

Name \_\_\_\_\_

Date \_\_\_\_\_

## Farming Female

Ag in 10 Minutes a Day!

“Old MacDonald Had a Farm.” When you hear that favorite childhood song, what comes to mind? What does Old MacDonald look like? An old man in a straw hat and overalls? Could Old MacDonald actually be a woman? Absolutely! The number of women farmers is growing, and today, more than 36% of farmers in the United States are female.



Image from [Women farmers can make Asia more food-secure \(adb.org\)](https://www.adb.org/en/stories/women-farmers-can-make-asia-more-food-secure)



Image from [After a century in decline, black farmers are back and on the rise \(pri.org\)](https://www.pri.org/stories/after-a-century-in-decline-black-farmers-are-back-and-on-the-rise)

### What is the History of Women in Agriculture?

Since people started living on Earth, they have needed to provide for themselves. Until about 10,000 years ago people would hunt and gather the things they needed to survive. But sometimes, that didn't work well, so they started to **domesticate** their own plants and animals.

Women were responsible for raising the children, making the clothes, keeping up the house, and preparing the food. Only men were considered farmers, since they owned the land. But the women and children were needed to keep the family farm running. Usually, the women were responsible for keeping the books, and the whole family helped in the fields with planting and harvesting. The women also did preserving, canning, and storing products for later use. During World War II, millions of men had to leave their families to go off to war, forcing the women to step in until their husbands returned home.

### Who are Some Influential Women in the History of U.S. Agriculture?

**Harriet Williams Russell Strong (1844-1926)** Harriet was a mother of four when she became a widow. She had a physical disability and knew she couldn't maintain the grain crops on the farm that her husband left behind. She decided to plant walnut trees and developed a system to **irrigate** the land while conserving water. She was an advocate for water conservation and women's rights, and became a leading grower of walnuts in the U.S.

**Mary Engle Pennington (1872-1952)** Mary was a chemist who studied bacterial growth and ways to prevent it. Too many bacteria causes food to spoil and can make

people who eat it get extremely sick. Mary revolutionized safety practices for refrigeration, storing and shipping of foods. Because of her, there are strict **standards** about food handling and storage that have most certainly saved many lives and countless tons of wasted food.

**Temple Grandin (1947- present)** Temple Grandin is a professor of Animal Science at Colorado State University. She grew up with **autism**. When she didn't speak as a young girl, her parents took her to a doctor who diagnosed her with brain damage. Doctors at that time didn't understand autism and some even recommended keeping her in a special hospital. Like many people with autism, Temple would think and learn differently than others, but she was extremely smart. When she was a teenager, Temple spent the summer at the farm of a family member. She developed a strong connection to the animals and went on to study animal sciences in college. She designed special pens and strategies to reduce stress in animals that were being contained and prepared for slaughter. She has received awards for her **advocacy** for animal rights and continues to be a spokesperson for preventing animal cruelty.

### What is the Future for Women in Agriculture?

As long as there are people who have a need for food, fiber and fuel, there will be jobs in agriculture. The number of women in the field continues to grow, but many women still face discrimination. Women tend to have smaller, more **sustainable** farms that serve the local community, while more men run large farms. This is frequently because women are unable to get credit to purchase the property and equipment they need. But women remain resourceful and continue to look for ways to support themselves despite unfair treatment. They use everything they can and create products that they can sell to supplement their income. They find many creative ways to use what they have to run a profitable business, and, in most cases, girl power wins!

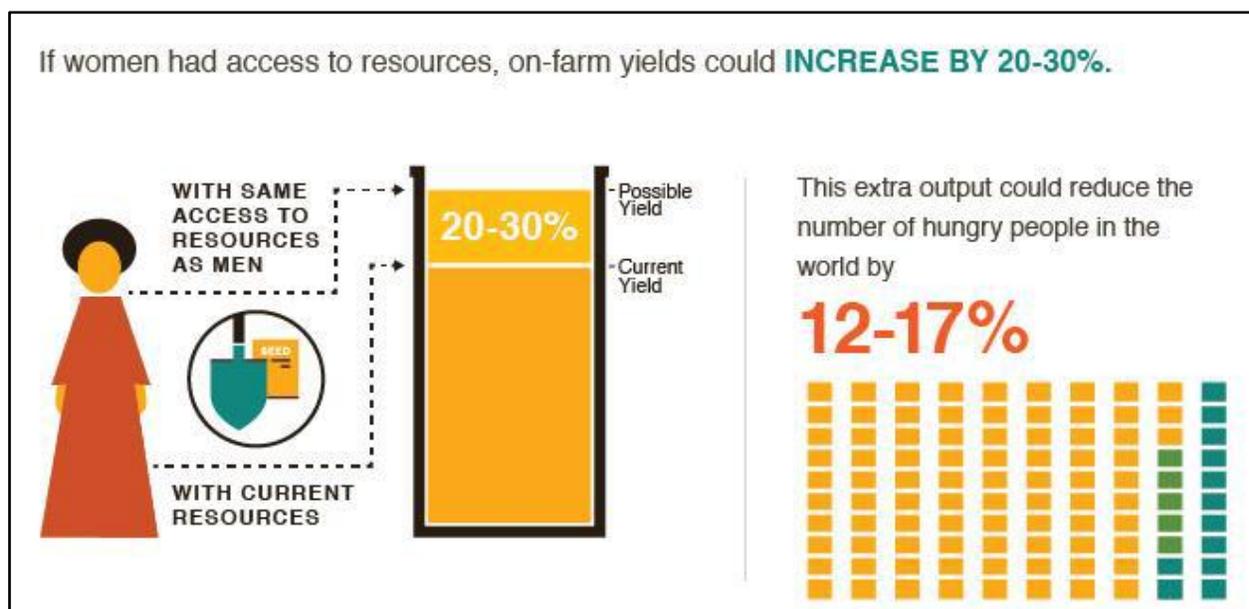


Image from [Gender - Big Facts \(cgjar.org\)](http://Gender - Big Facts (cgjar.org))

**Farming Female – Reading Passage**

Directions: Read each question and fill in the best answer.

1. What word has the closest meaning to ***domesticate***?

- A. Collect
- B. Hunt
- C. Raise
- D. Trap

2. When were many women forced to take on the responsibility of the farm?

- A. During a war
- B. When it was raining
- C. Global warming
- D. Ice Age

3. Who developed an irrigation system and water conservation program?

- A. Harriet Williams Russell Strong
- B. Mary Engle Pennington
- C. Temple Grandin
- D. Old MacDonald

4. Who overcame autism and is a college professor and advocate for animal rights?

- A. Harriet Williams Russell Strong
- B. Mary Engle Pennington
- C. Temple Grandin
- D. Old MacDonald

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5a. Why do more women run smaller farms?

- A. The work is too hard
- B. They can't drive tractors
- C. They don't like to get dirty.
- D. They face discrimination in obtaining

5b. What would result if women farmers had the same resources as men farmers?

- A. 20-30% increased yields
- B. 20-30% decreased yields
- C. 12-17% decreased yields
- D. Yields would remain the same

### Extended Response:

Use details from your own experience and information from the article in your response.

Discrimination is a big problem facing women in agriculture. Have you ever felt discriminated against? What were some strategies that you used (or could use) to feel like you could be treated more fairly?

### Female Farming Facts

- Arizona leads the US with the most female farmers, followed by New Hampshire and Massachusetts.
- Female farmers are more highly educated in their field than male farmers.
- There are about a million women farmers in the US, farming about 300 million acres.
- Women receive only about 10% of government financial aid for their farms.

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## A FUN SCIENCE EXPERIMENT – REFRIGERATION

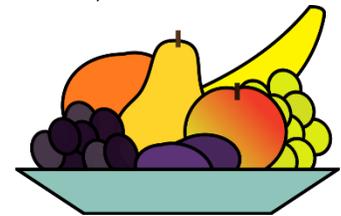
### Materials:

- several samples of fresh fruit and vegetables
- 2 plates
- paper and pencil for data collection
- camera for data collection (optional)

You just read about Mary Engle Pennington and how she helped develop standards for food preservation and refrigeration. Now try an experiment to see how refrigeration affects how long it takes for foods to spoil.

### Procedures:

1. Place one of each item on each of the 2 plates.
2. Label the plates - SCIENCE EXPERIMENT – DO NOT EAT!
3. Record your observations for day one (size color, texture, moisture).
4. Put one plate in the refrigerator and one on the counter.
5. Record observations daily for 3 – 5 days.



### Conclusions:

- What did you learn?
- Did the refrigerator slow down the process of spoiling?
- What other things could you try to keep your food fresh longer?



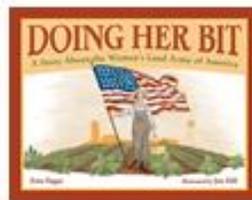
## CHECK OUT THESE BOOKS



### THE GIRL WHO THOUGHT IN PICTURES

BY JULIA FINLEY MOSCA

The story of Dr. Temple Grandin and how she overcame autism and became a groundbreaking advocate for farm animals.



### DOING HER BIT

BY JULIA ERIN HAGAR

This historical fiction story is about the Women's Land Army of America, and the roles that women took on while men were off fighting at war.



### LIKE A GIRL: FARMER

BY APRIL PETER

Faith is a girl who lives on a farm. She wakes up every morning and starts her chores.