

Merry Lea Environmental Learning Center Farmcraft: Pre-Trip Activities

Read stories about life on a farm near the turn of the 20th century (1890-1910). Some suggestions include *Century Farm: One Hundred Years on a Family Farm* and excerpts from *Little Farm in the Ozarks* and *In the Land of the Big Red Apple* (see bibliography for details).

Read and talk about farm animals, including why animals are kept on farms. Many books about farm animals are available in youth departments of area public libraries.

Read about the life cycle and uses of apples.

Apples were very important fruits to the farmers of northern Indiana at the turn of the 20th century. Cider, cider vinegar, dried apples, applesauce and apple pie, along with fresh apples in season, were all commonly produced and consumed by local farmers. During the Farmcraft program at Merry Lea, students will help make cider. Before coming, have students make some dried apples to eat together or at least eat some “store-bought” dried apples.

To dry apples:

- Wash apples.
- Have students help peel the apples using vegetable peelers. (The apples will dry more quickly and evenly with the peels removed.)
- Slice the peeled apples horizontally into 1/4” thick slices. Point out the star in the center of the apple.
- Have children cut closely around the center to remove the star and seeds.
- Thread large needles with pieces of thread about as long as your arm, double the thread and tie a knot about 3” from the end of the thread.
- Attach the first slice by going through the center hole and then back through the doubled thread. This knots the apple to the end of the thread.
- After attaching the first slice, have the children continue. Sew right through the apple pulp, slide the slice toward the last slice attached and then bring the thread back through the doubled thread as before. Be sure the students leave some space between the slices so the air can circulate.
- When the thread runs out, attach the last slice as you did the first.
- Hang the apple slices to dry. Be sure they are not in strong, direct sunlight so the slices can dry slowly. Also, be sure there is space between them so the air can move freely between all the slices. If the slices are touching, they are likely to get moldy before they dry.

Alternative method: Thread the apple slices onto thin dowels and hang the dowels level horizontally, supporting each end.

To make apple sauce:

- Wash, dry and peel apples.
- Cut the apples in quarters and remove the cores.
- Have the students cut the quarters into smaller pieces. (Butter knives work well for this.)
- Put all the pieces into a kettle or crock pot. Add about 1/4” of water. Cook the apples on a stove or in a crock pot. Continue cooking them until they are very soft.
- Remove the apples from the stove or crock pot and allow them to cool.
- Have the students run the apples through a food mill or use handheld potato mashers to sauce the apples.
- Season the apple sauce with some cinnamon and/or nutmeg. Add some sweetener if only tart apples were used to make the sauce.

Merry Lea Environmental Learning Center Farmcraft: Post-Trip Activities

Make goat milk cheese.

The goats at the Merry Lea farmstead are Nubian goats, a breed kept for their milk production. The following cheese recipes are easy to make and quite tasty. They are from *Your Goats: A Kid's Guide to Raising and Showing*, by Gail Damerow (Pownal, VT: Storey Communications, Inc., 1993).

Soft Goat Milk Cheese

Ingredients:

1 quart goat milk*
juice of 2 lemons
Optional: herbs to mix into cheese

Equipment:

Kettle (enamel or stainless, NOT aluminum)
Cooking thermometer
Cheesecloth
Colander
Bowl
Spoon

- Warm 1 quart of goat milk to 170°F.
- Stir in the lemon juice.
- Continue stirring for 15 minutes. If stringy curds don't form during this time, add a little more lemon juice.
- Pour the mixture into a cheesecloth-lined colander. Place this over a bowl and drain for at least 2 hours.
- The drained curds will provide about 1/2 cup of mild cheese. It can be used like cream cheese, cottage cheese or ricotta cheese.
- The whey (liquid drained from the cheese) makes a delicious drink combined with a little sugar or honey and chilled.

This cheese works very well for cooking. It also is quite good mixed with herbs and spread on crackers. It can be stored in a covered container in the refrigerator for up to 1 week.

Hard Goat Milk Cheese

Ingredients:

4 quarts (1 gallon) goat milk*
1/2 cup lemon juice
1/2 teaspoon salt
Optional: herbs to mix into cheese

Equipment:

Kettle (enamel or stainless, NOT aluminum)
Cooking thermometer
Cheesecloth
Colander or strainer
Bowl
Spoon
Cheese mold*

- Warm 4 quarts of goat milk to 185°F for 5 minutes.
- Very gradually stir in 1/2 cup lemon juice.
- If curds and whey don't form within 15 minutes, add a little more lemon juice.
- Drain the whey. Stir in 1/2 teaspoon salt.
- Press the curds into a cheese mold. Set the mold into the colander or strainer and let it drain until the dripping stops in about 2 hours.

This will make about 1-1/2 pounds of mild-tasting hard cheese. This cheese is good grated onto stew, soup or pasta, or sliced for sandwiches. Wrapped in plastic wrap it can be stored in the refrigerator for up to 2 weeks.

To make a simple cheese mold, carefully drill small holes into the sides and bottom of a one-pint plastic freezer container.

*Pasteurized goat milk is available in the dairy department at food co-ops and many larger grocery stores.

Contact a local milk or fiber goat farmer. Many of them provide programs about their animals and the products they make from their goats.

Make butter.

Many Indiana farmers at the turn of the 20th century made butter for a “cash-crop”. In other words, most of the butter made was sold or traded to stores in nearby towns.

Butter

Supplies:

- 1 pint heavy whipping cream
- Salt (optional)
- Clear quart-sized container with tight fitting lid
- 2 or 3 clean marbles
- Wooden spoon, rice paddle or butter paddle (to retrieve & clean butter)
- Bowl (to hold the butter while it is being cleaned)
- Pitcher of *very cold* water (to wash the butter)
- Bucket or sink (to dispose of rinse water)

- Plate (to serve butter)
- Pour the cream into the container and add the clean marbles. Put the lid on and be sure it is closed tightly.
- Gently shake the contents up and down and side to side. Alternatively, the jar can be rocked back and forth or rolled on a table or floor. *Keep the motion going steadily – if it is stopped, the butter will not separate.* Continue agitating until the butter forms. There will be a change in sound when the butter forms; the “sloshing” sound will become more distinct. At this point you will see a milky liquid (buttermilk) with globs of pale yellow butter floating in it.
- Once the butter has formed, stop churning. Open the jar and put the globs of floating butter into a bowl. The butter needs to be washed now to remove all the remaining buttermilk clinging to it. (Otherwise the butter will spoil.) Take the large flat wooden spoon, rice paddle or butter paddle and press the butter against the sides of the bowl to remove the buttermilk. You should see milky liquid ooze from the butter as you press it. Pour off the buttermilk as it collects and continue pressing. Pour some very cold water (so it doesn't melt the butter) onto the butter and continue pressing the butter in the water. This presses out the buttermilk and replaces it with water. The water will get cloudy from the buttermilk. Pour off the water and add fresh water. Continue this process at least two or three times. If you're going to be saving the butter very long, keep washing the butter until the water stays clear after pressing. (Buttermilk that remains in butter will cause it to sour.)
- Spread the butter on crackers and enjoy it! (Mix a small amount of salt into the butter, if you wish. Salt is not naturally present in butter and used to be added as a preservative.)

Additional butter making notes:

- ◆ Butter making is very temperature dependent. On cold days, butter takes longer to churn and the butter will be stiffer. On warm days the butter will be very soft. Churning works best when the cream and churn are both at the same temperature, around a cool room temperature.
- ◆ It can take 30 minutes or more for butter to form. While making the butter...
 - Have the students take turns shaking the jar. While shaking it have everyone chant or sing:
Come, butter, come.
Come, butter, come.
(*Jenny's) at the garden gate, (*Substitute the name of the child shaking the butter.)
Waiting with a butter plate.
Come, butter, come.
Come, butter, come.
 - This rhyme and variations of it have been used for many years to keep the rhythm of churning.
 - Talk about where butter comes from. Talk about how churning was a fairly safe and easy chore compared to many others on a 19th century farm. Because of this, children often helped with or did the churning.
 - Talk about buttermilk. Buttermilk is the liquid remaining after butter forms. The butter holds more fat and is naturally sweet, while the buttermilk is naturally more sour. It can be used in cooking and can be quite good as a cold drink. Buttermilk is also very sticky. Because of this it was often used as a bonding agent in glues and paints. (Elmer's Glue used to have a cow head on the label because the main ingredient was buttermilk!)

Additional information, pictures and stories of butter making can be found at
<<http://waltonfeed.com/old/butter.html>>.

Read about how corn is grown and used. (See bibliography for some suggestions.)

Corn is currently a very important field crop for farmers in northern Indiana. This was also true at the turn of the 20th century, though to a lesser degree than now. During their visit to Merry Lea, students will help process corn for use as food and will also find out about non-food uses for corn (toys, etc).

Make corn husk dolls.

Supplies:

Corn husks (12 per student)

Pan of warm water

Heavy thread (buttonhole thread or embroidery floss works well)

Scissors

Optional: stuffing wool or cotton, corn silk or yarn, fabric scraps to make clothes, glue

- Soak the corn husks in warm water for about 1/2 hour.
- Tie 12 husks together tightly at the top.
- Fold the husks around to hide the string and rough ends.
- To make a head, tie a neck down a bit from the top. Stuff a little wool or cotton into the head to make it the right size if you like.
- Separate 3 husks on both sides and tie them halfway down for the arms. Trim off the excess length from the arms.
- To make the body, tie the rest of the husks just above halfway down the remaining length.
- Make legs by gathering 3 husks to each side and tying them just above the ends. Trim the ends even.
- Glue on corn silk or yarn to make hair. Use the fabric scraps to make clothing (scarves, shawls, skirts, jackets, pants, hats, etc).

Compare “then” and “now”.

Read about modern farms (see bibliography for some suggestions). If possible, visit a modern farm, have a farmer visit the class to talk about life on the farm and/or have students who live on farms talk about their lives. Have students make lists comparing similarities and differences of farm life at the turn of the 20th century and farm life at the turn of the 21st century. Alternatively, have the students make the comparisons between their lives and farm life 100 years ago.

Just a few ideas:

Then:

Most people living on farms (around here)

Walking and wagons for transportation

Horses for pulling farm equipment

Most food grown at home

Food preserved by drying, home canning, pickling

Laundry done by hand

Most animals kept just for their products (food, leather, wool, feathers, etc.)

Most toys homemade

People needed food, clothing, shelter, recreation

Now:

Most people living in cities or towns

Cars, trucks, vans, buses for transportation

Tractors for pulling farm equipment

Most food purchased at stores

Food preserved by freezing and refrigerating

Laundry done in automatic washer and dryer

Most animals kept for pets/companionship

Most toys purchased

People still need food, clothing, shelter, recreation

Merry Lea Environmental Learning Center Bibliography of Farm-Related Books

- Ancona, George and Joan Anderson. *The American Family Farm*. San Diego: Harcourt Brace Jovanovich, Pub., 1989.
This is a photo essay with accompanying text focusing on modern family farms. There are three sections, each of which focuses on a family farming in different parts of the United States. The text is written at reading level appropriate for upper elementary students.
- Bellville, Cheryl Walsh. *Farming Today Yesterday's Way*. Minneapolis: Carolrhoda Books, Inc. 1984.
Follow the seasons of a farm family that uses draft horses rather than vehicles to farm their land in Wisconsin. Black and white photos show the horses working with equipment similar to those used on Indiana farms at the turn of the 20th century.
- Bial, Raymond. *Portrait of a Farm Family*. Boston, Houghton Mifflin Co., 1995.
This book tells the story of a modern farm family in Illinois. Four generations of this family has lived and worked their farm, seeking to be as self-sufficient as possible. Photos of this family taken over ten years show many aspects of farm life. The text is written at a middle to upper elementary level, though it could be easily adjusted to read to younger students as well.
- Bial, Raymond. *Corn Belt Harvest*. Boston: Houghton Mifflin Co., 1991.
This photo essay traces the modern production of corn from fallow winter fields through late fall plowing. It also addresses modern uses of corn. It is very nicely illustrated with many photos. The text is at an upper elementary reading level.
- Emery, Carla. *The Encyclopedia of Country Living: A Old Fashioned Recipe Book*. Seattle: Sasquatch Books, 1994.
"Practical advice, invaluable information, and collected wisdom for folks and farmers...Includes how to cultivate a garden, buy land, bake bread, raise farm animals...milk a goat...build a chicken coop, catch a pig, cook on a wood stove, and much, much more." This book is a valuable resource to provide background information for a unit on farming.
- Fleming, Denise. *Barnyard Banter*. New York: Henry Holt and Co., 1994.
Search for goose while visiting all the other noisy farm animals in this beautifully illustrated book. Brilliant handmade-paper pictures portray a barnyard bursting with color, energy and sound. The simple, rhyming text is ideal for preschool through early elementary-age students while older students (especially those interested in art) will enjoy the pictures as well.
- Florian, Douglas. *A Year in the Country*. New York: Greenwillow Books, 1989.
This picture book focuses on a farm and the animals and people that live there. Each page spread is titled by a different month and shows some of the activities and events typical of that month on a farm. This is a very nice book for preschool and lower elementary students.
- Johnson, Sylvia A. *Apple Trees*. Minneapolis: Lerner Publications Co., 1983.
This middle to upper elementary level book traces the life cycle of apples from flower and leaf buds opening in the spring to pruning of trees in the winter.
- King-Smith, Dick. *All Pigs are Beautiful*. Cambridge, MA: Candlewick Press, 1993.
This elementary-level book is a lighthearted, beautifully illustrated overview of pigs.
- MacBride, Roger Lea. *Little Farm in the Ozarks*. New York: HarperCollins, 1994.
This is the second in the series of biographical books tracing the life of Rose Wilder (daughter of Laura Ingalls Wilder). Since this book is set in the late 1800's, it provides a look at some of the joys and challenges of farm life at this time.
- MacBride, Roger Lea. *In the Land of the Big Red Apple*. New York: Harper Trophy, 1995.
This is the third in the biographical series about Rose Wilder. This book continues the story of the Wilder family's life on Rocky Ridge Farm. While set in Missouri, many of the activities and situations are very similar to those that could have been experienced by farm families in northern Indiana in the late 1800's.
- Peterson, Cris. *Century Farm: One Hundred Years on a Family Farm*. Honesdale, PA: Boyds Mills Press, 1999.
This is a beautiful, short children's book comparing life on a Wisconsin family farm from the time it started in the late 1890's until 1999. Photos from the early years on the farm are juxtaposed against current photos of the author's family still living and working on the farm founded over one hundred years earlier. The clear, concise text also compares and contrasts life across the years. This is written at a middle to upper elementary reading level although it is a very appropriate length to read to lower elementary students as well.
- Sears, Roebuck and Co. *1897 Sears Roebuck Catalogue*. New York: Chelsea House Publishers, 1968.
This is an exact reprint of the 1897 edition of the Sears Roebuck catalogue. It provides a marvelous look at tools and equipment, clothing styles, kitchen utensils, groceries, stoves, musical instruments, cameras, furniture, harness and saddlery, sporting goods and many other items available for anyone to purchase in 1897.