

**Episode Title:** Cold Weather Gear

**Summary:** We kick off our winter series by talking about cold weather gear. Agricultural workers have to work outside in the winter and here in the Midwest, staying safe and warm in the winter can be challenging. Having the right kind of clothing and accessories for working outside in the winter can help prevent cold temperature-related health problems like frostbite and hypothermia. In this episode, we talk about how to build a clothing system based on layering and what materials are best and worst for keeping you warm and dry. Our guest is Paige Grissinger, a student in Public Health and a senior in the Air Force ROTC program at the University of Iowa.

**Expert:** Paige Grissinger

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**Episode Quote:**

*“Outdoor activities don’t stop in the winter, they’re just not as easily accessible, so have a clothing system that keeps [you] nice and warm.”*

– Paige Grissinger, University of Iowa College of Public Health

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## Transcript

**00:04 K. Crawford**

Welcome to the FarmSafe Podcast brought to you by the Great Plains Center for Agricultural Health. In the blink of an eye, an injury can change your life and your farm forever. During each episode, we share first-hand stories and real-life tips for making safer and healthier decisions while on the farm.

In this episode, we are going to kick off our winter series by talking about cold weather gear. Agricultural workers have to work outside in the winter and here in the Midwest, staying safe and warm in the winter can be challenging.

This past fall we asked young ag workers about what their hardest winter jobs were and what kind of gear they used to stay warm.

**00:42 Speaker 1**

My hardest job that I have done in the winter is probably shoveling the driveway. I wear lots of layers and good shoes because I don’t like getting cold. I don’t think anyone does.

**Speaker 2**

The hardest job in the winter on the farm is probably breaking waters for the animals. I usually stay warm by wearing coveralls, sweatpants and a big jacket and a soft knit cap.

**Speaker 3**

Proper footwear in the snow would be insulated boots with a very good traction if it’s very slick.

**01:19 K. Crawford**

Having the right kind of clothing and accessories for working outside in the winter can help prevent cold temperature-related health problems like frostbite and hypothermia. Hypothermia usually occurs at very cold temperatures but can occur at cool temperatures above 40 degrees Fahrenheit if a person becomes chilled from being wet (from either rain, snow, or even sweat). In these scenarios, the body begins to lose heat faster than it can produce it. If body temperature drops below 95 degrees Fahrenheit, it’s considered a medical emergency. So, if you have to be out in the cold, it’s important to wear clothing that will help you stay warm and dry.

To learn more about winter gear, we are going to hear today from Paige Grissinger. Paige is a student in the College of Public Health and a senior in the Air Force ROTC program at the University of Iowa. She also works at a family-owned outdoors store in Iowa where she helps customers find the best winter gear for their needs. She loves being outside and is an experienced backpacker.

**02:17 P. Grissinger**

I grew up with a lot of outdoor activities helping out on my grandpa's farm, things of that nature. And so, it kind of comes naturally and I've made a lot of mistakes clothing-wise and gear-wise over the years. And as a backpacker going out with everything you need on your back to, to live, each piece is very influential and can make for a really good time or a really bad time.

Outdoor activities don't stop in the winter, they're just not as easily accessible so if you want people to stay active into the wintertime, build a system or have a clothing system that works well for them and keeps them nice and warm.

**02:55 K. Crawford**

Paige introduced the idea of a clothing system which is based on layering. Layering can help you regulate your temperature, and each layer serves a different purpose. The base layer wicks sweat away from your skin keeping you warm and dry. The middle layer is insulating and helps you retain your body heat and the outer layer acts like a shell protecting you from the wind, snow, and rain. I asked Paige to talk about these different layers and what materials people should look for when putting together their layers.

**03:24 P. Grissinger**

Here in the Midwest where we have soupy, wet snow, a three-layer system. I would consider a base layer, preferably wool. Merino wool is going to be soft, anti-microbial so it's not going to smell bad. You can wear it multiple days in a row. And I would recommend between 150 and a 250-weight depending on how active you're going to be. So those weights are just rated on the thickness of the material itself. A lighter 150-layer shirt underneath would allow a lot of breathability, and you could wear that into the fall and the spring, it might be a little toasty in the summer. But not only is it wicking that moisture away from your body but it's also insulating at the same time. Additional properties of wool that are very beneficial as your base layer, are that even if it were to get wet, it's still going to insulate, it's not going to get cold.

When we're talking about winter materials cotton is one to avoid. When cotton gets wet it no longer insulates instead it's going to freeze and it's just going to continue to suck the warmth from your body into that garment. And so, when we're talking about soupy Midwest winters, cotton is certainly not something that you want directly on your skin, and it's good to avoid it just in general in any of the garments that you're wearing because it's not something that dries quickly, either.

In recent years bamboo has been used more and more in articles of clothing. It's more sustainable but also has a lot of the same properties as wool but usually used in the context of summer clothing. It's extremely soft, it's much lighter weight. It's going to insulate when it's wet. So, it has a lot of the same properties of cotton without having that freezing option.

**05:11 P. Grissinger**

And if you're someone that doesn't want to go for that natural fiber— if you have an allergy or something like that— you can still find polyester and spandex blends. Those will have to be washed more frequently because they will start to smell bad after every wear pretty much depending on how your level of activity.

They also aren't as warm. You could get a fleece lined one, things of that nature, but what you're going to see across the board when comparing things is your natural fibers are going to be significantly thinner and warmer, compared to your synthetic options which are generally going to be significantly thicker and heavier. And so that base layer is one of the most influential pieces.

Our second layer I would recommend either a fleece sweater of some sort or a wool sweater. This could also include sweatshirts; flannels work well here as well. Something that's going to still be insulating, but you could shed that layer, if necessary, but for that full day outside more coverage is better. And you also have to consider that any zippers, or air vents, things that are just another area that cold air could get in through. So, a Quarter Zip is always recommended, or some sort of hoodie style, second layer, just kind of prevent those areas where the cold air wind can get through.

And then finally, you have to have a good coat. We're all familiar with that around here, and it's good to have something that's pretty water resistant. So, a nylon, Gore-Tex, polyester, or something of that nature with some sort of filling. A down filling is going to be much more insulating and puffy than a synthetic option, but I want to bring up both depending on your personal perspective and what you're willing to pay as well. Again, those synthetic flavors going to cost less but they're not going to last as long.

**07:12 P. Grissinger**

The last layer would actually be like a shell. A Gore-Tex layer your raincoat, essentially, that wind-proof material is going to help insulate everything underneath, and not allow any of that moisture in.

Additionally, as we work away from our body in layers, you want those to get a little bit bigger. So, myself, I might wear a small base layer but by the time I get to my coats, I have a medium to account for the amount of space that I need underneath.

A waxed cotton outer or a canvas— like a waxed canvas— outer is something that you're going to see decades of use out of if it's taken care of. And additionally, what's really nice about having those natural fibers opposed to like a synthetic is that when they rip, you can patch them very easily and it doesn't sacrifice the durability of that material. A farmer is not going to want to wear a down jacket on the outside if you're working around fencing or anything like that, you don't want to risk catching it. Your outermost layer should be something that's rugged and durable rip stop, to a certain extent, mendable.

You don't want to be wet. And so, if that outermost layer can prevent that, that's ideal. But you can't always plan for the best-case scenario and therefore you should focus on what's actually touching your body. If you do go the synthetic base layer route you need to remember that that layer, when it's wet, it's going to freeze, it's not going to insulate the same way that wool would.

So, you want to be able to keep your base— the core of your body, dry and warm. It can be the matter of life and death when you were talking about hypothermia.

**08:59 K. Crawford**

Besides hypothermia, frostbite is another cold weather hazard, and it occurs when skin is cold enough to freeze. Some of the high-risk areas for frostbite include ears, nose, cheeks, fingers, and toes. I asked Paige about cold weather gear that can help protect these areas, like hats, gloves, and gaiters.

**09:19 P. Grissinger**

For gaiters, I would go for the Merino or fleece ones, when we're looking at this time of year, they're great for skiers and all those working outside. The fleece and wool equally cut the, the wind. There are masks that if you need a full coverage that are made of neoprene and that are quite soft on the inside as well. Hunters love that because when you're sitting still, it can make a big difference when the wind's ripping by and you're not moving and keeping warm. For hats, you want to focus on your ears, but you lose the majority of your heat through your head and your feet. And so, pay close attention to the types of socks you have and the quality of your hats or earmuffs.

And then as far as your hands are concerned, gloves are much more practical if you need to be working with your hands, but if you're just out driving around, or if you're walking from one place to another, mittens are a better option, particularly something that's maybe Gore-Tex on the outside and has a synthetic or a down filling on the inside. Additionally, what you can add in there as well would be hand warmers for those really cold days and with mittens, those are much more accessible than they would be for gloves because you can actually have your fingers on that heat source.

You can for really, really cold days if you want to have a glove liner like a thin glove inside of a larger mitten or a thin glove inside of a larger glove. Additionally, I know many folks that will wear gloves inside of their mittens. I mean I personally have a pair of beaver mittens and then I have something on underneath that I can chuck those mittens off when I'm not trying to stay super warm and then I have full access of my hands. Whether I need to access my phone or wrench on something or whatever you have mobility of your fingers.

**11:08 K. Crawford**

And what about footwear? What do we need to put on our feet?

**11:12 P. Grissinger**

Your traditional snow boot is going to be a good option. Things to consider are the longevity and the insulation of those boots. If you find that you're doing a lot of work. You may not want the thickest most insulated boot but instead you should focus on your socks, because your socks can make a world of difference. Again, I'm going to lean towards the merino wool.

You don't have to wear the thickest, the stick is soft sock to be the warmest, in reality, if you're someone that's going to be on your feet all day moving around you actually want a wool sock that has some breathability woven into it, because if you have that super-duper thick sock on it doesn't allow for any ventilation and all that moisture stays on your feet.

When you're looking at footwear too, if your shoes are too tight, when you are wearing winters socks, you need to take that into consideration because you're cutting off the circulation and you're not going to have that same flow that you would usually and so that's when looking at that natural fiber is better than that synthetic fiber because you can save space for shoes, it's a lot easier to replace a pair of socks them to go out and replace the boots that you already have and love.

#### 12:20 K. Crawford

To learn more about this topic, check out the links we have provided in the episode resources section of our website. Check out the handouts and infographics from the GPCAH and the CDC that summarize signs and symptoms of hypothermia and frostbite and have recommendations for cold weather gear to help keep you warm and dry.

#### 12:39 P. Grissinger

Listen in on the farm safe podcast to join in on the conversation about keeping safe on the farm.

#### K. Crawford

We want to hear from you. Share your stories about health and safety issues on the farm, about injuries that made you change the way you work, or about the ways you keep yourself and others safe on your farm. Also let us know if there are any topics that you want to hear about on the air. You can visit our website at [gpcah.org](http://gpcah.org) or email us.

Original music for the FarmSafe podcast was written and performed by Ben Schmidt.

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## Episode Resources

- [Cold Weather Hazards](#)
- [Avoid, Spot, Treat Frostbite and Hypothermia](#)
- [Winter Weather Safety Tips and Resource Page \(Ready.gov\)](#)

## Photo

