



A Message From the Commissioner

Greetings,

We've been increasing our Farm to School efforts lately and I wanted to make you aware of how local meat and local processors fit so well in this program.

Farm to School is a national movement to provide local foods, education and school gardens in schools. Not only does the program benefit students, but it also benefits producers and local economies. North Dakota is no exception and although in an infancy stage with the program, we are making major headway in getting the program and local producers into more schools.

The North Dakota Department of Agriculture (NDDA), North Dakota Department of Public Instruction (NDDPI) and NDSU Extension teamed up to travel the state these past two months to promote farm to school to producers, child nutrition workers, school officials and interested parents. Five meetings were held and over 100 producers and school officials attended, showing us there is much interest in the program.

Many North Dakota schools are now sourcing meat from local producers. Bismarck Public Schools has paved the way in sourcing local beef. In visiting Legacy High school in mid-December, students were enjoying ground beef in their taco in a bag from Legendary Steaks. Students in Anamoose elementary school are enjoying ground beef from Dakota Angus LLC in soups, stews, casseroles and meatballs. And more communities like Linton, Strasburg, Zeeland, Minot, Wishek, Ashley and Ellendale are all sourcing local meat.

If meat producers are interested in the program, they can contact schools directly for information. Or, NDDA and NDDPI are happy to make the connection and help start the conversation between school and producer.

As we enter 2024, NDDA has made the Farm to School Program an initiative. Please let us know if you are interested in working with producers to process meat destined for local schools. We will continue to work with you to strengthen the industry, add value locally and improve local economies. We look forward to continuing to serve you and ensuring a safe and economical meat supply for consumers.

Sincerely,

Doug Goehring



Meat Messenger

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Labeling of Retail Meat Products

The North Dakota Health and Human Services posted a helpful guidance document on their website. "Proper Labeling: Retail Meat Sales" describes common questions and issues found on retail meat labels and provides information on the proper labeling requirements.

Common issues with product labels:

- Inadequate ingredient statements: The sub-ingredients are required for every ingredient. The full ingredient statement from the supply ingredient list shall be added to the finished meat product.
- Improper use of "Safe Handling Instructions." It is not appropriate to apply the safe handling infographic to fully cooked, ready-to-eat foods.
- Net Weight Statements: The wording "net weight" must be at least 1/8th inch tall and the net weight statement must be on parallel to and within the bottom 30% of the label.

The full document can be found at <https://www.hhs.nd.gov/health/food-and-lodging/food-and-beverage-establishments/retail-food-sales>.



This Safe Handling Instructions infographic should not be applied to ready-to-eat foods.

What would you like to read in the next issue?

The Meat Messenger is your newsletter. If you like the content, please feel free to share this issue with your employees, your livestock producers and customers. We welcome any questions, comments, or suggestions for future topics.

Please contact **Nathan Kroh** at nkroh@nd.gov or 701-328-4767.

NDMPIP Welcomes Our Newest Meat Inspector: Noelle Koch

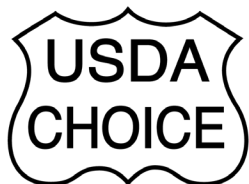


Noelle Koch, originally from Pittsburg, PA, joined the NDMPIP team as the newest inspector. She received her Bachelor of Animal Science Degree from the University of Kentucky. She worked at a general veterinarian practice, and she also worked as a veterinary tech in an emergency department in Kentucky.

She started in early September, and thoroughly enjoyed getting to see the different parts of the state while training. She loves exploring the outdoors, hiking and fishing, and playing with her spitfire of a cowboy corgi.

Meat Grading Services Now Available With North Dakota Inspector

Todd Erickson has completed the necessary training and certification in cooperation with the USDA Agricultural Marketing Service (AMS) to conduct official beef grading.



What is beef grading? The AMS beef graders can evaluate each carcass and give the carcass a specific quality grade, based on the carcass maturity and marbling of the ribeye section. Certified Choice or Prime quality beef

can fetch higher premiums. AMS graders can also provide yield grades, which can be used to evaluate beef carcass finishing characteristics. Some beef producers may augment their feeding and finishing practices based on yield grading. The grading is done on chilled carcasses, after separating the 12th and 13th rib, so the grading services can be scheduled at the convenience of the plant and the grader. More information on carcass grades is available at <https://www.ams.usda.gov/grades-standards/carcass-beef-grades-and-standards>.



*Beef marbling:
slightly abundant*



*Beef marbling:
moderately abundant*

Grading is provided through a fee-based service by the USDA-AMS. Once a plant is approved for AMS grading services, then the USDA will schedule Todd to visit the plant to grade the carcasses. Payment for services will be paid directly to the USDA-AMS. The application for grading services is available at <https://www.ams.usda.gov/resources/lps109>.

Butcher's Edge, LLC: ND's Latest Cooperative Interstate Shipment Program Plant



Butcher's Edge in Edgeley was nominated and selected for the Cooperative Interstate Shipment (CIS) program. This program allows selected establishments to produce meat products under North Dakota inspection, but apply the federal inspection legend. Those products are eligible to be shipped anywhere in the U.S.

Butcher's Edge is also the first plant in North Dakota approved to slaughter under the CIS program. The plant started under state inspection in October 2022 and they have been slowly adding clients. They saw that the CIS program would provide a good option for some of their customers, since they can now ship local North Dakota raised beef out-of-state as their market grows.

North Dakota has participated in the CIS program since 2011 and was the second state in the nation approved. For the North Dakota Meat and Poultry Inspection Program to participate in the CIS program, the state must meet the same inspection requirements as the USDA inspection services, including inspector training, inspection program software and laboratory services. North Dakota currently has seven processing plants and now one slaughter plant under the CIS program.

Captive Bolt Guns: What is the Best Option?

The Humane Handling Institute from the University of Wisconsin - River Falls recently presented a webinar with the Niche Meat Processor Assistance Network. The presentation covered many humane handling ideas and highlighted the unique training center for humane handling in Wisconsin. They have training facilities and life-size animal displays that people can practice stunning on.

At around the 45-minute mark in the video, the presenters described the best option for captive bolt guns. By design, the pistol grip style stunners have a series of buffers that absorb the force, which reduces the amount of power and limits the travel distance of the bolt. A much better option is a canister style stunner that does not have the self-retracting bolt. They drive much more force, much deeper into the brain. The presenters encourage anyone with a pistol-grip style stunner to replace it with a non-self-retracting captive bolt. He also demonstrated the proper way to reset the bolt, without dulling edge of the bolt.

The full video is available at <https://www.youtube.com/watch?v=WQVEQsV0SLc>, or search youtube.com for NMPAN Live Human Handling Q&A with the Humane Handling Institute.

Traditional Products Not Likely to Be Found in North Dakota

Haggis: A Scottish savory pudding made by boiling sheep stomach stuffed with sheep's pluck (heart, liver, lungs), oatmeal, onion, suet and spices. Traditional haggis is not legal to produce in the US, because the USDA banned the use of livestock lungs for human food in 1971 (9 CFR 310.16). Today, haggis is often deep fried and served in Scottish fast-food establishments.



Horse Meat: American horse meat is a delicacy in Europe and Japan, costing as much as veal. Horses are not slaughtered in the US, because the USDA is not funded to provide inspection. Mexico is the largest producer of horse meat in the world, but they do not consume much of it. Consumption of horse meat varies wildly across the world but is most acceptable in eastern Europe and a few Asian countries.



Cockscomb: An obscure type of chicken offal, cockscomb has been lessening in popularity. Soft textured with little flavor, cockscomb is not fatty and not gristly. It is described like a soft chicken dumpling or a soft little chicken nugget. Would you try one?

Animal Heads: Anyone ever ask you to save the head? Keep in mind that 9 CFR 318.5 requires that the heads are thoroughly cleaned after the following are removed:

- Bodies of the teeth
- Turbinate and ethmoid bones
- Ear tubes and
- Horn butts

Calculate Fat Using a Microwave

How many customers want to know how much fat is in your burger? Can you confidently tell them what the ratio is?

Cooking off some ground beef and weighing the fat might give you an idea, but not all the fat will render out and separating the fat is tedious. The most accurate method involves hydrolysis of the fat using sulfuric acid and spinning specialized measuring flasks in a centrifuge, which isn't very feasible or affordable for small butcher shops. Do you have a microwave, a scale accurate to 0.1 grams and a couple of heat proof glasses? You can accurately calculate the fat in your meat in just a few minutes.

Penn State Extension posted a great video explaining the method and procedures for using a microwave to calculate meat fat at <https://extension.psu.edu/determining-fat-content-in-meat>.

(continued on next page)

Calculate Fat Using a Microwave (continued)

The principle is simple. If you can determine the percentage of moisture in ground meat, then you can calculate the fat percentage using a simple formulation. The key to accurate measurements is calibrating your microwave by experimenting with heating times until the meat is dry, but not desiccated. Once you know the weights before and after drying, you can calculate the chemical lean composition of the meat and you will know what the fat percentage is.

$$\text{Chemical lean} = (\% \text{ moisture} \times 1.27) + 1.1$$

Quick example: A sample of meat lost 72.5% of its weight after drying, meaning the moisture = 72.5%.

$\text{Chemical lean} = (72.5 \times 1.27) + 1.1 = 93.175$;
also considered 93% lean beef or 6.825% fat.

$$\begin{aligned} \text{Lean meat} &= (\% \text{ moisture} \times 1.27) + 1.1 \\ \% \text{ fat equation} &= 100 - \text{chemical lean} \end{aligned}$$

If you choose to label your fat-to-lean ratio, you will need to stay above a 20% variability of fat, so 90% lean must be at least 88% lean or no more 12% fat to be labeled as 90% lean/10% fat ground beef or pork. Sausage makers should always know their fat, so they can modify every batch recipe for very consistent fat content, which will lead to consistent flavor, texture and eating experiences.

Astronauts Like Meat

Yuri Gagarin was the first person to eat in space. During his 108-minute flight, he sucked down a tube of pureed beef and a tube of liver paste. At the time, scientist were not even sure if swallowing was possible in zero gravity. Today astronauts can pick from more than 100 menu items, most of which are freeze-dried or irradiated.

John Young didn't like NASA's options for food, so he smuggled a corned beef sandwich onboard Gemini 3 in 1965. Turns out the rye breadcrumbs posed a hazard to the fine electrical components. The contraband sandwich was such an issue, members of Congress launched an investigation to determine how the sandwich endangered the mission.

Webb, A. (2022). *Food in space: what do astronauts eat?* Available at <https://www.space.com/what-do-astronauts-eat-space-food>.

Betz, E. (2020) *First food in space: toothpaste tubes of applesauce and beef.* Available at <https://www.astronomy.com/space-exploration/first-food-in-space-toothpaste-tubes-of-applesauce-and-beef/>.



Classified Ads

We are always looking for industry-related items to advertise in the Meat Messenger. We post sale and want ads FREE. Contact Nathan Kroh at 701-328-4767 or nkroh@nd.gov with a product description and contact information.

3-Door Turbo Air Display Freezer: In working condition. Please contact Calvin or Alex for more information at 701-743-4451. Located in Parshall.

Smokehouse: Koch Grand Prize 3 - cart, jerky screens, rods and smoke generator, \$35,000. Call Dave Selensky at 701-465-3261, Selensky Meats, Drake ND.

Hobart 403 Meat Tenderizer: SN 56-937-022, blades were replaced less than a year ago, \$1,500.

Bizerba A 404fb Digital Meat slicer/stacker: Slices bacon, deli meat etc., slices/shingles/stacks, SN 10563332, \$12,500.

Promax DC900 Auto Swing lid Double chamber Vac Sealer: High production machine, all functioning order, with extra wear parts included, SN P11080415, \$15,000 OBO.

Rail Trolleys: heavy-duty carcass trolleys. 100 available. \$18 each.
Call Mema's Meats at 701-453-3401, Berthold, ND.

Pro Smoker N Roaster Model T500 with a pc400 controller. Brand new in 2020. Pro smoker and roaster pellet smoke generator, product cart, sticks and jerky screens. Asking \$40,000.00. Call Greg at S & K Processing, Minot, ND. 701-839-6488.

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