going to find a way.

**Jeff Edwards:** Yeah.

**Coleman Griffith:** About middle August, we had a run of meat chickens on our backyard and we had a portable electric fence on a charger and a deer walked into that in the middle of the night. If you've never heard a deer scream [LAUGHTER] at dead sleep at the middle of the night and I did not have a deer at my yard for [inaudible]. Of course, it jumped backwards into a clothes line and that one is not coming back.

**Jeff Edwards:** Was that one of the screened, the netting type electric fences or was it just one wire?

**Coleman Griffith:** No, it's netting. The problem we have with the chickens is that we actually lost the whole run of them this year to a neighborhood dog. It's a suburban farming, but the local dogs are a blessing and a curse. On the one hand they keep Raccoons and Foxes away. But every once in a while somebody might get in and we had one kill, 25 chickens. It Got over a fence, tore open a chicken tractor and stuck its head in and [OVERLAPPING] so we borrowed an electric fence and you figured the more coverage the better. It's just so easy to go over or under a single wire.

**Jeff Edwards:** Yeah. I've also read some things about taking a strip of tinfoil and coating one side of it with peanut butter and then wrapping it around the electric fence so that it gives the deer something interesting to smell. [LAUGHTER] But it also gives them something interesting sensation by sticky. [LAUGHTER].

**Jerry Erschabeck:** Have you ever bitten into tinfoil? That sensation alone [LAUGHTER] is pretty tough to handle. Let me just assure the listening audience that no deer were actually really hurt by having an electric fence. Coleman you mentioned the the dogs. My parents lived a mile North of Guernsey and I bought them some peacocks and some local town [00:12:00] dogs came out and killed every one of them. I was looking for something more than an electric fence that day. [LAUGHTER].

**Jeff Edwards:** Something that propelled lead is that we can talk about Jerry.

**Jerry Erschabeck:** Quit a few things that propelled bled. But of course, the dogs never came back, they go hours nothing out there to harass now. Dogs are a blessing and a curse.

**Jeff Edwards:** Just before we started, I happened across a video of a individual who was frustrated by groundhogs in his garden. He tried everything to keep them out. Finally, he decided that he would build the groundhogs their own garden and did crazy stuff to keep them out of the main garden of his. Of course, when you have one groundhog I want to continue to say, or I want to say rock chuck. It's a little bit different, correct? The one groundhog brought in a friend and those two, I think ended up developing into the groundhogs. [LAUGHTER] If you make a habitat forum, you're going to have more than just the one .

**Jerry Erschabeck:** Ask Bill Murray about groundhogs.

**Jeff Edwards:** Exactly. [LAUGHTER] Go first.

**Jerry Erschabeck:** Go first.

**Coleman Griffith:** Groundhogs, bowls, moles, they are all critters that seem to disrupt dark ground underneath our gardens.

**Jeff Edwards:** Yeah. What was it about five years ago? Voles just seem to take off and the population now I think is dropping off some. But they are really destructive.

**Jerry Erschabeck:** Not around our house. We have a lot of voles, V-0 -L-E-S victory voles, and they really do seem to aerate the soil. But it's typically if you have a weak ankle, the ground who'll give just enough as you strike your heel and then it'll turn your ankle. We've perfected the tuck and roll. [LAUGHTER].

**Jeff Edwards:** As you should.

**Jerry Erschabeck:** But we've also tried to put traps out. We've used the bait to put underneath. We've tried to initiate our cats into fishing for those voles.

**Jeff Edwards:** Do they look at you and just say," I'll get to that later."

**Jeff Edwards:** We have two of them that do and the rest of them they could care less. [LAUGHTER] But once they get to flipping it, while they're having a good time, then but thy will pounce on it. Like a fox, down center, the ground. Sure. They'll pounce and dig and maybe pull one up at the same time.

**Jerry Erschabeck:** It seems like a lot of work to catch something.

**Jeff Edwards:** Well, they're wiggly. [LAUGHTER] They make noise, they squeak. Apparently, [00:15:00] they're fun to play with.

**Jerry Erschabeck:** Keep their attention. Coleman, what's the one crop that you enjoy growing the most?

**Coleman Griffith:** I like to mess with different things. I always try out something new in different varieties. I'm a fan of hot pepper, so I grew up a different hot pepper every year.

**Jerry Erschabeck:** Try to go for the hottest one you can find.

**Coleman Griffith:** Not necessarily. I've done like the ghost pepper in the scotch bonnet, but I like distinctive flavors. Like one year I did scotch bonnet so I could put up a batch of jerk seasoning and one year I did and show so I could make a adobo and stuff like that. I tried to rotate that, been messing with Okra in the greenhouse a couple years now, much to my wife's dismay.

**Jerry Erschabeck:** What do you use okra for? [inaudible] Or just fry it?

**Coleman Griffith:** I'm a big fan of gumbo and jumbalaya and things like that. You never get enough to like make a meal with it, I am going to have like three or four plants. You get like three pods at a time. I know that I know okra is supposed to be like way more productive. My wife is from Upstate Illinois, she tells horror stories of like her dad planting Okra and it being one of those things where like you picked it in the morning and if you didn't pick it again by four in the afternoon where Okra the size of like baseball bats dangling off. I've never had that problem, but it is nice to get a handful of it, thrown in a jumbalaya or something.

**Jerry Erschabeck:** Coleman, I think Curran sneaking out in your garden and sabotage. [LAUGHTER]

**Coleman Griffith:** That's what she's doing with those deer dentures. It's not deer it's my wife.

**Jeff Edwards:** It's a deer hand puppet she's just going out and nibbling. So okra, Jerry have you ever grown okra?

**Jerry Erschabeck:** I have never grown okra. I like it fried I do like it in gumbo, if you do cook it long enough it does become a swell thickener. [OVERLAPPING] It is little slimy if you are trying to do something that does not go through a sieve well. [LAUGHTER] So yeah okra is a great plant, doesn't it grow straight up in the air?

**Coleman Griffith:** Yeah.

**Jerry Erschabeck:** All straight bush?

**Coleman Griffith:** Yeah and you on the first year like I said it's experimental and I planted them way out wide and it turns out I didn't need to do that. Yeah, you can put like five plants next to each other in a barrel and yeah, they pretty well grow just straight up there. I feel like I've seen a bushier okra plant with leaves, like the cover of the Botanical Interests packet at least shows a little bit of branching. So there must be a little bit of a trick to getting it to spread but at a high tunnel I'm perfectly happy to see stuff grow vertical.

**Jerry Erschabeck:** Yeah. Do you do most of your stuff in the high tunnel even your peppers?

**Coleman Griffith:** Like I said, I mess around with it so the high tunnel has for me two phases. It's got the winter [00:18:00] phase and the summer phase. In the summer phase I'm starting stuff in the house moving stuff in, there may be end of April maybe middle of May to give it a boost and it's things that like heat and moisture. So it's my peppers, my tomatoes, my egg plant, my cucumbers, usually a couple of melons. I've noticed that I like to do the peppers in pots because for whatever reason if I do them in the high tunnel the whole year they don't get real hot and I think it's maybe the humidity. So the peppers I do in pots and then I stick them out front June, July, August, and then put them back in to keep them alive September, October and that seems to be pretty functional for that.

**Jerry Erschabeck:** How big of a pot Coleman?

**Coleman Griffith:** Varies it catch as catch can but maybe five gallon, 10 gallons if I can do it with the Dolly. The deeper the pot, that better results I seem to get.

**Jerry Erschabeck:** I'm a fan of the cayenne pepper and I've always wondered why couldn't you grow a pepper year round if the conditions were correct? If it doesn't freeze does it have a lifespan?

**Coleman Griffith:** Years ago when I was in college I grew ghost peppers and it was at a time when it was not, I don't think legal to have ghost peppers in the US and a friend of mine from England mailed them to me and they got held up in customs and I got them in August, September. So I planted them and gotten nothing the first year, kept it alive under a lamp in my bedroom in my apartment, stuck it out the next year and did get. It was a year old plant before it gave me any peppers but I don't know I think they must go into some sort of hibernation towards the end. I've noticed as much as temperature can be an issue, it's the lack of light that really can be the hindrance in gardening this far North. Phase 2 of my greenhouse after all the peppers and stuff are done is I plant really, really cold hardy stuff in raised beds as I've taken the tomatoes out. Right now I have kale and kletonea and mache and some chard and things like that.

**Jeff Edwards:** Time out, we're time out. I have no idea what the two things after kale were. What are those?

**Coleman Griffith:** Kletonea and mache and mache is also called corn salad and they are traditional European greens, they are essentially micro greens. They're little tiny one or two inch leaves. I came across this method from a guy in Maine called Elliot Coleman, who grows year round in unheated high tunnels way far north. So the idea is you plant all this super cool, hearty stuff, let it get as tall as it's going to get. Then this time here when the sun is real low on the horizon you don't have a lot of light in the day time. It's not really growing but it's [00:21:00] cold tolerant enough that it's not dying either so it's in suspended animation and some of that stuff will freeze solid. So I can go out there when it's 33 degrees in my high tunnel in the daytime and I can cut leaves of that kale plant off and eat them. I'm essentially using the high tunnel as an icebox essentially.

**Jeff Edwards:** Cold storage.

**Coleman Griffith:** Then come, I don't know, maybe February, March when the sun comes back that stuff takes off. So I'll have bowls of salad greens end of March early April because that stuff is just a cold weather holding pattern there.

**Jeff Edwards:** Do you provide additional cover to those types of things when it's really, really cold insulated cloth over the top of them?

**Coleman Griffith:** I do have some cloth that I'll throw in there. A lot of this stuff it's incredibly cold hardy stuff. These are plants that were domesticated in Russia and the North of Poland. I'm messing with a few different Asian cabbage varieties that are from way far North, China, Mongolia stuff. The idea it's stuff that just over winters and survives. Maybe not necessarily like the Zone 3-4 that we have in lander but inside that tunnel it's a little closer to 4-5.

**Jeff Edwards:** Yeah. Pretty soon you're going to be putting rocks in there and harvesting lightings. [LAUGHTER]

**Coleman Griffith:** The other thing I'm over-wintering and my wife likes to dye wool and we have matter plants that you need a three-year-old root and matter doesn't. I've heard tell that people have got it to survive in Fremont County but it's one of those things that I've planted various places and the ones I planted outside died but the ones I planted in buckets in the high tunnel lived.

**Jeff Edwards:** Interesting. What color is matter?

**Coleman Griffith:** It's the root and it's one of the only plant-based color fast reds you can get.

**Jeff Edwards:** Interesting.

**Jerry Erschabeck:** Now, have you ever seen lavender rue?

**Coleman Griffith:** No.

**Jerry Erschabeck:** Once you started its a little bit difficult to get rid of it but it is a deep raspberry red and I think that you could boil that and get a nice, anywhere from pink to dark raspberry. It's called lavender rue grows up as a stock and then it has plumes of this red-berry bearing little flower and gosh they can get up to 5-6 feet. We used to have just tons of seeds and then it just throw it over onto a neighbor's yard wanting to be honoree or go down the road and keep pitching it out as you go.

**Jeff Edwards:** Don't be suggesting that. Enough of that happens already don't be [OVERLAPPING] suggesting [00:24:00] that kind of stuff.

**Jerry Erschabeck:** Well, look at the goldfish in our waterways so it's very prolific and if you here I can get you some seeds.

**Coleman Griffith:** We might take you up on that.

**Jeff Edwards:** Do you use the berries as the dye source or is it route based?

**Jerry Erschabeck:** I would think of it's the whole plant not the root. Cut the root or cut the stem off and I think if you boil and chop and boil you would get that color coming out.

**Jeff Edwards:** Is it a perennial?

**Jerry Erschabeck:** No. No, it's an annual.

**Jeff Edwards:** Okay. Is it known as poke weed elsewhere?

**Jerry Erschabeck:** [LAUGHTER] I don't know.

**Jeff Edwards:** [LAUGHTER]

**Coleman Griffith:** [OVERLAPPING] When we started doing this dye garden thing, we were flipping through the brook of all these plants. Unlike yellows, greens and browns are very easy, but there are certain blues and reds there, that are difficult shades to get and then get to stay on the fabric. Flipping through the seed catalog, going through all this stuff and it's all like hated invasive [LAUGHTER]. One of the only things that will get you blue is wood and I'm like, "The entirety of Lincoln County will, with pitchforks, come after me if I plant [LAUGHTER] tigerwood [OVERLAPPING] in my yard."

**Jeff Edwards:** Exactly.

**Coleman Griffith:** It's teensy and it's just hated noxious invasive.

**Jeff Edwards:** [OVERLAPPING] Hey, let's take a break and list our sponsors and we'll be back in a moment.

**Female Narrator:** [MUSIC] Looking for the best way to keep up with all the news from University of Wyoming Extension, the College of Agriculture, and Wyoming AG experimentations? The uwagnews.com website features real-time education, research and extension events, and feature stories from across the state. Bookmark uwagnews.com today and subscribe to our monthly email newsletter. Uwagnews.com, growing people, knowledge and communities.

**Jeff Edwards:** All right, everybody. This is Jeff Edwards and Jerry Erschabeck with the KGOS/KERM Lawn and Garden Program. Our guest today is Coleman Griffith and we've been talking about his gardening and our gardening and this gardening in general, which we probably aren't doing much until November, but there's still things happening. In our high tunnel, we have raspberries and strawberries. The strawberries are still green. I do cover them. Traditionally, we would cover them with a straw mulch to protect them over the winter when they're planted outside. We tried that in the high tunnel, but the problem that we saw with that was that we got Sal bugs or rolly pollies. Really bad because they like feeding [00:27:00] on that kind of stuff. Then when the strawberries came, they like to eat the strawberries [LAUGHTER]. I've decided that straw is not a good thing in the high tunnel and we'll try to do it little using fabric. I still have carrots. I just mentioned to Diane this morning that we need to get out and harvest the rest of our carrots. We've got some greens growing as well, but I think after this week, they're probably pretty much done. [LAUGHTER] Once we get into the teams, it's hard to keep things going.

**Jerry Erschabeck:** Now do either one of you put electric heat into your high tunnels? An electric heater?

**Jeff Edwards:** I do not. I wouldn't use an electric one. I would probably use propane or something like that. I think it would just be too costly to heat it.

**Jerry Erschabeck:** Yeah.

**Coleman Griffith:** I've done it before. The end of September-October, if I have a bushel of barely unripe tomatoes and I want to keep that tunnel going one day more when it's zero degrees out, I've in the past run a drop court and stuck a space heater out there to moderate effect. This year, I skipped the space heater and I hang a chicken lamb [BACKGROUND] from the central roof beam, and it worked great. We had that big September event. I don't know what it was like for you guys, but we got a bunch of snow and then it got way, way cold, below zero cold over night. That chicken lamp kept my tomatoes alive. The ones that were in the corners where they had a lot of exposure to wall space, not so much, but I had a couple that were right in the middle of the tunnel and I think maybe it's because it was getting direct radiation on the plant and I missed everything beforehand. Yeah. I kept that thing. I wouldn't do it the whole winter, but for one or two nights. It was the perfect timing where that cold, even with the high tunnel, my gardening season was over the first week of September, except for that two nights with a chicken lamp and it cost me maybe two bucks. I had tomatoes until the end of October.

**Jeff Edwards:** Yeah. Jerry, I just had a conversation with Gallop in the Cody area this week about heating options and those types of things. I did mentioned to her it's probably not a good idea to try to heat it all winter. She agreed. It would be an option if you're just trying to get it through a couple of days, since we have a week of cold and we've had been a week of 70 degrees. If we can get past that, it's a temporary fix. I don't think we'd have to leave it on that long. Yeah.

**Jerry Erschabeck:** Yeah. Now in Thermopolis, I got to see a greenhouse. It was not in use, but they said that they had piped the hot thermal waters through their greenhouse and had a 70 degrees year-round, growing year [00:30:00] round. I mean, they didn't do it, of course in the summer. But thermal water would be way inexpensive to use if you had it. [OVERLAPPING] If you don't have it, it could be expensive. If you were doing a heated floor, for instance, way, way beneficial. You could even use gravel, but gee whiz.

**Jeff Edwards:** Funny you should mention that. There's a gentleman up in Sundance who put in a high tunnel and then put in heated floor type elements underneath all of his raised beds. I believe he's using ethylene glycol and some type of a heater to keep that at temperature. It seems to be working for him. Yeah.

**Jerry Erschabeck:** Now these geodesic domes that you guys have been putting up. Coleman, have you been helping putting up those geodesic domes as well?

**Coleman Griffith:** Yeah. I have. I think we did.

**Jeff Edwards:** Fort Laramie.

**Coleman Griffith:** Fort Laramie and you weren't on it, but I did one in Orland this year as well.

**Jeff Edwards:** That's right. Yep.

**Jerry Erschabeck:** This inquisitive gardner took a drive because I thought we were going to be talking about that. So I took a drive to Fort Laramie and on the east side of the Planting Roots Pre-school.

**Jeff Edwards:** Yeah.

**Jerry Erschabeck:** I see y'all had put up a geodesic dome. It looked great.

**Jeff Edwards:** Thank you. I'll be back in there. I think probably the end of this week and some of next week, we're going to be building raised beds, [OVERLAPPING] inside and outside. I believe all the materials are there. I just need to show up. [LAUGHTER]

**Jerry Erschabeck:** Yeah. There are some four-by-four looking plastic posts Will you be making the geodesic dome shaped? Now geodesic is what? Six-sided? Is it eight-sided?

**Jeff Edwards:** I think geodesic, you can have multiple sides. It doesn't necessarily need to be a specific number. But these that we're building are 10-sided.

**Jerry Erschabeck:** Ten?

**Jeff Edwards:** Yeah.

**Jerry Erschabeck:** So how tall will you make your outside raised beds? Same as the inside?

**Jeff Edwards:** Yeah. The plan is to match the 10 sides except for the door on the inside and do the same thing on the outside of the structure. So your raised bed is right next to the structure itself, inside and outside. Basically you've doubled your growing space. We can grow things pretty well outside. If Coleman's ideas of moving potted peppers from the inside to the outside would work, you're diversifying your growing space, I guess. Plus I think they're going to expand the garden that's there too. But yeah, it'll match the angles of the structure.

**Jerry Erschabeck:** Yeah. How deep will your raised beds be?

**Jeff Edwards:** I think they'll be 15 inches.

**Jerry Erschabeck:** Wow.

**Jeff Edwards:** [00:33:00] Maybe 15-17 inches. So basically anything you can grow, it will be deep enough to any root crop, any carrot crop, something like that would be perfect.

**Jerry Erschabeck:** It looked as if there was a vent.

**Jeff Edwards:** There's actually two vents and I think this is the first one that we put two vents in, wasn't it Coleman? Or did you put two in up at Orland?

**Coleman Griffith:** Orland has one vent. I thought you did one for Orland that had two vents on it because it looks like Mickey Mouse.

**Jeff Edwards:** No. That was actually over in Wheatland.

**Coleman Griffith:** Okay.

**Jeff Edwards:** Yeah. But what we've done, we're still trying to figure out the venting of this. I think the more vents that you have, probably the better, but we've been putting one down low and one up high. How we place them at Fort Laramie, it gets a nice airflow through it and I don't know that it overheated. Of course, there's nothing in it. What month did we do that? September?

**Coleman Griffith:** Yeah.

**Jeff Edwards:** Yeah. The day that we did it, I think it was seven years. When we skinned it, it did not seem overly hot in there.

**Jerry Erschabeck:** Now, is it an automatic vent or is it a manual vent?

**Jeff Edwards:** They are automatic vents that open up at 70 degrees.

**Jerry Erschabeck:** That's convenient.

**Jeff Edwards:** They don't require any power. It's an interesting system. It's a wax filled shock. You know the struct type things that you have on the back of a hatchback or on your engine?

**Jerry Erschabeck:** On the window?

**Jeff Edwards:** Yeah. Car window type thing. It's that type of a unit and you just screw it into the holder for it, and when it gets to a certain temperature, it drives that rod out and opens up to vent.

**Jerry Erschabeck:** How cool is that?

**Jeff Edwards:** It's cool. [LAUGHTER]

**Jerry Erschabeck:** Do you have plans to heat that was with a drop cord? I see that there's electricity just onto the building fairly close to it.

**Jeff Edwards:** I don't know if they're planning on running electricity out there or not. They could easily.

**Jerry Erschabeck:** Is that a community project or is that now for the kids?

**Jeff Edwards:** It is a community project.

**Jerry Erschabeck:** Okay. I did not go in because I thought perhaps I might be trespassing. But I thought you said it was a community thing.

**Jeff Edwards:** Yeah. I don't want to volunteer that everybody who goes out there can go into it. I don't know.

**Jerry Erschabeck:** I don't know either. Where's your water source for that?

**Jeff Edwards:** There's a hydrant to the north of that that they are going to tie into and then bring a hydrant inside the dome.

**Jerry Erschabeck:** Yeah.

**Jeff Edwards:** Yeah.

**Jerry Erschabeck:** Yeah. Well, it looked really good. How many square feet?

**Jeff Edwards:** That one, it's a little 21 feet in diameter, so Pi r squared, right?

**Coleman Griffith:** Yeah. I was afraid he was going to ask that. [LAUGHTER]

**Jerry Erschabeck:** Coleman is doing [00:36:00] the math.

**Jeff Edwards:** I've made a guess, but I'm thinking my guess is going to be way short.

**Jerry Erschabeck:** I think it's it's over 300, isn't it? Anyway,.

**Coleman Griffith:** If I didn't do it wrong, it's 346 and change square feet.

**Jeff Edwards:** Oh my gosh. Look at what I guessed.

**Jerry Erschabeck:** Did you get the same number?

**Jeff Edwards:** No, I guessed 400. I guessed 400 square feet.

**Jerry Erschabeck:** Yeah. there's got to be walkways on the inside. So raised bed around the inside will probably be three feet wide. Raised bed on the outside will probably be three feet wide. Then in the middle, the intention is to put a raised bed in that is also 10-sided that you can reach. It'll look like a target.

**Jeff Edwards:** Yeah,.

**Jerry Erschabeck:** A 10-sided target.

**Coleman Griffith:** The other interesting thing, I feel like every other person we've done a dome for has immediately had the thought of, there must be a way to do a second tier. Not necessarily building bunk raised beds, but hanging some thing for baskets or something because it's a lot of vertical space.

**Jerry Erschabeck:** Yeah, I think vertical gardening in one of those is an option.

**Jeff Edwards:** Would it be strong enough to hold a hanging basket?

**Jerry Erschabeck:** Yeah. Multiple hanging baskets. Actually, when we finish that one, I climbed up to the second tier and just hung on it. But I'm a 200-pound human. It's jungle gym worthy.

**Jeff Edwards:** I'll be darned. [LAUGHTER]

**Coleman Griffith:** There's a good picture in the one in Afton that has like three-foot of snow sitting on top of it. [NOISE]

**Jeff Edwards:** It seems like that would be a good possibility to do a second tier of some sort. But you guys have to engineer that, right?

**Jerry Erschabeck:** Well, in the preschool, they have a vertical garden that they've put out on the outside of their building. They moved it inside for the winter, of course, but something like that would work out in the high tunnel as well.

**Jeff Edwards:** Yeah. Would there be too much humidity then with a vertical growing wall with water on the bottom?

**Jerry Erschabeck:** Potentially. But my hoop house is not humidity at all. It's hot and dry in there. Coleman, I've got vents all the way down the side of mine. I have roll upsides and screen on it. Do you have roll upsides on yours?

**Coleman Griffith:** I don't. Mine has a Dutch door on one side and then just a window and the back wall and I opened those two, and that's the extent of the ventilation that I have, and I do a shade cloth. The other element of that I do in ground gram gardening in a big chunk of mind and so I have cover crop and stuff in there. So mine actually does get awfully humid. Unless it's the bottom under-story of the tomatoes [00:39:00] with cover crop grown up around it, I don't really have mildew issues or anything like that. The other thought we had, the theory behind putting a low vent and a high vent in the domes is that you'll get a little bit of a chimney effect for ventilation, which means you're drawing in dry air on a fairly constant basis as well. I wouldn't think you'd get too much humidity in them.

**Jerry Erschabeck:** Yeah. Well, and the other thing that I forgot to mention is that the doors that we put on on the domes, they're Dutch doors as well. So you can prop open the top and you're getting some type of cross ventilation as well. I think humidity could be a problem, but we are Wyoming and we're normally low in humidity. [LAUGHTER]

**Jeff Edwards:** Is it a pea gravel bottom or is it a gravel bottom?

**Jerry Erschabeck:** The one at Fort Laramie?

**Jeff Edwards:** Yeah.

**Jerry Erschabeck:** It is the remnants of the grass that was there. They used to have a raised bed garden there that they took out and then that's the space that we were working on. There's some grass there and there's other things. We will put down weed barrier to try to help control the weeds or prevent weeds from growing up inside. The other thing, Coleman, that we talked about doing too in order to align the exterior and interior wall, we thought about using metal, but then I think what we're going to do is the, what is it? HPDE? The heavyweight pond liner style?

**Coleman Griffith:** Yeah.

**Jerry Erschabeck:** Then not necessarily cover the whole inside of the raised bed, but basically build a barrier against that wall on both the inside and the outside. So we can throw soil up against it and water it, and we're not going to get any moisture getting into that wood of that structure. So that's the plan, and it's flexible enough that you can just lay it out in there and keep moving on. Yeah. So just some ideas. Before we move on, I have one other gardening question for Coleman, since you do cold crops. Are you a Brussels sprout grower?

**Coleman Griffith:** I am a Brussels sprout grower, yeah.

**Jeff Edwards:** Can you enlighten us on what you do when you are growing Brussels sprouts? Like start to finish?

**Coleman Griffith:** All right. The better start, I like to get a good start on them. So I typically start most of my own stuff. This year, I started my own Brussels sprouts and I think I started them too late and so they are stunted.

**Jeff Edwards:** Wait a minute. Did you start them in your house before you took them out to the high tunnel?

**Coleman Griffith:** Yeah. So because the high tunnel in February is, well, really, it's the lack of light more than anything else. if I'm going to be adding supplemental of light, I might as well be taken advantage of my ambient house heat and the fact that I can plug it into the wall instead of a [00:42:00] 60-foot drop cord. I start my stuff in the house [OVERLAPPING] bottom-up in the quad flats. Earlier the better.

**Jeff Edwards:** Like February?

**Coleman Griffith:** Usually, that's about the time I start. Tomatoes and, peppers, and stuff, and then cabbages and Brussels sprouts. Get them gone. My garden space is, I run a pretty aggressive clover cover crop over it. I scrape, or strip, or chemically zap that back. However I need to do it. Dig a trench. I do the double dig thing where I dig the trench, fill it with compost, throw it back on top, stick it in that with a drip tape over the top of it. Usually about two-foot spacing, and then I just water them and let them go and I use the clover as a weed suppressant. I just let it grow in between my crops, and I go out there and I mow it and throw it to my my chickens in my rabbits, or I trim around with shears, and yeah, just water the heck out of it. I fertilize with a fish emulsion and a high nitrogen about once every two weeks, maybe once a month, and I just let them go and keep them watered. My sprouts this year we're pretty stunted. Well, we had a really dry year here and I have an irrigation ditch that's my primary source of irrigation water, and our ditch was dry like half the summer. So my whole exterior garden was stunted this year because it was so dry. But typically, they'll get up about, I don't know, knee high, and then it'll start to get a little cabbage at the top, and if you pinch that off, it dumps more energy into making the side shoots, and then you harvest them. I like them about maybe half the size of a golf ball, the size of a large marble. Honestly, in my garden right now, I haven't harvested them yet. They're still alive. They're still growing.

**Jeff Edwards:** So you plant them outside or in your home?

**Coleman Griffith:** Yeah. That's one of the tricks of the high tunnel, is I just don't see the point of sticking stuff in there if I can keep it alive outside. So yeah, I grew a cold, hardy variety of cabbage called Murdoc this year. I harvested them maybe a week-and-a-half ago, finally. I go out there and throw a cover on them if it's going to be below zero. But they were hardy down to negative 10. The Brussels sprouts are still kicking, and then I'm going to harvest them here in a couple of weeks. We'll eat them at Thanksgiving, and then I won't think about Brussels sprouts again until next year. [LAUGHTER]

**Jeff Edwards:** Awesome. Okay. I think when February rolls around, I'm going to be picking your brain about brussel-sprouts a little bit more.

**Coleman Griffith:** Again, the only real problem I had was aphids, of course.

**Jeff Edwards:** Yeah. Always.

**Coleman Griffith:** You turned me on to horticultural [00:45:00] oil a couple of years ago, so I spray with that and that seems to keep them down a little bit. Then I grow tillage radishes and turnips as part of my cover crop mix. That does seem to act as a little bit of a trap crop for whatever reason.

**Jeff Edwards:** There is an ancient pathogen that you might be interested in. It's brassiere or something like that. I can send you some information on that that's specific for aphids.

**Coleman Griffith:** Sure.

**Jeff Edwards:** That we had some good luck with in our greenhouses at the extension office to control aphids on tomatoes so yeah, I'll shoot that your way.

**Coleman Griffith:** You mentioned sal bugs earlier in your tunnel. This past February as an experiment, I built a compost pile in my high tunnel.

**Jeff Edwards:** Okay.

**Coleman Griffith:** [OVERLAPPING] I mostly did it because I wanted to see if I could accelerate the compost pile and it did. I mean, it did boost the heat in there. I got a little bit of early germination. But Lord, I had sal bugs everywhere. [LAUGHTER] I mean, like an entire Spanish crop just got stripped to nothing. My save was taking a toilet paper tube, cutting rings out of it and then putting that cardboard ring around the seedling. They can't get through it and they can't get around it. Then by the time it gets up and has some real leaves on it's hardened off enough to resist them. So that's my labor intensive, but functional sal bug fix.

**Jeff Edwards:** You are practicing integrated pest management. That is a physical barrier. Good job.

**Coleman Griffith:** I also throw a chicken in there every once and a while.

**Jeff Edwards:** [LAUGHTER] Do they eat the sal bugs? They will, yeah.

**Coleman Griffith:** Okay.

**Jerry Erschabeck:** Don't they eat on your crop at all?

**Coleman Griffith:** I've never had a problem with chickens eating my crops. I do have a problem with them going to the softest dirt possible and scratching it to dust-bathe and they will shred. My one remaining rhubarb, I mulched it and the chickens went over and dirt scratched up the mulch and scraped the leaves. They dig in my garden and that's the big problem there. But no, I haven't had problems with them eating crops.

**Jerry Erschabeck:** Going back to one more thing, you said you use tillage radishes and what was the other thing? [OVERLAPPING] Like a cover crop?

**Coleman Griffith:** Usually my cover crop is a big mix, so I use big leaf clover and crimson clover pretty heavily. The tillage radishes or daikon radishes and the goal is they grow real big and tear up the soil and then you top them and let them rot and it breaks up clay, heavy soil. My garden used to be a railroad grade so it's a pretty vital piece of biotechnology there. Then I throw on a five, 10 way mix of whatever cover crop I can get. It's usually a mix of oat grass, rye grass, it'll have turnips, and fava beans, and peas and stuff in it. I just seed that at the end of the season and early in the season and I just let it grow up between my rows. I have my row spaced about a lawnmower width apart. [00:48:00] That way instead of having to weed real heavily, I'm trying to suppress buying weed Whitetop and stuff. It's pretty good for that. Rather than spend a lot of time weeding I just mow my rows once a week or so and then trim around the bigger plants.

**Jeff Edwards:** I like that idea.

**Coleman Griffith:** [OVERLAPPING] Then I compost it, or I feed it to my meat rabbits, or my chickens or something.

**Jeff Edwards:** Now, Jerry, you listened to that intently and not once did he say I rototill.

**Coleman Griffith:** [OVERLAPPING] No, I broke my tiller.

**Jerry Erschabeck:** He does not rototill.

**Jeff Edwards:** He does not rototill.

**Jerry Erschabeck:** He said that he double digs.

**Jeff Edwards:** Which is different from rototilling.

**Jerry Erschabeck:** Well, yeah.

**Coleman Griffith:** I feel I've stepped into the middle of something. I have a half horsepower tiller and sometimes when I double dig, [OVERLAPPING] instead of shoveling, I'll take the outer two times off. I will soften up the top two, three inches of soil with the tiller and dig that way. The other thing I'll do is I'll essentially put the drag stake all the way up and you can weed by just running a tiller right along the surface and tearing out, especially the bind weed stuff. Of course then you got to unravel it like spaghetti [OVERLAPPING] off your fork off your tides. But that's the only thing I use the tiller for is weed control and the beginnings of double digging.

**Jeff Edwards:** You did all that so I came to something there. Jerry is a recreational rototiller and gets his tiller out at least what? A dozen times a year, probably? [LAUGHTER]

**Jerry Erschabeck:** That's a little much. I would say eight times.

**Jeff Edwards:** [LAUGHTER] Okay. You can start rototilling in April and run it until November. That would be about eight times.

**Jerry Erschabeck:** About eight times. Well, I have my wheat started.

**Jeff Edwards:** Okay.

**Jerry Erschabeck:** It's up about an inch and a half. I have some spring triticale that I was going to interlace into that. I think I have some of those radishes. It's called purple top radish, I think, turnips.

**Coleman Griffith:** Turnips.

**Jerry Erschabeck:** Purple top turnip. I liked the idea. We used a weed profile and it sounds you're using a cover crop profile between your rows. Marina thinks that she would like to have just a soil profile between the rows. I like the idea of putting a cover crop and just mowing it because I think you'd have far less weeds.

**Coleman Griffith:** I think you have less weeds, you get less compaction. To some extent, I mean part of the reason I grow the clover is, it's fertilizing my soil. I'd rather have my inner row spaces accumulating nitrogen then my crops can grow sideways into versus just counting it into walkways.

**Jerry Erschabeck:** Then I proceed just rototilling your row. [OVERLAPPING] Just like they do minimal tiling in the farm community. They only really plant the same row because of GPS, correct?

**Jeff Edwards:** Right.

**Jerry Erschabeck:** [00:51:00] I don't think that they go in, but I think maybe they do some pull shank through that one little row.

**Jeff Edwards:** They'll strip [OVERLAPPING] till before they plant.

**Jerry Erschabeck:** Strip till. That's what I'm thinking of eventually using my tiller for, is strip tilling and having that section in between to just the mow.

**Jeff Edwards:** Sure.

**Jerry Erschabeck:** Yeah.

**Jeff Edwards:** Keep your weeds down.

**Jerry Erschabeck:** Which will really reduce my tiller usage overall.

**Coleman Griffith:** You can always get a snow blower.

**Jerry Erschabeck:** Wait a minute. I failed to make that connection from a to b. Why a snow blower?

**Coleman Griffith:** It's basically the same thing, isn't it? It's spinning blades, you push it around, it's heavy, makes a lot of noise. [LAUGHTER] You're flaming stuff in the air. I mean, come on, it's the same sensation, isn't it?

**Jeff Edwards:** I mean, there are places in Ocean County that would probably accumulate enough snow after it blows. I don't know, Jerry, what do you think? A snow blower? You need one. [LAUGHTER]

**Jerry Erschabeck:** I think not. Our episodes for snow are such that it's once every [OVERLAPPING] four months, once every five months that we need some machine to transplant our snow from our walkways. I'm a firm believer in getting out there and doing just a little bit of shoveling [OVERLAPPING] so it doesn't ice over but if it's snowing five or six inches I'll wait until that episode is over, and then I might think about hiring somebody, of course. [LAUGHTER] If it was a foot because don't you get that snow in Riverton? A foot?

**Coleman Griffith:** We're inland or a little closer, and it can vary from year to year but I had chard, kale and fava beans and all kinds of stuff over winter in my garden this year because we got a foot of snow before Thanksgiving and it never melted.

**Jerry Erschabeck:** Yeah.

**Coleman Griffith:** My mulch last year was a foot of snow.

**Jerry Erschabeck:** If I had snow like that, I would have a snow blower. A double, what do they call that? A duel? Not a single stage, a double stage so where it rolls it and then pushes out and makes it dry. [OVERLAPPING]

**Jeff Edwards:** Hey, I hate to cut this conversation short. That was a crazy hour. It just went really fast, so Coleman I want to thank you for being our guest today. We appreciate having you here and we might have to do it again sometime.

**Coleman Griffith:** Yeah, it was a good time. Thanks for having me.

**Jerry Erschabeck:** I think we'd love to have you back Coleman. I'm going to look into those seeds for you as well.

**Coleman Griffith:** Hey, I'd appreciate that. That would be great.

**Jeff Edwards:** Perfect.

**Coleman Griffith:** I'll see if I can send you some tillage radishes.

**Jerry Erschabeck:** Great.

**Jeff Edwards:** Jerry, are there any things happening in the [00:54:00] community that we should let folks know about this week?

**Jerry Erschabeck:** God, I don't know, just to be safe and have a joyous and happy Thanksgiving, I'm thankful to be on this program. I have had a great time. Good ride.

**Jeff Edwards:** Well, it's going to keep going. We've got another program the middle of December.

**Jerry Erschabeck:** Well, again our contract has been renewed. We have to tell people that.

**Jeff Edwards:** Much to some people's dismay, our contract has been renewed. [LAUGHTER] Also our guest in December is Amy Syler. I think we're going to spend some time talking about Christmas trees and tree care, and winter tree health, and those types of things so for now, we will see you in a month.

**Female Narrator:** [MUSIC] You've been listening to Lawn and Garden with University of Wyoming extension specialist Jeff Edwards and co-hosts Jerry Erschabeck. Join us on the air December 11th for the last episode of the year, or listen to Tuesday's podcast December 15th. [MUSIC]