

Episode Title: Poisons, Part 1: Exposure Prevention

Topic: Preventing Exposure to Various Poisons

Episode Summary: In this episode of the *FarmSafe* Podcast, released in recognition of National Poison Safety Week, we begin a two-part series focused on poison prevention on the farm and in the home. The episode highlights common poisoning risks from chemicals, hazardous gases, fuels, medications, and animal health products, while emphasizing practical steps to reduce exposure for farmers, workers, and families. Listeners hear a firsthand story from Oklahoma dairy farmer Anita Howard, who was seriously injured while vaccinating heifers. Tammy Noble, a registered nurse and education manager with the Iowa Poison Control Center, joins the episode to discuss common poison exposures seen on farms. The episode closes with an important reminder to save the Poison Control Center number—1-800-222-1222—so help is immediately available in an emergency.

Expert: Tammy Nobel, Iowa Poison Control Center

Episode Quote:

“And we do recommend having the Poison Center’s phone number in your phone. Even if you think you’re never going to need it, you certainly might.”

– Tammy Nobel, Iowa Poison Control Center

Transcript

00:10 E Presnall

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.

00:32 E Presnall

In recognition of National Poison Safety Week, which takes place March 18th through the 25th, our next two episodes will focus on poison safety. This week’s episode will primarily discuss preventing exposure to various poisons, including chemicals and hazardous gasses on the farm and in the home.

00:54 E Presnall

This week’s story features a farmer who was willing to share his personal experience with us at the Farm Progress Show in 2022. This story details a type of poisoning that we will discuss later in the episode with our expert.

01:10 A Howard

Hey, I’m Anita. I’m a dairy farmer from Oklahoma, and I got injured last year vaccinating my dairy heifers. I was refilling my syringe after I did already about 10 heifers already. I was refilling the syringe and another heifer bumped me, and instead of refilling, I punched the needle straight through my middle bone in my, in my joint from my thumb—in, out of them and in my hand. I was wearing gloves, and the glove filled up with blood. Everybody was kinda grossed out. I just yanked it all out again. I have an EMT on staff, he checked it all out, and I hit my bone and some nerves and a blood vein. Went to the doctor, we don’t have to go to the ER, the doctor is, he’s willing to see us, small-town living, thank you! And they put me on antibiotics but my whole arm still swelling up the next day and everything. For- for two days, I was really swollen up, up to my elbow. After that, it came down with antibiotics, and now I cannot move my thumb very well. So, I changed my protocol at the dairy. We don’t use syringes any longer, we use a syringe on top of an, an automatic syringe, so we don’t have to refill in our hands any longer. It’s just, refill the bottle on top. After 5-10 heifers, we usually put a new needle in. So, there’s no more little fishhook on it anymore ‘cause that was the, the main, that was the worst for me, that the little fishhook had to come out as well. That did probably the most damage. So, we, we changed our protocols and I advise everybody to do that.

02:38 E Presnall

For our two-part episode series on poison safety, I talked with Tammy Noble from the Iowa Poison Control Center. Tammy and I discussed some of the common exposures to poisons, including activities that pose an increased risk of exposure and the route in which you are most likely to be exposed while completing these activities. Our conversation may help you be more mindful of the poisons that are commonly found in the home and on the farm.

03:06 T Noble

My name is Tammy Noble, and I am a registered nurse and I work at the Iowa Poison Control Center, and I've been with the Poison Center for 33 years. Right now, my title is education and outreach manager, so my responsibility is making sure people in the state know that we have a poison center and what the phone number is. But I'm also a certified specialist. I do answer calls on the poison hotline when people call in. I'm one of the voices that people hear on the other end of the phone.

03:40 E Presnall

I asked Tammy to discuss some of the poison hazards that may be found on the farm or in the home, and what the measures are for protecting yourself from these exposures.

03:50 T Noble

Really, when you think about poisons in general, whether that's on the farm, in a house, at work, poisons are everywhere. There's lots of things that we use in everyday, general activities that can be poisonous if they're misused, if it's used the wrong way, you get too much of it, even things like medicine, which are safe when you take it as prescribed, when you get the wrong amount or you take somebody else's medicine, that could be harmful for you. I grew up on a farm and now thinking back, there's a lot of poison hazards on the farm. For example, we classify here at the poison center things as pesticides is a big one where we think about the insecticides that people spray on the crops, it could be something that they're spraying on their lawn. Otherwise, also herbicides that they spray for the crops to keep the weeds away and then just the general farm pesticides like mouse and rat poison, gopher and mole killers.

05:02 T Noble

Another poison that we get a lot of calls about, especially during the months of November and April, which is typically when we see this being used in Iowa, is anhydrous ammonia. It's something that they'll use on their fields either pre-season for crops or postseason for the crops. And then sometimes people have exposures to the anhydrous ammonia and then in the summertime, sometimes we also see crop dusting incidents where they have crop dusters and they're spraying the fields, but sometimes, somehow it drifts to a different person's farm, or they're outside and they can smell it, and there's questions about that.

T Noble

Some of the other calls that we get about farming incidents, carbon monoxide can happen anywhere, but we do see that happen sometimes on farms. We know that people that have farm animals oftentimes will be vaccinating the animal or they're giving medicine by an injection, and something happens with the cow, and it moves and they poke themselves in the arm or the finger or the leg we know what's going to happen in animals but it's different when it happens to a human.

T Noble

We also see exposures to gasoline, diesel fuel, kerosene, those fuels that we use with machinery on the farm, propane gas is another one, one that can be really problematic is manure pits and sewer gas and those are like when people go down into the manure pits, they start breathing in the fumes from the manure pits and they get overcome and then somebody goes down to try to rescue them, and then they get overcome. And so that is very, very dangerous.

06:47 E Presnall

The needle thick one is interesting. I know that that's a hazard, but I never really thought of it in terms of being a poison. So, I'm glad you brought that up. What are some of the biggest ways that people can protect not only themselves, but anyone else working on the farm or living on the farm – so that includes children, spouses, hired hands – whether that be PPE or certain practices that you put in place, what would you recommend?

07:15 T Noble

Poisonings can happen to anybody at any age. We get calls about people in their 90s that accidentally make a mistake while majority of the calls, I'd say about 43% of our calls each year are about children under the age of 6. So, we know that kids that age group do get poisoned frequently because they can't read the label. Everything looks like it's safe to them and they put everything in their mouth, that's how they learn about things, but adults and teenagers also get poisoned and things that you can do to just prevent and protect yourself from having a poison accident happened to you, the big thing is reading the label. Whether it's taking medicine or you're spraying your lawn or using a chemical on the farm, read the label to know what the precautions are. The label will tell you if you should be wearing personal protective equipment and they'll even tell you what's best to wear. We also recommend that anytime you are using something that's a potential poison, you want to make sure that you're also washing your hands afterwards. Let's say you accidentally get sprayed by something while you're spraying out in the yard, the safest thing to do is to wash yourself right away, whether that's washing your arms or washing your face, or if you get sprayed all over, then taking a shower. So, the longer it's on the body the more it can be absorbed through the skin. Also washing your hands before eating, smoking, or taking medicine is the other big one. And we do recommend having the poison center's phone number in your phone. Even if you think you're never going to need it, you certainly might.

09:08 E Presnall

The use of hazardous chemicals on your farm is likely to increase as spring planting approaches. It's important to be conscious of how to safely store, transport, dispose and use agrichemicals. Some suggestions for safe storage of chemicals include: always follow the manufacturer's instructions for proper storage; keep chemicals in their original containers and do not pour into smaller bottles; do not remove labels from containers; store chemicals in a locked, well-ventilated shed with floors that will contain spills; store chemicals and appropriate personal protective equipment in different locations; store the filter(s) from masks separately to contaminated protective equipment when not in use – for example, in a zip-locked bag or an ice-cream container; do not store liquid chemicals above solids; separate different classes of chemicals to prevent reactions; store animal feeds, seeds, and fertilizers separately from other chemicals; have mop-up materials on hand, such as sand, soil or DrySorb; keep ignition sources well away from chemicals; and, keep a record of the chemicals you buy, store and use.

10:28 E Presnall

Suggestion for safe transport of agrichemicals include: transport chemicals separately from food, water, animal feeds, seeds, and fertilizers; drums of agrichemicals should NOT be transported in enclosed cabins with the driver and passengers; secure the load; carry a written record of the chemicals you are transporting; and, take all appropriate protective gear along with you.

10:56 E Presnall

For safe disposal of agrichemicals: always follow the manufacturer's instructions for proper disposal of both chemicals and rinse water or rinsate from equipment; thoroughly triple rinse and then puncture empty containers to prevent reuse for other purposes; return empty containers to the manufacturer or check with your local council about proper disposal methods; and, audit your chemical store on a regular basis and dispose of any excess or outdated chemicals in the appropriate manner.

11:30 E Presnall

Lastly, pesticides are classified for either general or restricted use. Anyone can use a pesticide labeled general, but those labeled restricted must be handled by a certified person. If you are under 16, you cannot handle any pesticides, pesticide containers, or decontaminating equipment. For more information on Youth in Agriculture, visit www.osha.gov/etools/youth-agriculture/chemicals-pesticides, or click on the link listed under this episode's resources. Recommendations for the safe use of agrichemicals include: ensure anyone using agrichemicals is suitably trained to use both the chemical and any equipment required for application; use chemical decanting kits to reduce the risk of spills and splashes while mixing chemicals; only mix the quantity of the chemical required for the task at hand; make sure the decanting and mixing area is well ventilated. If this is not possible, ensure that the recommended PPE is worn for the enclosed environments; follow the manufacturer's instructions on the label; always wear recommended PPE, including chemical-resistant gloves, chemical-resistant overalls, goggles, and the appropriate respirator, either an N95 dust mask for dry, non-oily particle exposures, or an elastomeric respirator with the appropriate chemical cartridge for other chemicals; avoid exposing non-target animals or plants; and, triple rinse equipment after chemical application and dispose of the rinsate appropriately. You can find a list of these recommendations for storing, transporting, disposing, and using agrichemicals under the resources for this episode.

13:33 E Presnall

For this week's episode on poison safety prevention, take a second to jot down the phone number for the Poison Control Center. This number is 1-800-222-1222. Put this number in your phone and also write it down and have it posted around your farm where chemicals are stored and handled.

14:00 E Presnall

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

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's questions you have or topics that you want to hear about on the air. You can visit our website, gpcah.org, or email us.

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

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Episode Resources

- **Needle Stick Prevention on the Farm**, UMASH: <https://umash.umn.edu/wp-content/uploads/2020/10/Needlestick-Farmworkers-FactSheet-2020.pdf>
- **Farm Safety Check: Manure Management**, UMASH: <https://umash.umn.edu/farm-safety-check-manure-management-checklist/>
- **Farm Safety Assessment**, Rural Mutual Insurance: <https://www.ruralmutual.com/wp-content/uploads/2014/12/Rural-Mutual-Farm-Safety-Assessment.pdf>
- **Youth in Agriculture, Child Labor Laws**, OSHA: <https://www.osha.gov/etools/youth-agriculture/chemicals-pesticides>
- **Agrichemicals: Storage, Transport, Disposal & Use Recommendations**

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