

# Livestock

## Teachers Guide

This issue of the North Dakota Ag Mag focuses on the state's livestock. However, this Livestock Ag Mag doesn't include beef cattle and dairy cattle because those animals have their own issues of the North Dakota Ag Mag. (See [www.ndda.nd.gov/aitc](http://www.ndda.nd.gov/aitc) for all Ag Mag issues and additional Ag in the Classroom resources.) However, since North Dakota producers raise such a wide variety of livestock, others are included in this Ag Mag.

The Ag Mag's information and activities are geared primarily toward the state's third, fourth and fifth graders. The Ag Mag is distributed three times per school year. Subscriptions are free, but if you're not on the mailing list or if you know someone who wants to be added, contact the North Dakota Department of Agriculture at 1-800-242-7535 or [ndda@nd.gov](mailto:ndda@nd.gov).

Past Ag Mags and other Agriculture in the Classroom resources are at [www.ndda.nd.gov/aitc](http://www.ndda.nd.gov/aitc). This magazine is one of the North Dakota Agriculture in the Classroom Council activities that helps you and other K-12 teachers integrate information and activities about North Dakota agriculture across your curriculum in science, math, language arts, social studies and other classes. It's a supplemental resource rather than a separate program.

### Answers to Sheep

- 784,000 North Dakotans – 63,000 sheep = 721,000 more people than sheep
- 8 pounds of wool per sheep X 16 sheep = 128 pounds of wool
- 80 pounds of wool X \$.95 per pound = \$76
- 200 yards per pound X 5 pounds = 1,000 yards of yarn
- 90 pounds X .5 = 45 pounds of meat
- .5 gallon per day X 7 days per week = 3.5 gallons per week
- 6 pounds milk per pound of cheese X 5 pounds = 30 pounds of milk to make 5 pounds of cheese
- Total sheep 31 = 30  
Meat 13 = 10  
Milk 8 = 10  
Wool 6 = 10  
Pets 4 = 0

### Answers to Farm Animal Families



**Bison**

Bull

Cow

Calf



**Chicken**

Rooster

Hen

Chick

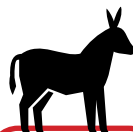


**Sheep**

Ram

Ewe

Lamb



**Donkey**

Jack

Jenny

Foal



**Turkey**

Tom

Hen

Poult

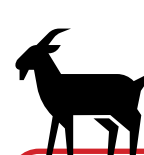


**Pig**

Boar

Sow

Piglet



**Goat**

Buck

Doe

Kid



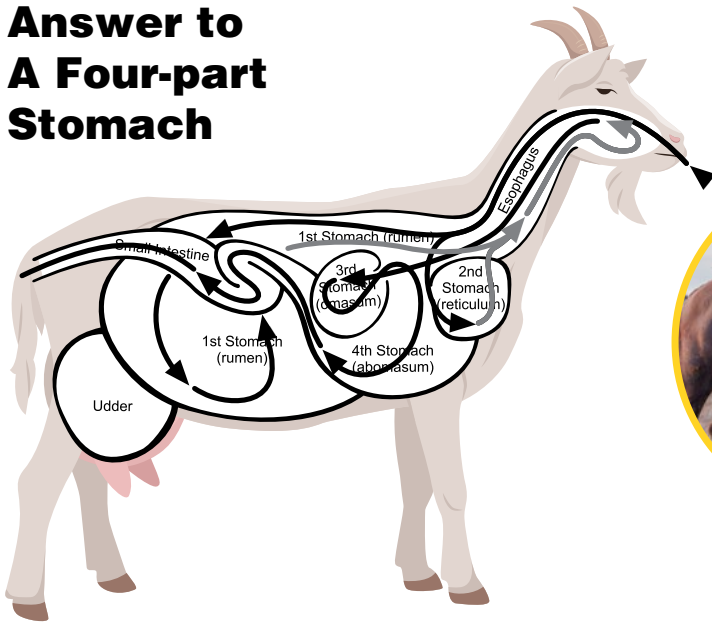
**Horse**

Stallion

Mare

Foal

## Answer to A Four-part Stomach



## Answers to Bison vs. Buffalo



## Answers to Pigs

1. A group of baby pigs born to a sow at one time is called a (litter 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.

## Answers to Poultry

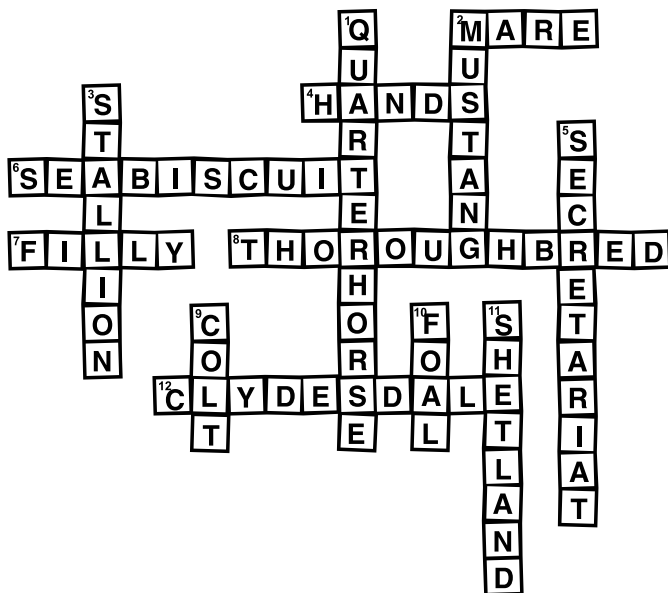
Poultry are domesticated 1. **birds**. Very few chickens, ducks and geese are raised commercially in North Dakota. Where chickens are raised, farmers may have 2. **layers** that lay eggs or 3. **broilers** that are raised for meat. The 4. **breed** of chicken determines if it lays white or brown eggs.

Nine North Dakota farms produce about 1 million turkeys 5. **annually**. Barns keep 6. **predators** 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. **corn** and soybeans with vitamins and minerals added and always have access to fresh water.

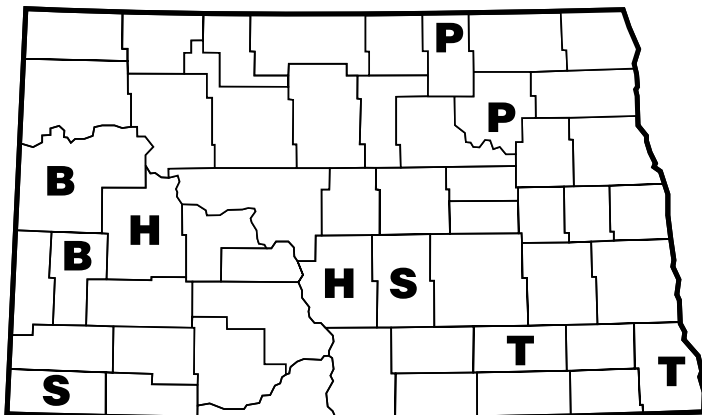
Turkey is traditionally served on 8. **Thanksgiving**. However, each year the U.S. 9. **President** "pardons" two turkeys. The average American eats about 10. **pounds** of turkey annually.

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

## Answers to Horses



## Answers to Where North Dakota's Livestock are Raised



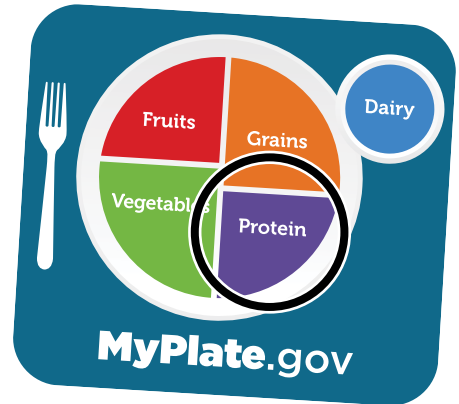
## Answers to Livestock History

1. Male goats are sometimes called **H** - billy goats, named after the U.S. Navy mascot.
2. Navy ships often carried live goats to provide fresh **D** - milk and meat.
3. It is believed that **E** - Christopher Columbus 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 **K** - temperature, 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 **F** - manure from the second floor of his turkey barn.
6. In 1958, Melroe Manufacturing of Gwinner, ND, bought the rights to this **L** - innovative three-wheeled front-end loader built by the Keller brothers.
7. That machine is what led to Melroe **B** - Bobcat 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 **G** - North America 400,000 years ago.
9. **M** - Yellowstone National Park is the only place in the U.S. where bison have continuously lived since prehistoric times.
10. In 1905, President **I** - Theodore Roosevelt helped form the American Bison Society to save the disappearing bison.
11. Before he was president, he traveled to **A** - Dakota Territory in 1883 and lived in the west for several years.
12. The first sheep that had wool long enough for spinning were in ancient **C** - Mesopotamia.
13. The oldest known European wool textile was preserved in a bog in **J** - Denmark.

## Answers to Livestock Co-products



## Answer to MyPlate



## Resources

### Books

Unbelievable Pictures and Facts About Turkeys by Olivia Greenwood

Sheep (Part of the Farm Animals Series) by Emily K. Green

All about Horses: A Kid's Guide to Breeds, Care, Riding, and More! by Kelly Milner Halls

The Book of Horses: The Ultimate Guide to Horses Around the World by Mortimer Children's Books

Horse Life: The Ultimate Guide to Caring for and Riding Horses for Kids by Robyn Smith

Why Do Pigs Like Mud?: Questions and Answers About Farm Animals by Katherine Rawson

Pigs by Robin Nelson

Goats and Sheep: Photos and Fun Facts for Kids by Isis Gaillard

Goats For Kids by Rachel Smith

Goats by Christina Leighton

Farm Animals by Animal Planet and Laaren Brown

### All Livestock

North Dakota Agriculture — fourth grade book from State Historical Society of North Dakota – [www.ndstudies.gov/gr4/north-dakota-agriculture](http://www.ndstudies.gov/gr4/north-dakota-agriculture)

North Dakota Agriculture, Ag Statistics No. 92, August 2023 — [www.nass.usda.gov/Statistics\\_by\\_State/North\\_Dakota/Publications/Annual\\_Statistical\\_Bulletin/2023/ND-Annual-Bulletin23.pdf](http://www.nass.usda.gov/Statistics_by_State/North_Dakota/Publications/Annual_Statistical_Bulletin/2023/ND-Annual-Bulletin23.pdf)

Many teacher and student resources — National Agriculture in the Classroom – <https://agclassroom.org>

Farm Pop-ups — National Agriculture in the Classroom – <https://agclassroom.org/matrix/resource/132/>

### Sheep and Goats

Ruminant on Ruminant Digestion — National 4-H activity – <https://4-h.org/clover/activities/ruminant-on-ruminant-digestion/>

Sheep See, Sheep Do — National Agriculture in the Classroom lesson plan about inherited and acquired traits – <https://agclassroom.org/matrix/lesson/404/>

The Biology of the Goat — animations and more by a biological sciences artist – <https://goatbiology.com/>

### Horses

Horses! Learn about Horses for Children KLT Wild 2:55 video – [www.youtube.com/watch?v=ZxrEgghMA\\_k](http://www.youtube.com/watch?v=ZxrEgghMA_k)

### Livestock History

Bobcat Company history – <https://res.cloudinary.com/doosan-bobcat/image/upload/v1650461477/bobcat-assets/na-bobcat-com/company/innovation/pdf/bobcat-innovation-legacy-timeline-v4.pdf>

# Resources Continued

## Pigs

Pigs & Pork: Resources from Farm to Fork — Iowa Agriculture Literacy Foundation — [www.iowaagliteracy.org/Article/Pigs-Pork-Resources-from-Farm-to-Fork](http://www.iowaagliteracy.org/Article/Pigs-Pork-Resources-from-Farm-to-Fork)

The Amazing Pig; and Producers, Pigs and Pork — Wisconsin Pork Association — <https://wppa.org/educators/classroom-activities/>

Pigs, Pork and Puzzles — Wisconsin Pork Association — [https://wppa.org/wp-content/uploads/2023/08/Pigs\\_Pork\\_Puzzles.pdf](https://wppa.org/wp-content/uploads/2023/08/Pigs_Pork_Puzzles.pdf)

Pigs on the Farm — National Agriculture in the classroom lesson plan — <https://agclassroom.org/matrix/lesson/714/>

Pigs! Pig Facts and Learning About Pigs for Kids — KLT Wild 1:57 video — [www.youtube.com/watch?v=06sDgp3wZUc&t=26s](http://www.youtube.com/watch?v=06sDgp3wZUc&t=26s)

## Bison

15 Facts About Our National Mammal: The American Bison — U.S. Department of the Interior — [www.doi.gov/blog/15-facts-about-our-national-mammal-american-bison](http://www.doi.gov/blog/15-facts-about-our-national-mammal-american-bison)

The American Buffalo: A Film by Ken Burns — PBS full film available for streaming in two parts and teacher resources related to native identity and culture, conservation and ecology, and policy and legislation — [www.pbs.org/kenburns/the-american-buffalo/](http://www.pbs.org/kenburns/the-american-buffalo/)

Bison of the West for Kids — Learn Bright 9:39 video with lesson plan — [www.youtube.com/watch?v=9tZJDcfiatM](http://www.youtube.com/watch?v=9tZJDcfiatM)

## Poultry: Chickens and Turkeys

All About Turkeys — North Dakota Department of Agriculture — [www.ndda.nd.gov/divisions/livestock-development-division/north-dakota-livestock/poultry/north-dakota-turkey/all](http://www.ndda.nd.gov/divisions/livestock-development-division/north-dakota-livestock/poultry/north-dakota-turkey/all)

Day in the Life of a Turkey Farmer — Minnesota Turkey Growers Association 10:12 video — [www.youtube.com/watch?v=lcwJ6pPUcxg](http://www.youtube.com/watch?v=lcwJ6pPUcxg)

Various printable resources — Iowa Turkey Federation — <https://iowaturkey.org/in-the-classroom>

KLT Wild — Chickens! Learn about Chickens for Kids — KLT Wild 2:37 video — [www.youtube.com/watch?v=wYKJkHcaMzE&t=8s](http://www.youtube.com/watch?v=wYKJkHcaMzE&t=8s)

## Standards and Benchmarks for this Ag Mag

### Math Standards

3.NO.NBT.2 Apply place value understanding to round whole numbers to the nearest 10 or 100.

4.NO.NBT.4 Add and subtract multi-digit whole numbers to the one millions place using strategies, including the algorithm.

4.NO.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers.

3.NO.CC.1 Read and write numbers up to 10,000 using objects or visual representations, including standard, word, and expanded forms.

### English Language Arts Standards

3.R.6 Use text features (e.g., glossary, index, sidebars) and previously learned text features (timeline, maps/legends, graphs/charts, headings, subheadings, table of contents, captions, diagrams, bold/underlined words) to read and understand a text or passage.

3.R.7 Identify examples of literary devices -- D. Alliteration

3.F.10 Determine the meaning of multiple-meaning words and phrases, choosing from a range of strategies with varying texts (synonyms, antonyms, homophones, homographs.)

3.F.12 Read accurately and automatically a variety of third-grade texts with expression, phrasing, purpose, and understanding.

3.F.11 Use new academic, content-specific, grade-level vocabulary to make connections to previously learned new words and relate new words to background knowledge.

### Social Studies Standards

G.3-5.3 Use maps, satellite images, photographs, and other representations to explain locations of places, regions, and their environmental characteristics.

H.3-5.9 Explain how individuals and groups contributed to North Dakota.



# North Dakota Agriculture in the Classroom Activities

This **Ag Mag** is just one of the North Dakota Agriculture in the Classroom Council projects. Each issue of the Ag Mag focuses on an agricultural commodity or topic and includes fun activities, bold graphics, interesting information and challenging problems. Send feedback and suggestions for future Ag Mag issues to:

Becky Koch  
NDSU Agriculture Communication  
701-866-6162  
becky.koch@ndsu.edu

Another council teacher resource is **Project Food, Land & People** (FLP). Using the national FLP curriculum, ND Ag in the Classroom provides 600-level credit workshops for teachers to instruct them in integrating hands-on lessons that promote the development of critical thinking skills so students can better understand the interrelationships among the environment, agriculture and people of the world. Teachers are encouraged to adapt their lessons to include North Dakota products and resources.

Project Food, Land & People's 55 lessons include:

- Amazing Grazing
- Cows or Condos?
- By the Way
- Seed Surprises
- Schoolground Caretakers
- Could It Be Something They Ate?
- What Piece of the Pie?
- and many more.

For information, contact:

Jill Vigesaa  
N.D. Farm Bureau Foundation  
701-799-5488  
jill.vigesaa@gmail.com

The ND Geographic Alliance conducts a two-day **Agricultural Tour for Teachers**. The tour includes farm and field visits, tours of agricultural processing plants to see what happens to products following the farm production cycle, and discussions with people involved in the global marketing of North Dakota farm products.

For information, contact:

Jeffrey Beck  
North Dakota Geographic Alliance  
701-240-9231  
jeff.beck@minot.k12.nd.us

Educators may apply for **mini-grants for up to \$500** for use in programs that promote agricultural literacy. The Agriculture in the Classroom Council, working with the ND FFA Foundation, offers these funds for agriculture-related projects, units and lessons used for school-age children. The mini-grants fund hands-on activities that develop and enrich understanding of agriculture as the source of food and/or fiber in our society. Individuals or groups such as teachers, 4-H leaders, commodity groups and others interested in teaching young people about the importance of North Dakota agriculture are welcome to apply.

Examples of programs that may be funded: farm safety programs, agricultural festivals, an elementary classroom visiting a nearby farm and ag career awareness day. Grant funds can be used for printing, curriculum, guest speakers, materials, food, supplies, etc. More ideas and an application are at [www.ndffaoundation.com/applications](http://www.ndffaoundation.com/applications).

For information, contact:

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ND FFA Foundation  
701-224-8390  
ballen@ndffa.org

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**Nikki Fideldy-Doll** – ND Dept. of Career and Technical Education  
**Jackie Buckley** – Member at Large  
**Lucas Lang** – North Dakota Farm Bureau  
**Suzanne Wolf** – North Dakota Soybean Council

Statutory Member: Superintendent of Public Instruction  
**Kirsten Baesler** (represented by Steve Snow)

## ND Department of Agriculture Contact for Ag in the Classroom Council

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[www.ndda.nd.gov/aitc](http://www.ndda.nd.gov/aitc)  
[www.facebook.com/ndaginclassroom](https://www.facebook.com/ndaginclassroom)



Agriculture Commissioner  
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