



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

### **Cultural Lesson #6**

**Subject: Agriculture/Amish**

**Grade Level: 4 – 6**

**Irene F Sullivan**

### **Anticipatory Set:**

How is farming different from the colonial times and today?

### **New York State Standards:**

**Social Studies:** Standard #1 - History of the United States and New York

**Language Arts:** Standard #1- Language for Information and understanding

Standard #2 - Language for Critical Analysis and Evaluation

**The Arts:** Standard #3 – Responding to and Analyzing Works of Art

Standard #4 – Understanding the Cultural Contributions of the Arts

### **Objective:**

Students will learn how farming has grown through technology by creating a Venn Diagram comparing old and new farming equipment. Students will create another Venn Diagram comparing farming today with the Amish and their practices of farming. The students will use this information to complete the writing assignment.

### **Purpose:**

The purpose of this lesson is to show students how technology has changed the way people farm today, but also to show that the old ways of farming can be successfully done today as the Amish have shown us.

### **Summary:**

#### **Farm Equipment development:**

No one knows who actually invented the wooden plow, hoe, scythe, or the cradle. In the mid 1800's agricultural mechanization was growing rapid and widespread. The steel gangplow replaced the wooden plow, the reaper replaced the cradle and the cultivator replaced the hoe. In 1876 the twine grain binder was invented as well as the corn planter and the hay press. Animals powered these types of farm equipment. Oxen could pull as much as a horse but was not as fast. Horses and mules became the standard draft animals on a farm.

A horse was the main source of power on a farm, as they would pull plows and other equipment. Typically a Percheron, Belgian, Clydesdale or a Suffolk was the main choice for a farm horse. Farmers had to pick rocks out of the fields every spring. They used their horses pulling a stone boat and picked the rocks out by hand. They would use the horses to pull larger rocks out of the ground. The family also used their horse to ride into town or to church on Sundays. The method used to break up the sod was using a horse and a walking plow. The sulky plow was invented in the late 1890's which allowed the plowman to ride instead of walking behind the plow.



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

Go to the web site: <http://ag.smsu.edu/cweqpt.htm> to see a brief description and a drawing of all of the farm equipment used between 1865-1872.

In the late 1800's the self-propelled steam traction engines were developed. The farmer would use these to drive their equipment. They used coal, straw, wood, or oil to keep the boilers going. They had a crew to operate the machine; an engineer, fireman, plowman, and two or more men with horses to keep the engine supplied with fuel and water. The steamed powered rigs were great for breaking sod, but the machine could weigh up to 25 tons, so the farmer could not use the machines on broken soil ready for planting.

In the late 1880's the internal combustion engine powered by gasoline or kerosene was developed. The first successful gasoline tractor was created in 1892. Over the next 25 years the tractor had several changes made to perfect its capability. By 1925 a general-purpose row-crop tractor was built and could be hitched-up to various farm equipment, thus replacing the team of horses. After 1920 manufacturers started to build two or three-bottom plow general-purpose tractors. This is when the tractor became practical for a farmer and was the beginning of the end of animal power.

In the 1940's the combine was built and it replaced the tractor-drawn binder and threshing machine. Another improvement was the invention of the 16-foot grain auger. Up until this time grain handling equipment consisted of sacks, a scoop shovel, and a strong back. Threshing machines were run with a crew of 12-16 men to feed the machines fuel, keep the bundles going in and hauling the grain to the granary or elevator. With the tractor and flywheel, grain separators were lighter, less bulky and thought to do a better job separating the grain from the straw. With the invention of the combine it turned harvesting into a one-man operation.

The evolution of machinery helped make farming less time consuming, with less effort. In the 1880's the labor needed to produce an acre of wheat was about nine man-hours. By 1935, when rubber tired tractors were in use the labor time was reduced to about four man-hour per week. In 1980, this figure was reduced to one and one-half man-hours per acre.

Power engines also made house and barn chores easier. The small economical gasoline engines were used to pump water, grind feed, clean grain, churn butter, and do laundry. Another development was electricity on a farm. Electricity reduced human labor making farming life less a burden and more a joy. Farmers also used the automobile as a work vehicle for hauling and pulling.

### **New York State Farm Land:**

During the European settlement forests were cleared to allow subsistence crop production and later for export trade, which was mainly wheat processed as whiskey. The European pest known as the Hessian fly became a problem for the wheat growers in this area causing wheat production to become no longer profitable. Many of the farmers moved further west to clear new land. The fields left behind became pastures of



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

Kentucky bluegrass and white clover and were used to feed sheep and cattle. Eventually timothy, redtop and red clover became the base of a hay industry used for feed for the livestock during the winter.

In 1880 the demand for milk increased in the cities around the Great Lakes and the Atlantic coast. Refrigerated transport of milk into the cities was initiated to meet the demand. Technology of producing corn silage helped to make winter milk production possible to meet the demands for milk. In the 1930's adaptation of alfalfa varieties helped the dairy industry to keep up with the milk demand by allowing farmers to increase their winter storage of feed and giving them the opportunity to increase their herds.

Dairy Farming has become the largest agricultural industry in New York State, providing over 50% of New York's agricultural income. In 1995 the state had about 11,000 dairy farms, making New York the third largest dairy state in America. The region surrounding the Great Lakes of North America is known as the "dairy belt". The dairy belt consists of fruit, vegetable and cash crop production. Dairy depends on the corn for silage, grain, alfalfa, and perennial grasses for hay. Other crops on New York dairy farms include wheat, oats, barley, soybeans, forage mixtures based on red clover, and pastures and hayfields based on perennial grasses.

### **Amish:**

The Amish or the Old Order Amish originated in Switzerland about 1525. They were a division of the Mennonites or Anabaptists. The Amish began a small faith group and separated from the Swiss Mennonites during the 17<sup>th</sup> century with their founder, Jacob Amman. They were against the union of church and state and infant baptism. They baptized their members when they were about 18 years of age. Adult baptism was a crime in Europe during the 16<sup>th</sup> century and anyone found practicing adult baptism were put into sacks and thrown into European rivers.

In the 18<sup>th</sup> century William Penn granted a haven from religious persecution in America. During the 1720's many Amish settled in Lancaster County, Pennsylvania. Others settled in New York, Illinois, Indiana, Iowa, Missouri, and Ohio.

### **Amish Beliefs:**

The Amish believe in remaining separate from the rest of the world. They will not be involved in the military or warfare. There is no centralized Amish organization. The Amish avoid seeking people to convert. The *Ordnung* is an oral tradition of rules that regulates the Amish way of life. The *Ordnung* rules differ among the various church districts.

### **Practices:**

1. The members of the Amish speak a German dialect, called Pennsylvania Dutch (Deutsch).
2. Amish have one-room schools that are run by the Amish. Children are taught up to Grade 8, further education is discouraged. The Amish train their youth on how to be homemakers, farmers, carpenters, and tradesmen from an early age.



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

3. Amish do not use or own automobiles.
4. They do not have electricity, radios, TV sets or telephones.
5. Marriages outside the faith are not allowed.
6. Men usually dress in plain, dark colored suits with hook and eyes, not buttons, and broad-brimmed black hats. The men follow the Hebrew Scriptures with the regards to beards.
7. The women wear plain colored dresses with long sleeves, bonnet and apron. The women wear a white prayer covering if married; black if a death and the women are usually buried in their bridal dress, which is often blue or purple.
8. Religious services are held biweekly on Sundays in the homes of members, not in a church.
9. Funerals are conducted in the home without a eulogy and flowers. The casket is plain, without adornment.
10. The Amish do not collect Social Security/Canada Pension Plan Benefits, unemployment insurance or welfare. They maintain mutual funds for members who need help with medical costs or bills.
11. They do not take photographs or allow themselves to be photographed.
12. They practice a tradition called *rumspringa* (*running around*). The Amish teens aged 16 and older are allowed some freedom in behavior. They live at home, but they date, go out with friends, visit the outside world, go to parties, drink, and wear jeans. The idea of this tradition is to allow the youth to make certain they want to commit to the community and be baptized in the Amish faith.
13. The Amish practice “shunning” where they shun any members who break their rules.

The Amish are close-knit communities. Family values are important to them. They prepare for the world to come rather than trying to become rich or famous. They practice the old ways with a slow pace simplicity. They have found a way to survive in our high-pressure technology world by practicing the simple way of farming and using their traditional craftsmanship.

### **Materials:**

1. The book “Amish Horses”, Richard Ammon
2. Paper, crayons, markers, etc.

### **Teach:**

1. Discuss with the students the lifestyle of a farmer in the 1900’s compared to today. Have the students go to the web site: <http://ag.smsu.edu/cweqpt.htm> - This web site has several drawings and a brief description of the different farm equipment farmers used before tractors.
2. After the students have studied the website have the students brainstorm and create a Venn diagram comparing farming in the past to farming today.
3. Discuss with the students how the Amish still conduct farming without using modern technology. Read the book “Amish Horses”. The book talks about the different types of equipment the Amish use when farming.
4. Create another Venn diagram comparing the Amish to farmers today.



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

5. Instruct the students to write a journal entry where they pretend they are Amish and they are spending a day on a modern farm. Or have the students pretend they are visiting an Amish farm for a day and write their journal entry from that perspective. Have the students include in their journal the different equipment the farm is using compared to what they are use to.
6. Have the students draw a picture of the farm they visit in the journal entry. Have the drawing include one of the pieces of farm equipment they used.

### **Guided Practice:**

Assist the student in writing their journal entry by having the Venn diagram posted so the students can refer back to them for information.

### **Independent Practice:**

The students will write a journal entry and draw a picture of the farm.

### **Closure:**

Ask the students how farming equipment has improved over the years. Ask the students why the Amish still conduct the type of farming they do.

### **Web Sites:**

1. <http://ag.smsu.edu/cweqpt.htm>  
This is a web site that has a great description and drawings of the equipment used during the years 1865-1872. This is a great site to use when you are teaching the different types of farming equipment used during this time period.
2. [http://www.webfamilytree.com/farming\\_through\\_the\\_century.htm](http://www.webfamilytree.com/farming_through_the_century.htm)  
The web site gives a time line of information on how farming went from horse pulled equipment to the tractor we know today.
3. <http://horsedrawnfarmequipment.homestead.com>  
The web site has photographs of the farm equipment used horses to power the equipment.
4. <http://www.lhf.org/cgi-bin/gygsite.pl?4~0>  
This web site offers all kinds of information on the 1900-century horse powered farm. Students can click on the lists and learn about life on the farm during this time period.
5. <http://www.css.cornell.edu/forage/agronomy.html>  
The web site gives a brief description of the climate, soils, history and crop production practices common in New York State dairy farms.
6. <http://www.religioustolerance.org/amish.htm>  
The web site gives a great summary of the Amish history and culture.
7. <http://www.holycrosslivonia.org/amish/origin.htm>  
The web site also gives a great summary on the Amish history and culture.
8. <http://school.discovery.com/schrockguide/aged.html>  
This is a great web site for teachers to go to for ideas on agriculture lesson plans.



## Learning on the Great Lakes Seaway Trail

*One of America's Byways*

### **Resources:**

#### **Farming:**

1. "The Farming Industry, Jill Menkes Kushner, Olympic Marketing Corp, Sept 1994, ASIN 0531048225
2. "Changing Works: Visions of a Lost Agriculture", Douglas A. Harper, University of Chicago Press, Sept 2001, ISBN 0226317226

#### **Amish:**

1. "20 Most Asked Questions About the Amish and Mennonites", Merle Good, Phyllis Good, Good Books, Oct 1995, ISBN 1561481858
2. "America's Amish Country", Doyle Yoder, Leslie A. Kelly, America's Amish Country Publications, May 2000, ISBN 1930646003
3. "Amish Ways", Ruth Hoover Seitz, Blair Seitz, RB Books, May 1991, ISBN 1879441772

### **Children's Books:**

#### **Dairy:**

1. "Hooray for Dairy Farming", Bobbie Kalman, Crabtree Pub., Oct 1997, ISBN 0865056641 (ages 4-8)
2. "Milk: From Cow to Carton", Alili, Harpercollins Juvenile Books, Oct 1992, ISBN 0064451119, (ages 4-8)
3. "Farming", Gail Gibbons, Holiday House, April 1990, ISBN 0823407977, (ages 4-8)
4. "Hooray for Orchard Farming", Bobbie Kalman, Bt Bound, Oct 1999, ISBN 061307985x, (ages 4-8)
5. "Food and Farming (Young Geographer) Susan Reed-King, Thomson Learning, Sept. 1993, ASIN 1568470541, (ages 9-12)
6. "Farming", Jane Drake, Ann Love, Kids Can Press, Oct. 1998, ISBN 1550744518, (ages 9-12)
7. "Farming" Jane Featherstone, Raintree/Steck-Vaughn, Jan 2000, ISBN 0817253718, (ages 9-12)

#### **Amish:**

1. "Amish Horses", Richard Ammon, Atheneum, April 2001, ISBN 0689826230, ages 4-8
2. "An Amish Year", Richard Ammon, Atheneum, Feb 2000, ASIN 0689826222, ages 4-8
3. "Raising Yoder's Barn", Jane Yolen, Little Brown, Sept 2002, ISBN 0316075930, ages 4-8
4. "Amish Home" Raymond Bial, Houghton Mifflin Company, March 1995, ISBN 0395720214
5. "Amish Children", Phyllis Pellman Good, Good Books, Oct 2002, ISBN 156148380x, ages 4-8