



Food Safety and Farm to School Webinar

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NINA HEINZINGER: Welcome to the farm to school webinar hosted by Aubree Roth, the Montana Farm to School Coordinator, and myself, Nina Heinzinger with Food and Consumer Safety, which is part of DPHHS. The objectives of this webinar today are to provide you with an overview of Farm to School in Montana and share success stories from our local schools. We will review local food procurement avenues and best practices related to food safety in school gardens. Finally, we will examine the regulations related to serving local foods in schools and in particular produce, milk, eggs, and meat. And right now I'm going to turn the screen over to Aubree Roth, who's here with us and she will give you an overview of the program, some success stories, as well as information on local food procurement.

AUBREE ROTH: Awesome well thank you so much Nina, it's a pleasure to join you with this webinar. This is a really important topic and one that we get a lot of questions about, so as Nina said, I'm Aubree Roth and I am the Montana Farm to School Coordinator for Montana Team Nutrition Program. Montana Team Nutrition Program works in close collaboration with the Office of Public Instruction's School Nutrition Programs to provide training and guidance to schools, and we're housed at Montana State University. Montana Farm to School is a collaboration between Montana Office of Public Instruction, Montana Team Nutrition program, Montana State University, and other partners. So just to get all on the same page here, farm to school is an umbrella term or movement to connect children to their food to improve their health, support farmers, ranchers, and food businesses, and strengthen communities through the three core elements, as shown here. Procurement local foods are purchased, promoted, and served in the cafeteria or as a snack or taste test. Education – students participate in education activities related to agriculture, food health or nutrition, and school gardens. Students

engage in hands-on learning through growing and raising food. Farm to school programs generally work best when each of the three core elements are represented. As you will see throughout the webinar, there are many ways to implement farm to school. Farm to school is not a program you sign up to do, rather, you build it to meet your school's interests and resources. So let's take a look at each of these three core elements with examples from around Montana. So first - procurement - which includes buying and surveying local foods in school and after-school meals and snacks. In farm to school we're looking at local foods from all five food groups. It is up to the school how "local" is defined, but the most common definition is grown or raised in Montana. It could also be a certain number of miles from the school or within the county. It is important to come up with a definition that makes sense for the community and the local products they're hoping to include. Local foods can be featured in special meals with many different local foods, like the Manhattan Christian meal shown here, which featured over a dozen different local food vendors and local foods could also be featured throughout the year. The local foods could be purchased or donated from local farmers, ranchers, processors, or other vendors. Schools can also source some of their local food from school gardens and farms. Livingston School District shown here does both the meal shown on the left includes garlic and baby kale that was grown at the school with leadership from a local nonprofit, Farm to School of Park County. Montana is also home to an innovative farm-to-school model. Students at Missoula County Public Schools are raising, harvesting, and processing beef in their new state-inspected processing facility, which is on district property and the school district is now serving that beef in school meals. This is a perfect example of how farm to school programs are built at the community level with local interests and resources in mind and as I mentioned before, schools are purchasing or receiving donated foods from many different sources. This can include school gardens or farms where students are helping to grow or raise the food, farmers or ranchers who are donating or selling the food to schools, processors including those who are doing minimally processed produce, processing meat doing value-added baked goods or other processed products. Distributors and DOD Fresh, this year, Office of Public Instruction was able to work with the current DOD Fresh vendor, which is Grasmick produce, to get Montana grown apples on the catalog for October. Growing and raising food with students is a great way to engage them in the process and get them excited about unfamiliar foods. Students who grow broccoli will eat broccoli and a whole lot more. School gardens vary in size, type, and purpose. Gardens could be in-ground gardens or raised beds for educational purposes like the ones shown here in Missoula. located on the Highline, Hinsdale School boasts an incredible school garden and orchard with a passive solar greenhouse and root cellar, both of which the students helped build the students learn about many topics in the garden, conduct experiments, and get to try delicious produce thanks to their committed teacher Patty Armbrister. The cafeteria also uses this garden produce in their school meals. In some schools, students are helping with the extra prep for some of these foods that take extra time and effort, like winter squash. They are receiving food safety training and in some cases, getting serve-safe certified so they can work in the kitchen. Your garden could even be unconventional like Gallatin Valley Farm to School's Bob the Greenhouse Bus that provides mobile school garden education throughout the Gallatin Valley. Other schools have greenhouses, grow towers, aquaponic systems, and others. The education element includes food, nutrition, and agriculture-based education. Farm to school education can connect to and support learning in many different topics because it provides an experiential, relevant learning medium and it's delicious and fun! Farm to school education can take place anywhere. Here, Gallatin Valley Farm to School provides in-classroom lessons at a Bozeman elementary school. The growth program at Ennis School has been cooking up a Harvest of the Month storm! The students made heart-shaped beet ravioli. This education piece can also include farm field trips, bringing producers into the classroom, and more. Farm to school

is well rooted in Montana. Over half of Montana schools are participating in at least one of the farm to school core elements. This includes 48 percent are serving local foods in their school meals, 22 percent are conducting nutrition AG and food-based education, and 19 percent are creating and tending school gardens. And although you might not have heard of the. Farm to school initiatives that are happening throughout the state before, the farm to school movement is growing quickly and some schools may not call what they are doing as farm to school since they might have been doing it for years. For example, Dillon School has been serving local beef from the 4-H auction for maybe 20 years or more. Farm to school can be an excellent way to increase students' acceptance of quality fresh foods by engaging them in the process, providing educational opportunities, and using proven promotion techniques. We want to see nourished kids, not full garbage cans. In addition, serving local foods focuses on quality and seasonality. Just think of the difference in the taste of a tomato in January that was developed to be machine picked while green versus a taste of a garden tomato that's picked when ripe in summer. Buying local foods and growing school gardens helps get access to the most flavorful and fresh foods, which makes a huge difference in whether students are willing to eat the unfamiliar foods. There are many benefits to farm to school programs and I encourage you to read the farm to school benefits fact sheet whose link is shown on the bottom of this slide to better understand the proven benefits of these programs. Montana Harvest of the Month is one way you can implement farm to school, as it provides an easy framework to follow, ready to use materials, and helpful resources. The Montana Harvest of the Month program features a different Montana grown or raised food each month. Shown here is our calendar for this school year. We strive to add new foods each year and change the calendar to keep it fresh. It is free to register and participating sites will form a team upon registering, showcase the harvest of the month food for that month in a meal or snack, education activity, and a taste test, sites will promote the program using the materials provided, and lastly sites will participate in evaluation. Each site receives a printed set of materials that includes posters, cafeteria bites handouts, classroom bites handouts, home handouts, and a static cling. We also provide electronic versions of these materials, recipe cards, menu templates, videos, and more. The program is open to K through 12 schools and after-school programs, summer food service programs, early care and education sites, healthcare facilities, grocery stores, and food pantries. So, with that, I'll hand it back over to Nina now that you have a foundation of what's happening in farm to school around the state.

NINA HEINZINGER: So now we're going to focus on some food safety in the various aspects of farm to school. So first we'd like to look at school gardens and some of the best practices for school gardens. There are some basic questions that you should ask before you embark on a school garden or if you are evaluating a school garden and its operation. Same question list that we often see – the why where when who what and how questions. Aubree touched on the why, but I want to delve deeper into the others with the idea of food safety overlying the decisions that are made. So first let's look at the where we will look at both inside and outside setups for outdoor settings. There are a lot of questions to ask. One of the first questions is the soil in the area – you need to consider what is there right now and the previous history of that spot. Could the site be contaminated with chemicals or heavy metals? You should conduct a soil test using the ground soil if you plan to have in-ground beds. Your local Extension agent can help you with this soil testing. There are other considerations too, when you start to look at a site. Is the site easily accessible to water? Plants need water. Is there a fence or barrier around the garden so that animals cannot get in? That's something to think about especially with all the wildlife here in Montana. Will you be installing raised beds if so, think about the materials used to build the beds. It should not be treated wood or old tires, as both of these can leach chemicals into the

soil. Also, if you are bringing in soil, make sure it comes from a tested source and is designed for a food garden. Often this soil will be found at nurseries or other local sources. Another consideration is the ground cover used in the garden that it is easy for students to walk on while limiting the growth of weeds. Wood, mulch, gravel, or grass may be used. Grass will require ongoing maintenance and cutting. You will want to make garden accessible for all students so think about the space between the beds using high beds or other adaptations for students with special needs or disabilities. Besides outdoor sites, you can also have indoor sites and this is another great possibility for schools instead of or in addition to an outdoor garden. This will require space, which may be limited in a school building. Also consider the surface that the plants will be on - what carpet can actually lead to mold growth. You will need to buy grow lights to supplement any natural light available. There are many different systems available to grow things indoors besides using soil, including hydroponics and aquaponics systems. A hydroponic system does not have soil, instead the roots of the plants are bathed in water that contains nutrients. The water is usually circulated by a pump. The picture here is of one type of a hydroponic system called a tower where the water is pumped up to the top and then runs over the plant roots. Aquaponics adds fish to a growing system for plants. This allows the plants to use the byproducts of the fish production as nutrients. Raising fish in Montana is regulated by Fish Wildlife and Parks so make sure to contact them if you are considering an aquaponics system. The next question if you're considering a school garden indoor or outdoor is who will be involved and support the project. Most schools form committees or parent groups to support the garden. Usually it takes a wide variety of people to get the garden built including volunteers, gardening groups, high school shop classes, and others to both raise the funds and conduct the building of the garden. Unfortunately, if the next two items are not planned for in the beginning, often the garden can quickly become an eyesore. You need to have ongoing maintenance during the school year and the summer by individuals that are committed to the garden and it is important that they are practicing food safety. So, having a plan and making sure that the people involved are following it are important when you talk about a school garden. Then we need to think about the when because Montana has a very short outdoor growing season especially depending on which part of the state you live in. If your garden is outdoors, it will be limited mostly to the summer months although there are some early and some late crops. A greenhouse is expensive but can expand that outdoor growing season. If you move indoors you can expand the growing season to the school year, although you will be more limited in space and will probably require special equipment such as the grow lights. Another consideration if you move inside will be pest control and how it is handled. Obviously, you do not want the pests flying around in the school. When we talk about what to grow this is probably the most exciting question. There's lots of different possibilities as to what you can grow both indoors and outdoors you may want to consider perennials that come back every year or annuals that must be planted each year. On the safety side you should label the plants. Additional information should be provided if the plant has poisonous parts such as rhubarb. You don't want anybody eating the leaves. You will have to consider how long it takes the plant to grow and if you want to grow fruits and/or vegetables. There's lots of possibilities for Montana and the MSU Extension Montguides are great resource for you. When planting perennials, keep in mind what grows well here in Montana. Your local Extension agent can be a great source of information along with your local nurseries. You must plant varieties that are adapted to our climate and soil. Finally, the how. This is an important part of your planning. A watering system is a key part of that plan. You need to consider whether you will hand water or use a drip system that can consistently deliver water to the plants. It's important to know whether that water is drinkable or not that you are using on the plants. Many irrigation systems may not be drinkable water the water may come from a well that has not been tested and is not part of the usual school water system. If you do not know the

water source it's best not to use it for drinking, in the garden, or washing the produce that is consumed in the garden. Chemicals and fertilizers are also important. They need to be examined before use in the garden. It's best to use physical methods for pest management, such as spraying water on plants and this can actually knock off those pests when you do it. Fertilizers should only be applied by adults and kept secure to avoid accidental poisoning of children. The other thing that you want to consider is compost and manure. Before you use composted manure in a garden there are several questions to ask: does it contain the compost contain raw manure or animal products? These could contain microorganisms that can cause disease. We recommend that you actually use commercially prepared compost to lower the risks. When manure, fresh manure, is used it can come in contact with the food grown in the garden. If you do choose to maintain a compost pile and carry out composting, make sure that the people in charge understand the time and commitment to it do properly, especially if they're using food wastes as compost. We want to make sure that compost that we're using in the garden is safe and free of pathogenic organisms. And finally, you've had a productive garden and now it's time to harvest. This is where you should have a food safety program for your garden for harvesting. It should address the harvesting and handling of the produce. Hand washing before harvest is advised so the hands do not introduce stuff onto the produce. Harvest containers should be cleaned and sanitized to remove any bacteria present. Wicker baskets are beautiful but very hard to clean, A plastic container for harvest is much better. You must also be aware of allergies in the garden, both to various foods as well as to bees when you bring the kids into the garden. The produce should be handled carefully, preferably with gloves, especially if it is then going to be eaten without being cooked. Any produce taken from the garden should be washed before eaten. If the produce is used in the cafeteria, it must be washed and cleaned. The cafeteria should keep track of that produce used from the garden in the cafeteria to produce various foods. So now we're to look at the actual regulations about local foods in schools. These regulations govern the food used in schools. A new school rule went into effect this January and it requires foodservice operations to follow the administrative rules of Montana for retail food, which also regulates restaurants and grocery stores. Even if a school only feeds students and staff, they still need to follow these regulations even though they're not required to have a retail food license. There's many different agencies that have regulations in Montana related to food. DPHHS, which I'm part of, regulates the retail and wholesale food in Montana. Most food coming into a school will fall under that wholesale category. Sales from one business to another. The Department of Agriculture regulates the produce and the Department of Livestock regulates the meat, poultry, eggs, and milk. Under the food law, the retail food law, we adopted the FDA Food Code, which says that a food shall be obtained from sources that comply with law. This is what a sanitarian will often call the approved source, and we'll go through what those look like for the different types of commodities. Tribes may have different rules when you talk about these rules, so please check with your tribal sanitarian to determine what rules apply and if you have questions. So let's talk a little bit about produce. Produce can come from a variety of different sources. When we look at schools, it may come from the school garden, it may come from local producers, it may come from distributors such as Costco, it may come through USDA foods or the DOD Fresh program as well, so you can have a variety different sources. The produce could be local, regional, or from other areas of the state or from other countries. Produce coming from Montana sources will be regulated by the Montana Department of Agriculture. The produce producer should have a produce dealer license issued by the Department of Agriculture. And you may have heard of FSMA, or the Food Safety Modernization Act, this included a rule, the produce safety rule, that requires farms to have a food safety plan. Most farms in Montana are actually exempt from this regulation due to their size, but adopting a food safety plan is still encouraged for farms. So what should you do before receiving produce at a school? Ask questions to ensure that the

farm is using best practices to keep the produce safe. Farms may be GAP certified, which means that they're following good agricultural practices. In the resource section we also include a local procurement checklist that is also available on the farm to school website of questions to ask your local producer about their safety practice. You should set standards for receiving produce. This includes donated produce as well as produce you buy. Donated produce may be given to your staff if its safety is not known. Finally, the cafeteria should be keeping records for all the produce used in the cafeteria along with their other records and when a sanitarian comes to inspect your school they may ask you questions about where your produce or other products are coming from so that they can determine that you are using approved sources. These records will help support the information that you provide them.

Milk. Most of our school children drink milk, and milk is specified in the FDA Food Code chapter 3 and reads as follows: fluid milk and milk products shall be obtained from sources that comply with grade A standards as specified in law. So this means that all schools need to meet this requirement because we have adopted the FDA Food Code as part of the Retail Food Law. So, what does that mean when you're looking at milk? Well, milk must meet the state requirements and the title and chapter listed there for those state requirements in both the code and the administrative rules and then milk is regulated through the Department of Livestock. Specifically, the Milk and Egg Bureau. Milk is required to be grade A pasteurized and should be within the sell by date on the container. This is part of the regulations for milk. Other agreements may be reached with the Milk Bureau. There are also specific language in the food code about eggs. They must be received at a certain temperature, which is forty-five degrees or less and they must be grade B or better. So, the eggs that you're using in a school setting should be graded. This is in line with the state requirements, again, in both the Montana Code and the administrative rules. These are regulated, again, by the Milk and Egg Bureau. The Milk and Egg Bureau does have grader licenses available, and you would contact them to obtain a grader license if you wish to use local eggs that were not graded. There's additional information about egg grading on the USD site and the ATTRA site. If you want to explore what's going on with small egg productions, often you can obtain locally raised and graded eggs in your communities. So again, sometimes reaching out to your local stores or other places that need to also provide those graded eggs can give you connections to the local community. Now one of our favorite topics, and we get lots of questions on, is beef and pork, so we're talking about meat here. Gary Hamel over at the Department of Livestock is available to help you out. He can answer questions, he's been involved with farm to school. But we see using Montana meat as one of the ways to bring local products into the school. There's a lot of great information on the farm to school website under Montana beef to school. It includes a FAQ, a frequently asked question, as well as a Montguide. And I really recommend that you read these as you start to use local beef in your school, whether the beef is coming from a donated animal or you are going out and buying or paying for locally sourced beef, this can provide you with a lot of information. The meat must be slaughtered at a USDA or state inspected facility. It must further be processed there at that facility or it could be taken to a licensed retail meat establishment for processing. No custom exempt meat is allowed in schools. This is important to check, especially for donated meat. Custom exempt meat may not be donated to a school. So, if you have further on questions on this, feel free to contact the Department of Livestock, but please visit that Montana beef to school webpage. There's a lot of good information in there on what different schools are doing with both purchased and donated meat. Now we're going to look at poultry. So, poultry is also regulated by the Department of Livestock. The meat should be labeled to show compliance with state and federal law. The birds may be inspected by either the FDA or by the Montana Department of Livestock. If they have fewer birds, they may fall under a public law exemption called public law 90 - 492 and those birds would be stamped with that public law exemption numbers to show that they are exempt. Again, we want to ensure that

the birds are safe and that you have information on the source recorded in your records. the DOL, the Department of Livestock, website does have a list of processors in that. I want to touch on one other thing because we often see poultry coming into schools and that's something to keep in mind, especially if you're working with farm to school and if people want to bring in like baby chicks or chickens, I know that they're very in Montana we have had several outbreaks attached to backyard flocks and backyard poultry where people end up with Salmonella from handling the birds, so you want to practice safe handling if those birds are being brought into a school setting, obviously keeping them separate from any food, washing of hands, making sure that they're not contaminating a classroom area, so again that's really important as you move forward and think about bringing different people into the classroom and bringing different types of things into the classroom to protect those students from possible outbreaks. So now I'd like to turn things back over to Aubree Roth and she will kind of give you a recap here, as well as some upcoming events.

AUBREE ROTH: Great, well thank you so much Nina. That was a lot of great information and all in one place, which I'm sure many of you appreciate having all of that together. So as Nina said, there's resources available to help you, so I'll share a few in this section but I really encourage you to check out the Montana Farm to School website for additional resources because of what I'm gonna share now is really just the tip of the iceberg. So just know that there's a lot out there to support you. So here are a few guides to help schools, producers, and support organizations with buying and serving local foods. The Montana Farm to Cafeteria guide provides guidance about best practices and regulations for serving local foods, and it includes a produce checklist template which you're welcome to use, but is not required for schools to use. The USDA local procurement guide, the second bullet here, helps schools navigate the procurement regulations and processes so those micro, small, and formal procurement methods. And as Nina mentioned earlier, we have created some beef to school resources, including beef to school templates that make it easier for schools to purchase local beef with informal and formal procurement methods that they have to use for purchases, and those apply to anything from apples to napkins to equipment, so I'm just making sure that they're following those for purchasing local foods as well. So in addition to those templates, we also have more beef to school resources such as the case study that goes through successful beef to school models from 4-H cattle being donated to the Dillon School that I mentioned earlier, to schools buying beef from local processors, like Kalispell School District. Slow Foods Garden to Cafeteria manual help schools that are interested in serving school garden produce in school meals. It contains best practices along with usable templates and standard operating procedures to ensure good food handling practices are being used. And then here's just a few resources that I've discussed, including a USDA a memo that gives schools permission and guidance for school gardens and farm to school initiatives. The Food Safety Tips for School Gardens is from the Institute of Child Nutrition and USDA, and although it's six pages long it's a pretty good distillation of food safety best practices for school gardens. And these slides will be available, so you can also use those links, rather than trying to scribble them down right now. For those who are looking for extra help with farm to school initiatives, getting them started or expanding them, we do now have two farm to school coaches, Ginger and Faith. They are currently covering northeast and southeast Montana, so if you're interested in their help please contact me or contact them directly. Ginger is in the southeast Montana region and Faith is the northeast. This winter and spring we are we are hosting three Montana Farm to School success webinars as part of the OPI Webinar Wednesday series. Each features three different farm to school stories and we have one live one left, so the February 5th was on procurement and the recording of that is now available. March 4th was education and the recording of that is also now available, and then April 8th is our upcoming live

webinar and that will be on school gardens. We are also hosting two Montana Farm to School Regional Showcases. These one-day events feature tours, training, and networking, so you can experience farm to school programs in person and connect with others. The Fairview showcase has been postponed and the second one will be held on May 6th in Hardin, Montana. Registration is open for the Hardin Showcase, and we will reopen the Fairview Showcase once we are able to reschedule. If the Hardin Showcase is postponed due to COVID-19 and the associated school closures, we will notify participants. So go ahead and register if you're interested, and we'll notify you if there's any changes in that scheduling. We also hope you join us for the next statewide Montana Farm to School Summit, which will be held September 23rd and 24th in Helena. This conference is held every other year and we move locations, so don't miss out! Registration will open soon, and travel scholarships will be available. October is National Farm to School Month and it's a great time to launch or celebrate farm to school programs in your community. And it's never too early to start planning your Montana Crunch Time event, which is a fun way of celebrating National Farm to School Month and by local initiatives. We encourage all Montanans, not just those at schools, to crunch into a locally or regionally grown apple on October 22nd this year. So thank you so much for your time today. If you want more farm to school stories or resources, I highly encourage you follow the Montana Farm to School Facebook and Instagram accounts. It's where we post funding, information, events, etc. and I also encourage you to reach out and contact me if you have any questions or things you would like to share. And thank you for joining us and feel free to check out the Montana Farm to School page!



The Montana Harvest of the Month program showcases Montana grown foods in Montana communities. This program is a collaboration between Montana Farm to School, Office of Public Instruction, Montana Team Nutrition Program, National Center for Appropriate Technology, Montana State University Extension, Gallatin Valley Farm to School, FoodCorps Montana, and Montana Department of Agriculture. More information and resources are available at: www.montana.edu/mtharvestofthemoth.

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