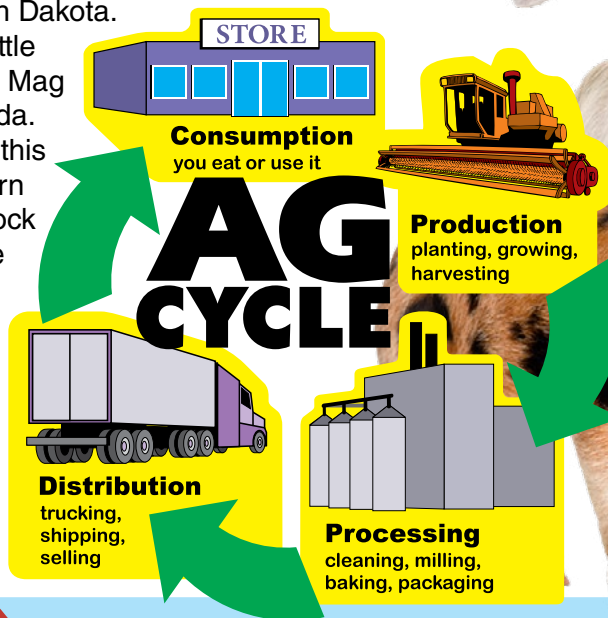


Livestock

Many different farm animals are raised in North Dakota. Beef and dairy cattle have their own Ag Mag issues at www.ndda.nd.gov/agmag. In this Ag Mag, you'll learn about other livestock and their Ag Cycle of production, processing, distribution and consumption.



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Livestock

is another word for farm animals rather than pets.

Farm Animal Families

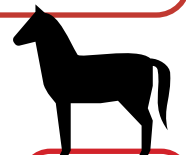
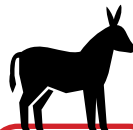
Use the word bank to write the name of each species' "father" on the blue line, its "mother" on the pink line and its "child" on the green line.

Father

Mother

Child

- ~~Bull~~ Lamb Poultry Ewe ~~Calf~~ Sow Piglet Ram ~~Cow~~ Rooster Kid Chick
- Foal Boar Mare Foal Buck Hen Doe Jack Tom Stallion Hen Jenny



Bison

Chicken

Sheep

Donkey

Turkey

Pig

Goat

Horse

Bull

Cow

Calf



Sheep

About 63,000 sheep are raised in North Dakota each year. Complete these math problems to learn more about sheep.

North Dakota has about 63,000 sheep and lambs. The state's population is about 784,000 people. How many more people than sheep and lambs are in North Dakota?

1

The breeds of sheep raised in North Dakota produce about 8 pounds of wool each year per animal. How many pounds of wool will 16 sheep produce?

2

If a farmer's 10 sheep produce 80 pounds of wool, and she is paid \$.95 per pound of wool, how much money will she make?

3

The amount of yarn that can be made from a pound of wool depends on the type of wool, the thickness of the yarn, the spinning method used and other factors. However, on average, 1 pound of wool can yield about 200 yards of yarn. How many yards of yarn can be made from 5 pounds of wool?

4

About one-half of a live lamb's weight will result in meat. If a lamb weighs 90 pounds, how many pounds of meat will it produce?

5

If an ewe produces 1/2 gallon of milk each day, how many gallons will she produce in a week?

6

About 6 pounds of sheep milk are needed to make 1 pound of sheep cheese. How many pounds of milk are needed to produce 5 pounds of cheese?

7

If a farmer raises 31 sheep on his farm, how many is that rounded to the nearest 10? If the farmer raises 13 for meat, 8 for milk, 6 for wool and 4 to keep as pets, what is each rounded to the nearest 10?

Total sheep 31 =

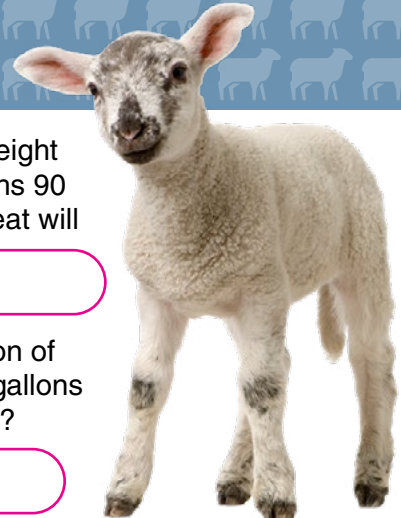
Meat 13 =

Milk 8 =

Wool 6 =

Pets 4 =

8



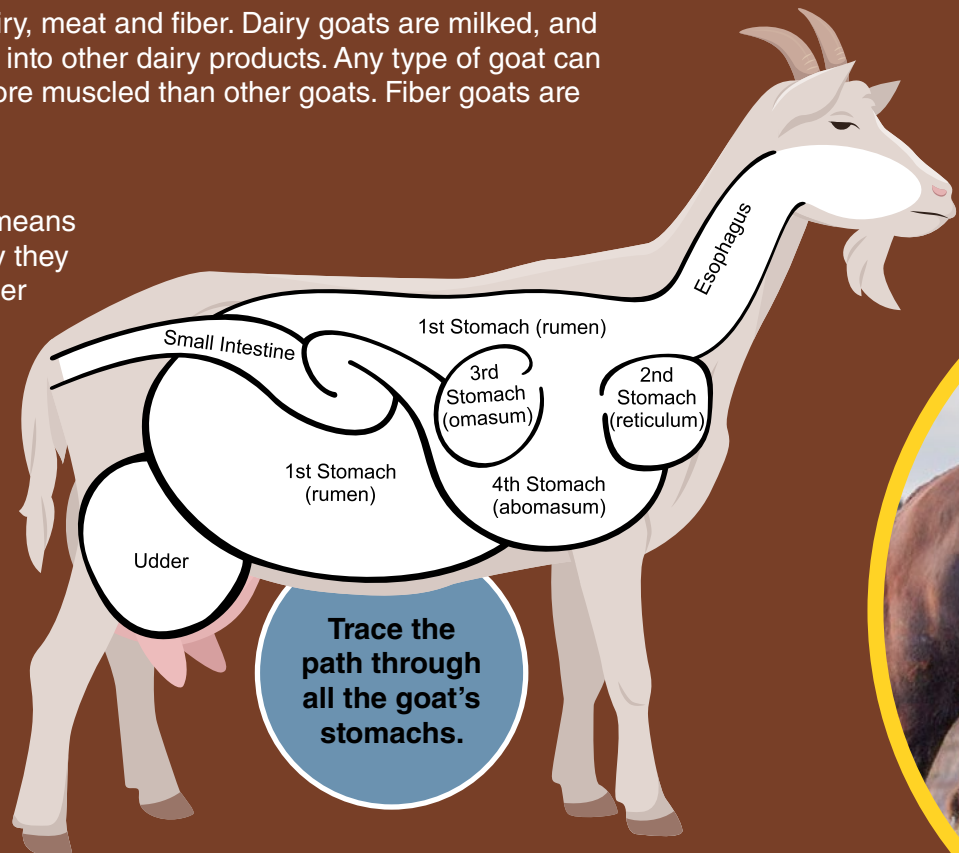
Goats

There are three basic types of goats: dairy, meat and fiber. Dairy goats are milked, and the fluid milk can be consumed or made into other dairy products. Any type of goat can be used for meat, but meat goats are more muscled than other goats. Fiber goats are raised for the fiber from their fleeces.

A Four-Part Stomach

Sheep and goats are ruminants, which means they have four-part stomachs. That's why they can digest coarse feeds like hay that other animals and people can't eat. It's also why they can swallow their food quickly without chewing it well.

The food goes into the first and second stomachs. When the goat has eaten its fill, it belches up a small amount of food, called a cud, to chew again. After chewing the cud thoroughly, the goat swallows it, and it goes into the third stomach. From there, it moves on to the fourth stomach – the true stomach where digestion actually occurs.



Pigs

What most of us call *pigs* also can be called *hogs* or *swine*. Their scientific name is *porcine*, which is where the word *pork* originates. North Dakota has about 150,000 head of swine.

Circle the correct word in each sentence to learn more about pigs.

1. A group of baby pigs born to a sow at one time is called a (liter or litter).
2. Pigs are usually grouped in (pens or pins) in a barn.
3. Pigs need to be kept cool when it's hot because they have no (sweat or swet) glands.
4. Rather than being a ruminant like sheep and goats, pigs are more like humans with one (stomach or stomick).
5. Baby pigs are usually given (iurn or iron) when they're just a couple days old because their mother's milk doesn't provide enough of that important nutrient.
6. Piglets are usually (weened or weaned) from their mother's milk to a plant-based diet at about 4 weeks of age.
7. At 6 months, the pigs weigh about 280 pounds and are ready for (markit or market).
8. A growing pig eats about 3.5 pounds of (grane or grain) to gain 1 pound of weight.
9. Just like you may take one daily, pigs are given (vitamins or vitemens) in their feed to make sure they get all the nutrition they need.



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Bison vs. Buffalo

Though the terms are often used interchangeably, buffalo and bison are distinct animals. Old World "true" buffalo (Cape buffalo and water buffalo) are native to Africa and Asia. Bison are found in North America and Europe.

Label each photo to identify which is a buffalo, which is a bison and which is the North Dakota State University mascot, Thundar.



Mike Hanson
Photography



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NDSU

Poultry

Learn about poultry by filling in the words from this word bank: Thanksgiving, annually, pounds, corn, birds, wild, layers, predators, President, Benjamin Franklin, breed, broilers.

Poultry are domesticated 1 _____. Very few chickens, ducks and geese are raised in North Dakota. Where chickens are raised, farmers may have 2 _____ that lay eggs or 3 _____ that are raised for meat. The 4 _____ of chicken determines if it lays white or brown eggs.

Nine North Dakota farms produce about 1 million turkeys 5 _____. Barns keep 6 _____ away, help farmers control germs and diseases from getting to the birds, and allow maximum comfort for the turkeys. They eat a healthy diet of 7 _____ and soybeans with vitamins and minerals added and always have access to fresh water.

Turkey is traditionally served on 8 _____. However, each year the U.S. 9 _____ "pardons" two turkeys. The average American eats about 15 10 _____ of turkey annually.

11 _____ wanted the turkey rather than the bald eagle to be America's symbol. 12 _____ turkeys look much different than today's domesticated turkey. They can fly for short distances, while the domesticated turkey cannot fly.

4

Horses

Horses have played an important role in North Dakota history. They were first used in the area by American Indian people. Later, Euro-American settlers used horses for transportation and for providing power. Today, some horses in the state are used for herding cattle on ranches, but most are kept for recreational purposes.

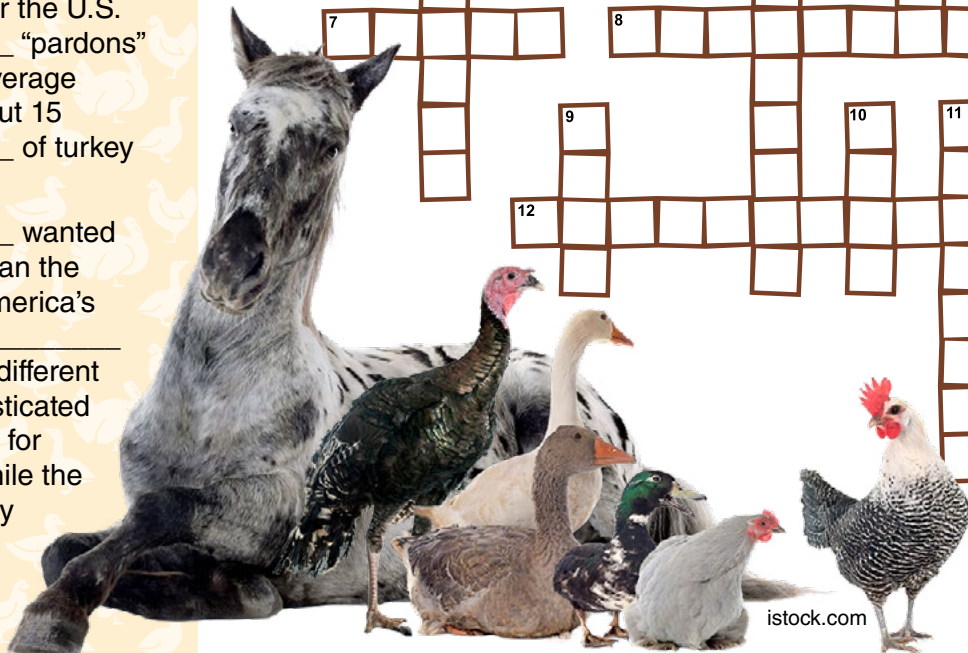
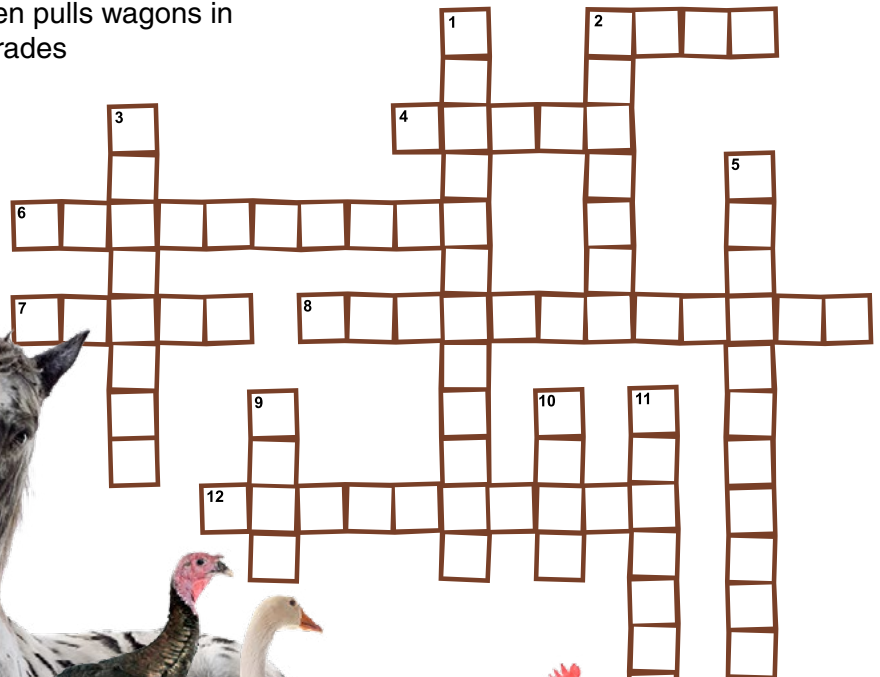
colt	Thoroughbred
filly	Clydesdale
mare	Secretariat
foal	Quarter Horse
hands	Seabiscuit
Mustang	Shetland
stallion	

Across

- A female horse
- Equal to 4 inches, horses are often measured in this unit from the ground to the top of their shoulders
- A champion Thoroughbred U.S. racehorse that was the top money-winning racehorse up to the 1940s
- A young female horse, under 4 years of age
- A horse breed developed for horse racing
- A very large breed of horse that used to pull farm equipment and now often pulls wagons in parades

Down

- An American horse breed known for sprinting that races in the Kentucky Derby
- Wild horses that often roam free in the western United States are often this breed
- A mature male horse that is older than 4 years
- The horse that still holds the record for the fastest Kentucky Derby win
- A young male horse, under 4 years of age
- A young horse, either male or female
- A pony breed that originated on islands off the Scotland coast



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Career Corner

Drs. Jacob and Beth Carlson Veterinarians, Bismarck, ND

Dakota Zoo

Husband and wife Jacob and Beth Carlson are both veterinarians, but they care for animals in different ways.

Dr. Jacob said, “I focus on food-producing animals as owner of Interstate Veterinary Clinic in Mandan. The practice provides animal health services, disease investigations and nutritional consulting. The clinic also provides veterinary services to Kist Livestock Auction. Our goal is to help livestock producers produce a safe and wholesome product that provides them a way to make a living.”

Dr. Beth is the deputy state veterinarian with the North Dakota Department of Agriculture.

“My job is different than most practicing veterinarians,” she said. “I usually work in an office. Most of what we do relates to diseases that could impact animal health, human health or the economy. When those diseases are suspected or confirmed, we often go out on farms to investigate and take appropriate actions.”

Dr. Beth said almost all animals must be inspected by a veterinarian before they come into North Dakota. That’s to make sure they’re healthy and don’t have any diseases that could spread to livestock already in our state.

“We also oversee the ownership and licensing of nontraditional livestock, which are exotic or alternative animals kept for any reason. This includes everything from farmed deer to pet monkeys.”

Jacob and Beth both grew up on farms and attended North Dakota State University before attending veterinary college at Iowa State University so have seven years of college each.

Beth enjoys her work because “We help farmers and ranchers, and improve the health and welfare of the animals and the safety of our food supply.”

Jacob said, “I enjoy getting to know my customers. I very much enjoy working with the animals and like to think I provide a good example in how I treat animals and their owners.”

The Carlsons agree that being a veterinarian takes hard work and commitment. It isn’t enough to just love animals.

“It can be difficult to get into veterinary school, and tuition is expensive,” Beth said. “Good grades are important, but also take challenging courses and gain relevant experience. Students should spend time working or shadowing in a veterinary clinic.”

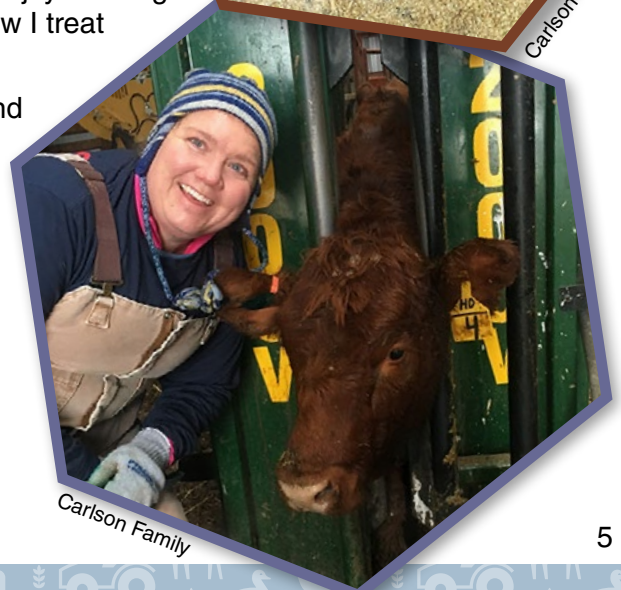
Jacob also encourages students who might want to become veterinarians to “Develop good study habits, ask lots of questions, get to know your local veterinarian and learn how to communicate with people. Above all, be kind.”



N.D. Department of Agriculture



Carlson Family

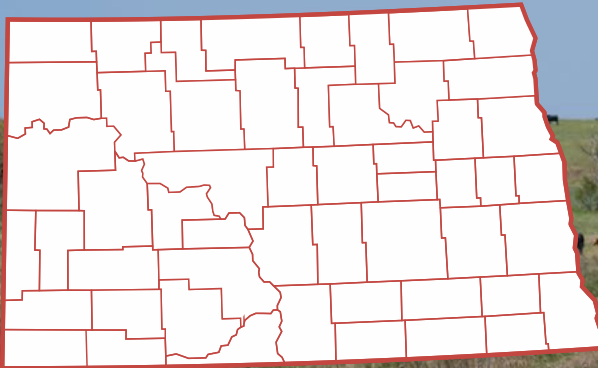


Carlson Family

Where North Dakota's Livestock are Raised

Write the letter for the species in the North Dakota county on the map to show the leading counties that raise each.

S = Sheep – Bowman and Kidder **B** = Bison – Billings and McKenzie **H** = Horses – Burleigh and Dunn
P = Pigs – Ramsey and Towner **T** = Turkeys – Richland and LaMoure



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Livestock History

Use the bold letters from the word bank to insert the words that complete the sentences about livestock in history.

A – Dakota Territory
B – Bobcat
C – Mesopotamia
D – milk
E – Christopher Columbus
F – manure
G – North America
H – billy
I – Theodore Roosevelt
J – Denmark
K – temperature
L – innovative
M – Yellowstone National Park



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1. Male goats are sometimes called goats, named after the U.S. Navy mascot.
2. Navy ships often carried live goats to provide fresh and meat.
3. It is believed that had eight pigs traveling with him to the New World.
4. By the mid-1900s, farmers realized the value in raising pigs indoors to keep them safe and healthy, keep them at a comfortable , and monitor their feed and water.
5. In 1956, a western Minnesota turkey farmer, Eddie Velo, asked brothers Cyril and Louis Keller to develop a machine that would quickly clear from the second floor of his turkey barn.
6. In 1958, Melroe Manufacturing of Gwinner, ND, bought the rights to this three-wheeled front-end loader built by the Keller brothers.
7. That machine is what led to Melroe skid-steer loaders that are now used around the world for many purposes.
8. Bison made their way to America by crossing the ancient land bridge that once connected Asia with 400,000 years ago.
9. is the only place in the U.S. where bison have continuously lived since prehistoric times.
10. In 1905, President helped form the American Bison Society to save the disappearing bison.
11. Before he was president, he traveled to in 1883 and lived in the west for several years.
12. The first sheep that had wool long enough for spinning were in ancient .
13. The oldest known European wool textile was preserved in a bog in .



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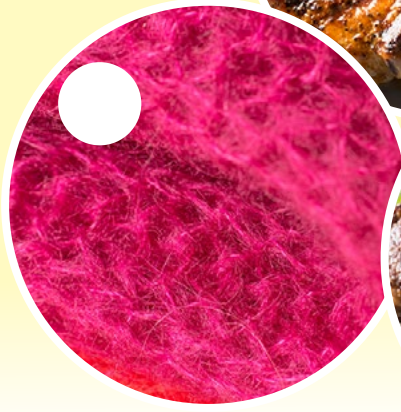


Processing, Distribution and Consumption

Livestock Co-products

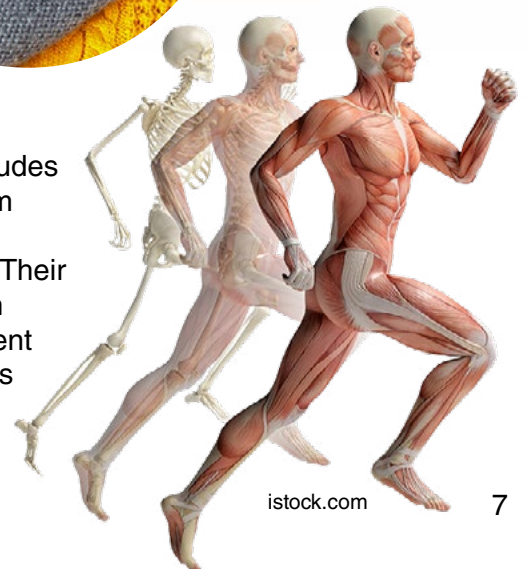
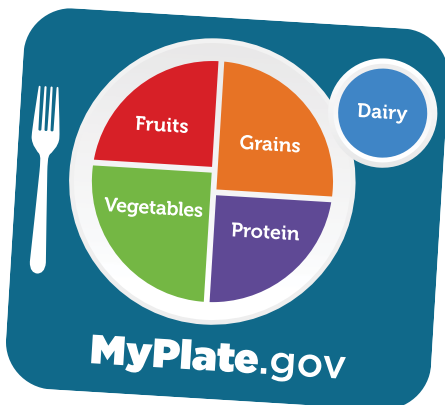
We use or eat products from livestock every day. Match the products to the animal it comes from by writing the letter in the white circle on the image. Each letter will be used more than once.

- A Sheep** – slippers, hand lotion, violin strings, feta cheese, lamb chops, wool sweaters
- B Goats** – cashmere blanket, mohair sweater
- C Pigs** – bacon, pork chops, art brushes
- D Poultry** (chickens and turkeys) – pillow stuffing, decorative feathers



MyPlate

Circle the section of MyPlate that includes meat from any of these and other farm animals. These foods are the building blocks for bones, muscles and blood. Their B vitamins help build tissue and aid in forming red blood cells. Iron can prevent anemia. Magnesium helps build bones and supports muscle function. Zinc can support your immune system.



Livestock



North Dakota
Agriculture in the Classroom

The North Dakota Ag Mag is a project of the North Dakota Agriculture in the Classroom Council, which is organized through the North Dakota Department of Agriculture.

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