



Montana Wheat & Barley

THE HOW AND WHO



Dear Educator,

Montana is one of the world's top producers of high-quality wheat and barley, key cereal grains that ultimately feed millions of people in the U.S. and abroad. And Montana's ability to produce a huge surplus of cereal crops means there is a wealth of opportunities to work in all areas of the wheat business.

To help raise awareness about wheat and barley farming and the diverse agricultural careers available in your students' home state, the Montana Wheat and Barley Committee and the curriculum specialists at Young Minds Inspired have created this free educational program that encourages students to take a closer look at different aspects of wheat production, the impact the grain industry has on the local and international economy, and the many jobs that help the wheat business thrive.

Please share this program with other teachers in grades 4 to 6. And please visit ymiclassroom.com/feedback-mt to let us know your thoughts on this program. We look forward to receiving your comments.

Sincerely,

Dr. Dominic Kinsley
Editor in Chief
Young Minds Inspired



Questions? Contact YMI toll-free at 1-800-859-8005 or by email at feedback@ymiclassroom.com.

Target Audience

Grades 4 to 6

Program Components

Available at ymiclassroom.com/mt:

- This teacher's guide
- A reproducible activity sheet
- A standards alignment chart
- An online feedback form

Program Objectives

- Educate students about wheat and barley farming in Montana
- Raise awareness about jobs related to wheat in Montana

How to Use This Program

Copy and distribute the activity sheet to students. Use the resource links below for additional information.

Activity Sheet: Montana Wheat – The How and Who

- Begin by asking students to define **agriculture** (the art and science of growing plants and raising animals for human consumption). Then ask them to define **industry** (a group of businesses that make or sell similar products or services).
- Explain that agriculture is Montana's largest industry and plays a key role in keeping Montana's economy strong. Have students brainstorm and share jobs they associate with the agricultural industry.
- Inform students that Montana has a unique ability to produce high-quality cereal crops, including different types of wheat. Explain that wheat is a type of grass grown worldwide and that the grain harvested from wheat is a major food source for most countries across the globe. **Ask:** *What aspects of our climate do you think help Montana grow wheat more successfully than other states?* (hot summer days and cool nights, dry climate, lack of humidity)

- Ask students to brainstorm the steps between growing/harvesting wheat and getting grain and wheat-based products to consumers both inside and outside of the USA.
- Distribute the activity sheet and ask students to complete Part 1. Once they are finished, review the answers and **ask:** *What did you find most surprising about wheat's journey from field to food product?*
- Ask students to complete Part 2. After reviewing the answers as a class, discuss how the variety of agricultural jobs in the wheat industry are interconnected. For example: *How would it affect other occupations if there was a shortage of transportation workers?*

Answers: Part 1. 6, 2, 7, 8, 4, 1, 3, 5;
Part 2. 1. Plant scientists; 2. Grain elevator operators; 3. Transportation workers; 4. Marketers; 5. Millers; 6. Bakers; 7. Agricultural engineers

Discussion Extension: Ask: *Why do you think countries in Asia such as Japan and Korea rely on wheat grown in the United States? How does geography factor in?*

Extension Activities

- Have students research and write a short report about an agricultural job they would like to learn more about. Have them present their reports in small groups.
- Research the types of wheat grown in Montana and have students identify how they differ and how they are used.
- Research a local wheat farm to learn more about farming practices.

Resources

- Montana Wheat and Barley Committee – montanawbc.com
- Education – montanawbc.com/education
- Montana Agriculture & Business – montanakids.com/agriculture_and_business/crops/Wheat.htm
- US Wheat Associates – uswheat.org
- YMI site – ymiclassroom.com/mt

About the Montana Wheat and Barley Committee

The Montana Wheat and Barley Committee (MWBC) is a professional organization that promotes research, marketing, and education for the benefit of Big Sky producers living, working, and growing within the state. A main goal of the MWBC is for Montana to be known for the best wheat and barley in the world because everyone deserves the finest ingredients in their food.

Montana Wheat – The How and Who

Farmers grow and harvest the food we eat, including cereal grains like wheat and barley. Wheat is one of the world’s most important crops because it is highly nutritious and used as the main ingredient in many foods such as bread, noodles, pasta, and pastries. Montana’s geography and climate make it a good location to grow a large surplus of different types of wheat that are in demand worldwide. In Montana, there are many steps in wheat’s journey from the field to the grocery store, each involving a different type of agricultural worker.

Part 1: Trace wheat’s journey from the farm to your table.

Listed below are the steps involved in wheat production, but they are not in the right order. Number the steps from 1 to 8 to show the correct order.

- _____ Different flours such as all-purpose, whole-wheat, and durum are sold to bakeries.
- _____ Grain harvested from wheat plants is stored temporarily in local grain elevators.
- _____ Bakeries use flour to make or produce breads, noodles, pastas, cookies, and more!
- _____ Grocery stores buy wheat food products in bulk to sell to people.
- _____ Grain is sold to flour millers or shipped to overseas markets.
- _____ Wheat is grown and harvested by farmers.
- _____ The wheat grain is cleaned and separated from the chaff for long-term storage.
- _____ Flour mills grind whole grains into different types of flour.



Part 2: Discover the agricultural experts who work with wheat behind the scenes.

Now that you know the steps involved in wheat production, think about all the people that work together to move wheat crops from farm to table. Use the word bank below to match the agricultural occupation with the job description or question.

plant scientists **agricultural engineers** **transportation workers**
marketers **grain elevator operators** **bakers** **millers**

1. These biology experts develop new plant varieties to improve the amount of wheat harvested, called the yield.

2. These storage specialists keep the harvested wheat (grain) clean and dry until it is ready to be sold.

3. These shippers move the wheat to the customers who purchase it.

4. These sales experts develop ways to get consumers to buy more wheat-based products.

5. These wheat processors grind the harvested grain, turning it into different types of flour.

6. These food producers use different types of wheat flour to make bread, crackers, pastries, and more.

7. These problem-solvers design farm structures and troubleshoot soil management.

