**Female Narrator:** [00:00:00] Welcome to the Lawn and Garden podcast 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.

**Jeff Edwards:** Good morning, everybody. This is Jeff Edwards and Jerry Erschabeck for the KGOS KERM Lawn and Garden program. Our guest today is Donna Hoffman. Good morning, Donna. How are you today?

**Donna Hoffman:** Good morning. It's good to see you both.

**Jeff Edwards:** Good to see you as well. Jerry, it's always a pleasure to have you in the studio again today. How are you?

**Jerry Erschabeck,:** Hey. Really well, thank you so much.

**Jeff Edwards:** Very good. Let's take few minutes and listen to some words from our sponsors and we'll be right back.

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**Jeff Edwards:** Hello, again, everybody. This is Jeff Edwards and Jerry Erschabeck for the KGOS KERM Lawn and Garden program, and our guest today is Donna Hoffman. She's an extension horticulturist in Natrona County located in Casper. Donna, you have mentioned that it's hot and dry. I think it's hot and dry everywhere. [LAUGHTER]

**Donna Hoffman:** It is hot and dry. Our state recognized weather man seems to be thinking about some monsoon weather coming, but we sure have not seen it in recent weeks and we have just seen the hot and dry weather coming up out of the four corners area and spreading that heat all over the Great Plains and the eastern side of our state. Yes, we have seen hot. Most of our lawn grasses are cool season grasses and we all love that it greens up early in the spring and we get to enjoy it for our spring holidays and spring activities, and then July comes and the grass is not happy because this is not the cool season of the year. This is the hot season.

**Jeff Edwards:** This is the hot season.

**Donna Hoffman:** That cool season grass wants to go dormant and just rest when it is so hot.

**Jeff Edwards:** Give me a break. It's just hot.

**Donna Hoffman:** Exactly.

**Jeff Edwards:** It's like my dog, "I'm looking for the shade, man." [LAUGHTER]

**Jerry Erschabeck,:** Like me, I like to rest. We're getting into a plan of getting up earlier and earlier to try to work maybe two or three hours, and then take in that siesta when it's so hot.

**Jeff Edwards:** Oh, yeah. I firmly agree with that. We've been getting up about 4:30 every day just to try to go on and get things [00:03:00] done before it gets really hot, and then maybe get back out in the evening. Donna, you mentioned the monsoon weather pattern. We're clouded up in the afternoon, sometimes things are happening all night long, but they're splitting around us. It's either going north or it's going south. [LAUGHTER] It's just one of those things.

**Donna Hoffman:** Well, not that I'm wishing you any of the bad part of the monsoon weather because we can have extreme weather when it's related to the monsoons, but I do wish you some moisture down there in the crop bearing portion of our state. We need it.

**Jeff Edwards:** Right. We pulled our alfalfa off the field, and of course, there's gopher activity out there, and I attempted to set some traps in the ground, but the ground is so hard I can't even get a shovel into it. I got to get water on it first.

**Donna Hoffman:** It needs water, yeah. I have been doing some digging at my house. I just removed all of the orange day lilies, and I had to do some serious watering before I could get the digging fork in. So yes, absolutely it's hot and dry.

**Jeff Edwards:** Were you removing them because you didn't like them or moving them to a new location?

**Donna Hoffman:** I'm not a great orange fan, so they need to accent some hot pink or something if I'm going to grow orange, but they were sold on the marketplace on Facebook over the weekend.

**Jeff Edwards:** Oh, perfect.

**Donna Hoffman:** Yeah.

**Jeff Edwards:** You relocated them.

**Donna Hoffman:** Yes.

**Jeff Edwards:** [LAUGHTER] To another happy owner.

**Donna Hoffman:** Yes. To get back to our grass issue, I thought maybe I'd talk a little bit about how I recommend people water that will help sustain their lawns and get them through this droughty part of our season. I tend to recommend that you water the same way every time you water, but in the spring and the fall, you don't have to water as frequently as you do in the summer months when it's so hot and dry. Usually, in July and the first part of August here in Wyoming, those are the weeks that we really need to water more and more frequently. I'm gardening now in a really sandy location so I'm probably watering places in my yard, even though I drag a hose, I'm probably watering them every other day or at least, every third day to keep the grass somewhat green. I'm not in a big push to keep my grass golf course green. I'm okay if it's a little bit yellow in the heat of summer because I'm not going out there barefoot and I don't have little tikes that are out there playing barefoot running through the sprinkler or anything like that.

 But we do want to keep the grass healthy, and the best way to keep grass healthy is to get its roots to grow deep in the layers of the soil. If we water so that the moisture penetrates 6-8 inches into the soil, those roots will grow into the cooler layers of the soil and they are more drought resistant when they're not right at the surface [00:06:00] where it's likely to dry out if we have a droughty season. This also helps when we get to talking about tomatoes and times when we go on vacation that might relate to another problem that we have in the garden this time of the year. But if you water every time so the moisture penetrates 6-8 inches, you will find in your yard, that that's a certain number of minutes of watering, and then every time you water you water for those number of minutes. [OVERLAPPING]

**Jeff Edwards:** Donna, it also depends on the pressure, and the volume of water that's coming out it's helpful to understand that too, right?

**Donna Hoffman:** Right. You can't turn your water on just in a trickle one week and then turn it on full blast the next week. If you have multiple people doing the watering, you have to agree that you're going to set the water at a certain height or pressure in the hose. If you have a teenager or somebody else that only helps with the watering a couple of times, maybe when you have to travel, and they have a tendency to either just barely turn it on or turn it on full blast, maybe you need to come to consensus on where the water needs to be set if they're going do that.

**Jeff Edwards:** Hold on a second. This opens up one of the great spousal debates, right?

**Donna Hoffman:** Of course.

**Jeff Edwards:** Diane and I are pretty much in agreement on how frequently to water the lawn, but my parents; my dad wanted to water every day for like 10 minutes. My mom is an every other day, every third day waterer. I know many other spouses who have that same debate, same disagreement on what should be done and how to water correctly.

**Donna Hoffman:** Right. If you use my method, and both family members or multiple family members are involved in checking to see how deep the moisture gets when you've watered, if you've already been watering for 20 minutes, say, and you want to check and see if the moisture gets deep enough in your soil, you can use a long screwdriver. I've actually purchased one that's actually 14 inches long so I can get it deep in the soil, and that's its purpose in life. It's in my garden bag, it's not in my tool bag.

 If you push that screwdriver into the ground and it hits dry soil deep in the soil, it'll hit and it'll feel different than if you hit a rock. If you hit a rock, you need to move the screwdriver to another place because that's not going to give you a good reading on the soil. But clay soil tends to get wet or moisten much more slowly than sand, and because of the differences in our soil across the state, even from one neighbor to another, because oftentimes when a house is built, they dig out the foundation and toss all the excess in the back, so what you'll end up growing on in the backyard [00:09:00] is not topsoil to start with. [OVERLAPPING]

**Jerry Erschabeck,:** Your top soil is now underneath your soil.

**Donna Hoffman:** Yeah. Especially, if there's any undulations in the topography of your site. But then oftentimes if the front isn't level, they'll bring in topsoil from a construction supplier somewhere, which means they have soil from other construction sites that they don't need and they move it from site to site. Oftentimes your front yard's soil is very different than your backyard soil. So you need to get to know the soil in your own yard, and that will help you understand how much moisture that soil needs to maintain life. Then it depends on what kind of plants you're growing there.

**Jeff Edwards:** I'm pretty fortunate. All the soil around my house I've brought in. I know exactly where it came from and exactly what it is. [LAUGHTER]

**Donna Hoffman:** But it's different than the soil that was there when you started to build your house?

**Jeff Edwards:** Yes. Yes, it is.

**Donna Hoffman:** Go ahead.

**Jeff Edwards:** So one of my pet peeves is on the south side of my lawn where there used to be a driveway, and is pretty rocky and pretty grubbly, and so you're right about the different soils in there and that's the first place that will start to burn.

**Donna Hoffman:** Yeah. I've spent quite a bit of time picking rocks out of our soil, and right now I'm tossing them to the side and I'm going to have to deal with them later. [LAUGHTER] There's a whole bunch of different kinds of gravel [OVERLAPPING]

**Jeff Edwards:** Donna, it's a whole lot easier to take care of them the first time you pick them up than the third time when you pick them up.

**Donna Hoffman:** Due to certain extent, yes. But I have a number of one gallon pots that are full of rocks right now. [LAUGHTER] Anyway.

**Jeff Edwards:** Where you hold them down, to keep them down from blowing away in the wind?

**Donna Hoffman:** No. Yeah, well. [LAUGHTER] It does help pots from blowing away. But anyway, once you test your soil, if you find out that the moisture has only gone down four inches in 20 minutes, then you need to add another 10 minutes or 15 minutes until you get the moisture down 6-8 inches for a lawn. If there's trees or shrubs growing in the same area of the yard, then I recommend the depth of the water needs to be 10-12 inches. That will supply enough water for all of those plants to grow in.

 One of the things we tend to forget is when we put it in a new landscape, Jeff, as our trees and shrubs mature, those lawns and trees and shrubs that are growing together will take more water. So all of those plants are made up of 60-80 percent water, and a little tree that's three-foot tall, 80 percent water is a certain number of gallons. But a tree that gets to be 10 foot, 12 foot, 20 foot, 60 foot, there's a whole lot more water in that plant as it matures, and you have to maintain the water level [00:12:00] in that whole organism, not just the roots.

**Jeff Edwards:** So Donna, that's why I plant trees and shrubs in trees and shrubs area and mulch around them, and then all my turf is totally separate from any other place.

**Donna Hoffman:** Right. But tree roots spread 3-5 times the height of the tree, and I bet your mulch areas don't spread that far.

**Jerry Erschabeck:** Wow, that's [OVERLAPPING]

**Jeff Edwards:** Jerry's thinking out loud. [LAUGHTER]

**Jerry Erschabeck:** [LAUGHTER] Yeah, I'm doing sign language. That is quite remarkable in the fact that most people have elm tree or some other large tall tree. I think my elm trees, they're cottonwoods.

**Jeff Edwards:** That other kind of elm.

**Jerry Erschabeck:** That other kind of elm. Thank you so much. [LAUGHTER] But they're fairly large, tall trees, and to think that they're five times the roots, my whole turf is an underlayment of just roots.

**Donna Hoffman:** Your yard and probably, two neighbors to either side of you.

**Jerry Erschabeck:** Oh, yeah.

**Donna Hoffman:** I used to have a co-worker here in Casper who also used to work in the same town as Jeff's mom, and he used to tell the story that when he moved into the house there he went around the neighborhood and introduced himself and explain this watering procedure to all of his neighbors and thank them for watering his trees.

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

**Donna Hoffman:** He promised that he would water the same way and water their trees. But knowing that the trees' roots spread out widely to absorb the rainfall that they need to sustain themselves, because that's what trees do in nature. They spread out their roots and take up as much water as they need in their environment. But we, in Wyoming, put trees and shrubs and lawn in an environment where they would not grow if we didn't have an irrigation system.

**Jeff Edwards:** That's the truth.

**Donna Hoffman:** So we do have to provide a whole of the resources those trees and shrubs need because they can't just run next door and grab a Coke when it's too hot outside and they're running out of moisture.

**Jeff Edwards:** Can I borrow a cup of sugar?

**Donna Hoffman:** Right. [LAUGHTER] So this time of the year when it starts getting hot, you have to water more and more frequently than you did in April and May. Then about mid-August, when it begins to cool off, then we can begin to taper off and water less and less frequently. So the best way to maintain lawns in our dry environment is to water deeply and water infrequently. Jeff, you want to interject.

**Jeff Edwards:** I have a question. If your lawn has been lime green color all summer long, would it be appropriate when the temperature starts to cool down to maybe airy [00:15:00] and maybe fertilized?

**Donna Hoffman:** Yes. But the key is, when the temperatures cool off.

**Jeff Edwards:** But not too late, so you're not losing that fertilizer, right?

**Donna Hoffman:** Right. So before we get that far, I'm just going to interject that you want to wait until the top inch or two dries out before you water again.

**Jeff Edwards:** Oh, okay. Sorry to interrupt you.

**Donna Hoffman:** That's okay. Don't want to lose track of that.

**Jeff Edwards:** Yeah.

**Donna Hoffman:** So if it's in April it stays moist for 10 days, then you don't need to turn the irrigation on. But in July, if it dries out in a day, then you've probably got to water every other day. If you've got a cool day in between, you may skip another day before you need to water. But you have to pay attention to what's going on with the lawn, and the lawn will tell you when it needs water. You can walk across it, and if the blades don't spring back up from your footprints, it's time to water. If they stand back up, you'd probably can wait another day. It's another way.

**Jeff Edwards:** I have areas like that right now.

**Donna Hoffman:** So we don't want to fertilize when it's the heat of summer because we push a lot of succulent, tender new growth and all of that new growth needs water. So it's much easier for that grass to dry out if it's tender, succulent new growth than if we're just maintaining the grass that's already there and maybe a little bit of normal plant growth, because we're going to mow some in the heat of summer. [OVERLAPPING]

**Jeff Edwards:** But really, we're trying to maintain a healthier root system so that when it does cool off, those plants can recover.

**Donna Hoffman:** Yeah. So the other thing with lawns, boy, we're going down the lawn tunnel, if you maintain the grass at a height of three inches and plan to mow every time the lawn gets to four inches, you're only going to remove a quarter of the plant every time you mow, and that taller lawn plant will help shade the soil below it, which will help keep the roots happier because they want to be cool. The cooler roots and the thick grass will help prevent any weeds from succeeding in the germination process. So you'll be more likely to be weed free if you maintain that grass at a taller height.

 I also have a measuring tool with me, well, I should say, most all of us carry with us. I usually teach this in my Master Gardener class. It's a little bit hard to show you the visual on the radio but I'm going to use the visual right now. Most of us have a finger that is about three inches long, and if you add the space between where your thumb is and the first knuckle, you get four inches. From the padded part right above your thumb to your index finger is about four inches long, and then to that first joint where your pointer finger joins the palm of your hand is about three inches. So if it gets as tall as [00:18:00] that padded area by your thumb, it's time to mow. When you mow, it should be as long as your index finger.

**Jeff Edwards:** Jerry, gets it.

**Donna Hoffman:** It's a general rule of thumb.

**Jerry Erschabeck:** I get it.

**Donna Hoffman:** Okay.

**Jerry Erschabeck:** Because you know what? I've elevated my mower head, and that is a great way to say, "Okay, it's time to mow." I happened to try to mow every Thursday morning because that's when my neighbor and I attack both of our lawns.

**Jeff Edwards:** Competitive mowing.

**Donna Hoffman:** Yeah.

**Jerry Erschabeck:** No, no. [LAUGHTER] Agreeable mowing. He tramps, I get on the rider and we go to town, [LAUGHTER] and Myrna gets on the weed eater.

**Jeff Edwards:** Great. [LAUGHTER] Yes.

**Jerry Erschabeck:** So it's a semi community project.

**Donna Hoffman:** So I have a very chiropractor question, unless maybe you retired since I knew you back.

**Jeff Edwards:** No, I have not retired. Thank you.

**Donna Hoffman:** My chiropractor takes Thursdays off, so is it a chiropractor thing that you take the Thursdays to do all the other things that you have to do real quick?

**Jeff Edwards:** I'm not sure what your chiropractor is doing. But I'm taking care of my lawn and garden. I do a little gardening. Well, it's cool, but I think I might know your chiropractor because I know that he takes off Thursdays. [LAUGHTER]

**Jerry Erschabeck:** So I think that all chiropractors take off Thursdays.

**Donna Hoffman:** Yeah.

**Jeff Edwards:** No. It's just like anything else. Everybody's got an opinion. Everybody's got their way of doing things. Going back to everybody being in agreement on how to water, I think is one of the most funniest things I've ever seen in my life, because I have neighbors who, one turns the water on and one comes along and turns the water off. [LAUGHTER] So it's one of those [OVERLAPPING]

**Donna Hoffman:** They're listening this morning, Jerry?

**Jerry Erschabeck:** Oh, I'm sure they are, and I won't say who they are. But we know.

**Jeff Edwards:** When you have a spouse, there are just certain things that you have disagreements on and watering the lawn seems to be one of them, and I don't understand [LAUGHTER] why that is.

**Jerry Erschabeck:** How to make the garden. "It's got to be this way." No, it doesn't. [LAUGHTER] It's whatever way that works.

**Donna Hoffman:** Yeah.

**Jeff Edwards:** Those rows better be straight, dang it, or they're going to go right. [LAUGHTER]

**Jerry Erschabeck:** Now, I've dealt with a lot of farmers and most of them will say that a crooked row, you can put more produce into a crooked row than a straight row.

**Donna Hoffman:** There you go.

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

**Jerry Erschabeck:** Except.

**Donna Hoffman:** Are they doing zigzag planting? [LAUGHTER]

**Jeff Edwards:** Probably not. [LAUGHTER]

**Jerry Erschabeck:** If they're drowsy they are. [LAUGHTER] If they're drowsy, then they're taking some of their product out when they cultivate.

**Jeff Edwards:** It's those sequential things after you plant that cause problems.

**Jerry Erschabeck:** Yeah.

**Jeff Edwards:** No, very good.

**Donna Hoffman:** Can we get back to [00:21:00] the fertilization now?

**Jerry Erschabeck:** Absolutely.

**Jeff Edwards:** Let's continue on with fertilization or the possibility of fertilization. Well before we get there, let's talk about a fall aeration. Is that a good thing?

**Donna Hoffman:** It is, if you have thatch. Now if you've done it every year for the past 10 years in the spring, you may not need to do it in the fall. If you haven't done it ever in the past 10 years, you may need to do it in the fall and maybe next spring as well. But if you have thatch that's building up, which is as a spongy layer of dead root tissue at the soil surface, and it creates a hydrophobic layer, an area where moisture does not penetrate into the soil, and any new roots that grow into that thatch are actually going to be more exposed to the air than they are to the protective layers of the soil, so the wand's going to want to dry out faster.

 If you can remove plugs of just a little bit of that lawn every so often whatever the spacing on the core aerator is, I've never measured that, then you can remove some of your soil, and then if you rake those plugs off you can add them to your compost pile or some other place where you're trying to add organic matter.

**Jeff Edwards:** Rake the plugs off? Who's got time to rake the plugs? [LAUGHTER]

**Donna Hoffman:** Because when you do that then you can add a half inch of peat moss to your lawn and rake it so it goes down into those holes and you add organic matter to your lawn.

**Jeff Edwards:** Again, who has time to do that? [LAUGHTER]

**Donna Hoffman:** Yeah.

**Jerry Erschabeck:** Here's what I'm going to say. Man, I'd like to have you take care of my lawn. [LAUGHTER] My lawn doesn't get pampered as much as what you're saying. I don't rake the plugs either.

**Jeff Edwards:** Donna, if Jerry and I rent a [OVERLAPPING].

**Jerry Erschabeck:** Aerator.

**Jeff Edwards:** Aerator, and we do that, then you can come to our house and rake for us.

**Donna Hoffman:** Okay. Then I get the plugs.

**Jeff Edwards:** Okay.

**Jerry Erschabeck:** That will be all.

**Jeff Edwards:** You can take them home with you. [LAUGHTER]

**Donna Hoffman:** I want some of your crop growing soil from down there.

**Jeff Edwards:** Well, yeah.

**Donna Hoffman:** To be up here to put on my dormant sand dune. [LAUGHTER]

**Jerry Erschabeck:** Donna, can I ask a hypothetically? You would suggest putting peat moss on and putting that in the holes, have you seen those little hydrophilic, water-loving pellets that absorb water that you put into some clay pot or something so you can keep your soil moisture longer? Would you ever, ever consider putting it into those holes?

**Jeff Edwards:** I love that Donna's face here. I think I know what you're going to get there, Jerry. [LAUGHTER]

**Jerry Erschabeck:** You do. Peat moss.

**Donna Hoffman:** Polyacrylamide crystals.

**Jeff Edwards:** There you are.

**Donna Hoffman:** I actually bought some this spring because part [00:24:00] of our new lawn we're putting in a drought resistant variety, it's called dog tuff grass. It comes as a plug, and the instructions that came with it said to dip each of those plugs in the polyacrylamide gel and plant it to help keep those plugs well watered as they got started. It also recommended planting annual ryegrass with the planting, so that the ryegrass would grow up and nurse the plugs of our new desired grass, and then it would die out because it's an annual grass. We did use the polyacrylamide gel on all the plugs and they seem to be doing really well, but boy, annual ryegrass is very vigorous compared [LAUGHTER] to this new grass that we're putting in. It's going to be interesting when the ryegrass is gone and I can see what's going on with the spreading grass that we planted.

**Jerry Erschabeck:** Have you cut your ryegrass yet?

**Donna Hoffman:** A few times, yes.

**Jerry Erschabeck:** Yes. It still is vigorous?

**Donna Hoffman:** Yes.

**Jerry Erschabeck:** Yes.

**Jeff Edwards:** You must be watering it appropriately.

**Donna Hoffman:** I guess. [LAUGHTER] I used it for that purpose. I actually don't particularly like it in my containers or other things, and I doubt that I would recommend using it in the lawn. Partially, because I think it holds the water in those little crystals, and I don't think it releases them to the plants as well as it might, because that's what it's intended to do. I almost think it's counterproductive. But I don't know of any research that shows that my idea is right or the other idea is right. I don't know. It's not something I normally would have used, but because our soil in our house is sand and I didn't want to lose those expensive plugs, I did go ahead and get the polyacrylamide gel crystals, and I hate to be admitting this, we got the finer crystals from the conservation district and hydrated them, and it was still chunky, and I tried dipping the plugs in it and it didn't really stick.

**Jeff Edwards:** Didn't stick to them.

**Donna Hoffman:** I actually got my blender out. [LAUGHTER]

**Jeff Edwards:** Your hand mixer? [LAUGHTER]

**Donna Hoffman:** The one I cut my hand on when I first got it. But anyway I got the blender out and blended it, so it was a smoothie, and then I dip the plugs in it, and it worked really well to coat them. They all seem to be doing really well even though it's quite warm and dry on my sandy soil. But this is a lot of labor to go to just because I did not want it to fail.

**Jeff Edwards:** Yeah. The primary reason I bring up the possibility of aerating [00:27:00] in the fall is that it's easier for me to locate my sprinkler heads when I have water running through the system. I think that, so go rent the aerator, turn on all your zones, mark all your nozzles, and then aerate around them so you don't hit them.

**Donna Hoffman:** Right.

**Jeff Edwards:** Or get them or break them, or whatever. That's one of the reasons it would be easier for me to do it in the fall than it would be in the spring when I don't have the system turned on yet.

**Donna Hoffman:** I'm guessing somewhere you have a map of your sprinkler system. No?

**Jeff Edwards:** I have a mental map of two of them, two or three of the areas, but the other one, I don't know where any of that goes.

**Donna Hoffman:** One of the other things I've been pushing with homeowners over here real recently is leaving a record with the house if you're ever going to move. Of course, most people don't plan on moving, they just retire and then somebody else eventually moves into the house. We won't explain why. But there's no record of the sprinkler system, or what trees are planted in the yard, or what variety of lawn is planted in the yard. It would be really nice if homeowners that are leaving their place to someone else to garden in the future, [OVERLAPPING] would leave a record for future potential homeowners.

**Jeff Edwards:** But it makes an interesting puzzle to try to figure out [OVERLAPPING] [LAUGHTER].

**Donna Hoffman:** That's when they get a core aerator out and they plant holes in them, [LAUGHTER] unknown pipe lines.

**Jerry Erschabeck:** Isn't that the reason you call 811?

**Jeff Edwards:** 811.

**Donna Hoffman:** No.

**Jeff Edwards:** They won't locate in your own yard. [LAUGHTER]

**Donna Hoffman:** No. They don't locate irrigation systems. You have to figure that out on your own.

**Jerry Erschabeck:** Yeah.

**Donna Hoffman:** Unless you have a lawn guy that knows where your lines are. I would recommend if you have a map, to leave it somewhere where somebody else can find it in the future, in that drawer with the owner's manuals.

**Jeff Edwards:** I think I gave it to Diane and said, "Here, you might want to file this for later." I think some of the maps we have, not all of them.

**Donna Hoffman:** Yeah.

**Jeff Edwards:** But I can't even remember where the electrical lines are. We did a project recently and went through an electrical line. [LAUGHTER]

**Donna Hoffman:** Cool.

**Jeff Edwards:** Of my own, which I had put in originally. It's just one of those things.

**Donna Hoffman:** Well, are you going to remember it this time?

**Jeff Edwards:** Well, hopefully, we don't have to dig it up again. [LAUGHTER]

**Jerry Erschabeck:** Donna, that is a great idea.

**Donna Hoffman:** I think always [OVERLAPPING] wire stuff isn't buried at least a foot deep. The stuff that's buried eight inches, six inches. We actually ran into a cable line planting a tree and it was four inches below the surface. I was not expecting it when I stood on the shovel and.

**Jerry Erschabeck:** Chopped right through it.

**Donna Hoffman:** Well, at least, through the coating. [00:30:00] We've done lane locates. But I didn't expect it that close to the soil surface.

**Jerry Erschabeck:** Sure.

**Donna Hoffman:** Actually, the locate was about 18 inches off to the North. They aren't perfect, that's for sure.

**Jeff Edwards:** Hey, on that note, let's take a break and listen to our sponsors. We'll be back in a bit.

**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 experiment stations? The UW AG news.com website features real-time education, research, and extension events, and feature stories from across the state. Bookmark UW AG news.com today and subscribe to our monthly e-mail newsletter. UW AG news.com, growing people, knowledge, and communities.

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**Jeff Edwards:** Okay, everybody. We're back. This is the KGOS/KERM Lawn and Garden Program. I'm Jeff Edwards and my co-host is Jerry Erschabeck. Jerry, you've been quiet today.

**Jerry Erschabeck:** A little bit. Donna has had a lot of interesting ideas in regard to line locate, making maps of your house, and the most important part, how to water your lawn so it's successful. Donna, what about fertilization?

**Donna Hoffman:** Jeff mentioned Korea rating and then fertilizing earlier. It is a good thing to do in combination with each other personally because the fertilizer can get down into some of those holes. You get some of the fertilizer right on the surface that'll penetrate with the water into the soil. Then you get some of those fertilizer pellets down into the deeper layers of the soil and it helps to fertilize the deeper roots. Then if you can add the peat moss, that'll help add some organic matter, which of course will add to the nutrient down the road.

 But one of the things I wanted to touch on with fertilizer is that you want to get that fertilizer on after the heat of summer. At least, after the 15th of August is a good gauge, but I say after the temperatures get out of the 90s. Then you probably want to try to keep a rule of thumb that you want to get the fertilizer on the ground by about September 15th, because if we get an early snow in October and that fertilizer has been on after the 15th of September, you may have a lot of succulent new growth on that snowfall. That's the year that will end up getting snow mold on the lawn [00:33:00] from all that succulent new growth that lays under the snow all winter long. When I lived down in Laramie, I remember a few snowfalls that happened in October and that snow stayed until the melt in the spring. In those cases, if you had succulent tender new grass under that snow that laid there all winter long, there won't be any grass there when the thaw comes because it will have turned to mush because of that snow mold.

**Jeff Edwards:** Mushy, nasty.

**Donna Hoffman:** It's gross.

**Jeff Edwards:** [LAUGHTER]

**Donna Hoffman:** By the way, I have a flower bed in front of my house where the snowdrift forms instead of turf grass snow.

**Jeff Edwards:** All perfect?

**Donna Hoffman:** Yeah.

**Jeff Edwards:** Jerry, you wanted to talk about tomatoes.

**Jerry Erschabeck:** Tomatoes. Some of my friends brought in one of their tomatoes and it had blight. He says, "What do you think?" I said, "It looks like blight." She says, "Yeah, that's what the garden center said. What do you do about it?" I said, "Pull it out." But what I would like to ask if you had tomatoes on a tomato that had developed blight, and blight is when the leaves curl up and start to look crispy. Are the tomatoes still good on those? Do you just pull the rest and you put any of those tomatoes out on a cardboard box and try to make them get a little riper and eat them?

**Jeff Edwards:** So blight is the viral disease of tomatoes and potatoes. Did you say blight in potatoes first, or did you say blight in tomatoes only?

**Jerry Erschabeck:** Tomatoes only.

**Jeff Edwards:** Tomatoes only, okay. Me personally, I don't know that I would want to try to save them to get them to ripen up to consume. I don't know Donna, how do you feel about that?

**Donna Hoffman:** Well, we can't catch the tomato virus. It's not transferable to humans, so I don't get sick from eating it. I don't know that I would spend the energy to ripen it, but if I had a really good recipe for a green tomato salsa or fried green tomatoes, which I'm open to getting a recipe for.

**Jeff Edwards:** There was a hint. If there is anybody has a recipe for fried green tomatoes, Donna would like the recipe.

**Donna Hoffman:** It's not them [OVERLAPPING]

**Jeff Edwards:** Send it to us, we'll send it to Donna.

**Donna Hoffman:** I really enjoyed them, but I've never made them. Anyway. I would probably use them if I could use them right away, and especially like a fried green tomato, you're not going to look at it. Even if it has the weird blotches on it, it's okay. We're not going to get sick from it. If you're worried about getting sick from it, it's cooked. I think it'd be okay to do something like that with the tomatoes. I don't know that I would put the energy into wrapping them in newspaper and trying to ripen them, but they would be safe to eat.

**Jeff Edwards:** Yeah, I don't think that their shelf life would be very good. I think that they would probably [00:36:00] rot maybe before they reach full ripeness before they get there.

**Jerry Erschabeck:** From what I've seen is that once you have one plant that goes into a blight, if you remove it completely from your growing area, you may or may not have the blight in the next tomato plant.

**Donna Hoffman:** Right.

**Jerry Erschabeck:** Right.

**Donna Hoffman:** The sooner, the better. But don't remove it to your compost pile. Get that thing out of the yard and away from anything else green.

**Jeff Edwards:** Yeah.

**Jerry Erschabeck:** Don't throw it in your neighbor's yard either. [LAUGHTER]

**Donna Hoffman:** Bag it, landfill, it's good.

**Jeff Edwards:** Bag it and tag it, Donna?

**Donna Hoffman:** [inaudible] yeah. [LAUGHTER]

**Jerry Erschabeck:** Here's the other key. Where does it come from? It's just inherent in our soils. Isn't that correct?

**Jeff Edwards:** To me, and I think that we had a program with Bill Stump awhile ago that was on Barnyards and Backyards live. He mentioned that blight is airborne and in the soil.

**Donna Hoffman:** There are also insects that vector it.

**Jeff Edwards:** Particularly things that have piercing sucking mouth part that feed on tomatoes.

**Donna Hoffman:** But we do recommend if you have the blight to rotate out of that area with those potato, tomato, egg plant, crops.

**Jeff Edwards:** Peppers.

**Donna Hoffman:** Peppers, and three years later, you should be able to come back to that same spot. It's not necessarily in the soil no matter what. Over time, the population of the virus will die off.

**Jerry Erschabeck:** Diminishes.

**Donna Hoffman:** Diminish, and then you can plant back into the area.

**Jerry Erschabeck:** Now, personally, I've gardened in that same area for almost 30 years, and we do try to rotate. There's only so much rotation you can achieve. But the people that brought in their tomato said, we've never had tomatoes here before. We've moved in, and here it is. We're really disappointed because they were looking so good.

**Jeff Edwards:** If it's an insect vector, there's not a whole lot they can do about it.

**Donna Hoffman:** Right. They've been in this spot, gardening in this area for quite some time, but they've not had their tomato in that spot before. It's not in the last few years or they're new residents in that garden?

**Jerry Erschabeck:** They're new residents in that spot and this is their first year of growing tomatoes.

**Donna Hoffman:** So there could have been tomatoes there from a previous owner. There could have been potatoes there that had the same virus last year before they moved in. Then if they put tomato right where the potato was, it's still susceptible to the same disease?

**Jerry Erschabeck:** If only they had a map.

**Donna Hoffman:** If only? Yeah.

**Jerry Erschabeck:** [LAUGHTER].

**Jeff Edwards:** Planting history. [LAUGHTER] Jerry, that's part of that legacy books that you're going to be leaving to your grand kids. All those plants that you didn't take care of.

**Jerry Erschabeck:** Yeah.

**Jeff Edwards:** [LAUGHTER]

**Jerry Erschabeck:** Well, no, we take care of them and that's why they are legacy plants. That's why they're growing so well, it's because we leave them alone. [LAUGHTER]

**Jeff Edwards:** [00:39:00] So you just need to have a legacy map of the whole thing, turn it into a treasure book for something later on, right?

**Jerry Erschabeck:** Yeah, I think so.

**Donna Hoffman:** Yeah. Well, I think either put the treasure out and have everybody up and down the rocky mountains looking for it for like 10 years.

**Jerry Erschabeck:** That was finally found.

**Donna Hoffman:** Finally found.

**Jeff Edwards:** Jerry, I think you had another tomato question before we?

**Jerry Erschabeck:** I did, and it's called tomato and blossom growth. The tomato has actually grown off of the stem and the end of the tomato starts to go to mush. What are your comments on that?

**Jeff Edwards:** It's not a disease, it's a calcium deficiency.

**Jerry Erschabeck:** So tell us how to put calcium into your tomatoes.

**Donna Hoffman:** We have lots of calcium in our water and in our soil, that's what the white stuff is on your faucet, if you don't soak it in vinegar on a regular basis. If we're not watering well, then the plants can't take up the calcium that's already there, so you get a deficiency. So the problem is actually an inconsistent watering problem, and often it's referred to as vacationer's disease, because when we take a 10-day vacation or two week vacation in the middle of summer and we leave the neighbor teenager in charge of watering for us [OVERLAPPING]

**Jeff Edwards:** Hey, now that's the second time you've been cruel to teenagers.

**Donna Hoffman:** Well, the problem is we don't always walk through like we would expect to happen with our spouse.

**Jeff Edwards:** You can say other people.

**Donna Hoffman:** That's right.

**Jeff Edwards:** [LAUGHTER]

**Donna Hoffman:** Other family members, other household members that we're sharing the house with so that you're setting the sprinkler at the same pressure, running it for the same amount of time. Oftentimes we don't give enough instruction on what we really want to do. But oftentimes, I did the same thing when I was a teenager. I loved gardening, but if I could get it done in 10 minutes and nobody knew any different, I had other things I would love to do. It was easy to chalk the project in half and still I did it.

**Jeff Edwards:** You ought to be young and irresponsible again, right?

**Donna Hoffman:** Yeah. I mean, there's only so many minutes in the day and you got to enjoy them to the fullest. Anyway, I'm not accusing any teenager of anything that I didn't expect. But anyway, if the plant's not getting enough water to absorb the calcium that's in the soil, because calcium will come in to the plant with the water, then they get this calcium deficiency that forms on the end of the fruit where the blossom was attached. So it's called blossom end rot and it can be in peppers, it can be in eggplant. If we were getting fruit on our potatoes, Jeff, we might get blossom end rot on the bottom of those little juicy [00:42:00] berries as well. But we tend to notice it on our tomatoes first and maybe on some peppers after that.

 But if the water is applied consistently, so there's never an up and a down with water applied, if there's always consistent water available to those plants, it should be able to get plenty of calcium. There are some home remedies on how to supply additional calcium to the plants. I don't think there's any need to go into them because I think that just reiterates those rumors.

**Jerry Erschabeck:** My brother-in-law wants to eat them, and I told him that if he cuts that end rot off then probably it'll be okay to eat, but consistent watering.

**Jerry Erschabeck:** Yes.

**Jeff Edwards:** All righty. That works for a lot of stuff, doesn't it?

**Donna Hoffman:** In this dryland part of the world, the most important thing we give our plants is water. [OVERLAPPING] Does that sound like a chiropractic instruction as well?

**Jeff Edwards:** [LAUGHTER] To drink a lot of water?

**Donna Hoffman:** Lots of water.

**Jeff Edwards:** Right after you get adjusted, you bet.

**Donna Hoffman:** Okay. [LAUGHTER]

**Jeff Edwards:** Because then, you know, everybody says, "Oh, I'm so stiff and sore." Well, you were stiff and sore before you came in. Now we manipulate you and now you're stiff and sore. To negate that you drink a lot of water. I was listening and I heard something remarkable. NOAA, the National Oceanic Atmospheric Administration, our June was the third warmest June on record. It tied for third with June of 2015 and June of 2020 and I didn't get the other June. But that's significant because we've all been complaining it's hot. So the third warmest June on record, according to NOAA.

**Donna Hoffman:** It will probably show in our water bills.

**Jeff Edwards:** There's another thing. You talk about how important it is to not so frequently, but water deeply. Some people aren't watering because of the water bill and starting a new lawn can be rather expensive as well. If one were starting a new lawn, you'd want to wait until later on in the fall, September maybe to start your lawn.

**Donna Hoffman:** It depends on if you're starting it from seed or from sod or from plugs. In my case, when plugs are available, they're not available in the fall, they were available in the spring. But if you're starting from seed, the fall is a really good time to start because you're headed into the cooler weather, you know those plants aren't going to have to go through the heat of summer before they get a really good root system established and oftentimes the soil is warm [00:45:00] enough that a good root system will start before the freezes and snowfall come. For our, it's not even winter when we start getting winter weather.

**Jeff Edwards:** Not requiring nearly the amount of water to keep the soil moist.

**Donna Hoffman:** Right.

**Jeff Edwards:** Yeah. Is this a good time to start your fall gardens, starting to plant those radishes and root crops?

**Jerry Erschabeck:** Maybe not the really short season stuff. Diana and I are contemplating doing another planting of sweetcorn in the high tunnel and trying to see if we can get it to make. But it might be just a little bit early for some of those things. Our greens, our radishes, those types of things, maybe the middle of August when it starts to cool down a little bit because there's such short season. Radishes can develop in 50 days and the greens and those types of things. Your season should be long enough to get them to mature.

**Donna Hoffman:** Mark was just talking about wanting to plant some more broccoli because our broccoli did not succeed this spring. We were looking at a planting chart that is based on when our last frost-free day is and he probably should have planted the broccoli about 10, 12 days ago. But I think he's going to go ahead and try to get some broccoli in the ground and see if we can get broccoli to succeed in the fall where it didn't succeed the spring.

**Jeff Edwards:** Are you going to put that in your greenhouse, Donna, or in your garden?

**Donna Hoffman:** I'm contemplating having and put it in containers and leave it outside for now and then move it into the high tunnel so that we can protect it if the weather turns iffy.

**Jeff Edwards:** That's a really good idea. Before we started and before we wrap up today, you wanted to know about insects, I can't even say that word today, skeletolizing. [LAUGHTER]

**Donna Hoffman:** Skeletonizing?

**Jeff Edwards:** Skeletolizing the leaves of squash plant.

**Donna Hoffman:** Yes.

**Jeff Edwards:** Are there any insects around when they go to look at it?

**Donna Hoffman:** Well, here I'll read you this. It says, something has been attacking my big leaf vegetables like squash, pumpkin, cantaloupe, and sunflowers. The leaves are turned lacey. I've never seen any insects, perhaps they're very small. No, my tomatoes and peas are not affected.

**Jeff Edwards:** Let's see, flea beetles are a possibility. Grasshoppers, small grasshoppers would skeletonize things before, the big ones just consume everything. Those would be my top two. However, I don't know why they aren't seeing them on the plant.

**Donna Hoffman:** Well, if there's flea beetles, they may not know to look that closely.

**Jeff Edwards:** Yeah.

**Donna Hoffman:** The other pest you brought up has become a pest in my yard this year, [00:48:00] which of course, we're anticipating for the whole year everywhere in the state.

**Jeff Edwards:** The G pest.

**Donna Hoffman:** That one, yes. [OVERLAPPING]. Is it too late to start using grasshopper bait or have we reached the point of the year where it's just revenge killing?

**Jeff Edwards:** It's an interesting year to me because a lot of times in the past everything hatches out at the same time, all the grasshopper seemed to be the same age. That's not this year.

**Donna Hoffman:** No. There are grasshoppers that are half or three-quarters of an inch and I saw one the other day that was an inch and three-quarter or more.

**Jeff Edwards:** In my yard, I have all life stages. I have some that are just newly emerging, I have some that are winged adults. I would say that the bait product would still be a good way to go to try to control them or conventional insecticides as well if people choose to do that. I don't think it's too late to take care of some of those smaller ones, the larger ones, you probably aren't going to kill those. But I think we're going to be in for several years of grasshopper issues, which is unfortunate, but it's cyclical and that's the way it works.

**Donna Hoffman:** Yeah, we have had all kinds of blister beetle issues here in the Tronie County and across the border close by in Canvas county and one that I have not seen since I was a kid when I was taking the entomology project in 4H, I found this little beetle that I didn't know what it was then, but it was in our kochia weeds in the sheep pasture and I just thought this little beetle was the cutest thing, was so cute. Somebody needed to put it in a kid's book and I haven't seen him since we lived in the place where we lived when I was a teenager.

**Jeff Edwards:** Are they the big black ones or the gray ones?

**Donna Hoffman:** They're the spotted ones.

**Jeff Edwards:** Gray and black spotted ones?

**Donna Hoffman:** Gray with black spots on them, but they're called a spotted. Anyway, someone in Rolling Hills has had an infestation of them and they didn't know where they came from, how they ended up clear out there, again on that dormant sand dune North of Glynn rock and of course, it's because the grasshopper population is exploded than the predator that feeds on the younger grasshoppers or the grasshopper eggs. [OVERLAPPING] So those populations have exploded, which of course is going to mean we're going to have to keep an eye on it in the hay because that's where they tend to end up and then they become a big problem for our hay producers.

**Jeff Edwards:** For horses.

**Donna Hoffman:** Hay consumers too.

**Jeff Edwards:** Yeah, the consumers more than our producers. The blister beetles feed on flowers, so that's why they're attracted to the alfalfa and if folks are willing to cut their alfalfa prior to it blooming, they shouldn't have that much of a problem [00:51:00] with blister beetles. But that's the thing, we get this big influx of a prey species and then we have the predators and the parasites and everything else start showing up a little bit later. But I'm seeing a lot of different predators out and about that I haven't seen in awhile. So there's plenty of food [LAUGHTER] for things.

**Jerry Erschabeck:** Jeff, would you suggest leaving a small strip of alfalfa to go to bloom to bring those blister beetles on [OVERLAPPING] so they would eat some of the grasshopper larvae.

**Jeff Edwards:** The adults don't eat the larva. It's the immature blister beetles that hunt down the eggs of the grasshoppers.

**Jerry Erschabeck:** Not the adults?

**Jeff Edwards:** Well, you want the adults to lay the eggs, but yeah, that would be a beneficial thing. It's one of those 50, how do you make the best choice. But grasshoppers most commonly occur in the borders of alfalfa and if you left a strip around a ditch, round a pipe, something the blister beetles will be attracted to those areas where it's flowering, it's usually where the grasshoppers are, so there's a little bit higher chance that the predators are out there doing what they need to be doing.

**Donna Hoffman:** I've actually discovered about five or six praying mantis in my yard. I've been hoping they will take care of some of the three-quarter inch grasshoppers. I'm not sure if they rip the heads off of grasshoppers or if it's just their significant others that happened with the praying mantis.

**Jeff Edwards:** They consume the whole grasshopper except for the legs usually and move on to the next one. They're pretty good predators. You know what? I think we have consumed a whole hour. I hate to shut us off, but Donna, we appreciate you being our guest today. I'm sure we'll have you on again before the end of the season.

**Donna Hoffman:** I always enjoy the visit and I'm sorry to have taken up so much of the conversation, but I hope it was beneficial.

**Jeff Edwards:** If Jerry wanted to talk, he could have interrupt you at any point. [OVERLAPPING].

**Jerry Erschabeck:** I could have interrupted at anytime at all. Hey, thank you for promoting chiropractic, [LAUGHTER] it was a great segue. Always a pleasure talking with the both of you. Thank you so much.

**Jeff Edwards:** Thank you both very much. We'll see you next week.

**Female Narrator:** [MUSIC] You've been listening to Lawn and Garden with the University of Wyoming extension specialist, Jeff Edwards and co-hosts Jerry Erschabeck. Thanks for listening.