



Types of Farms in Saskatchewan

In this lesson students will learn about the types of farms in Saskatchewan, the different products raised on each of the various types, and in some cases, the specialized equipment required.

Outcome:

RW4.2 Investigate the importance of agriculture to the economy and culture of Saskatchewan

Indicators:

RW4.2 a. Identify and locate various types of farms in Saskatchewan.

RW4.2 b. Research production practices of various types of crop and livestock farms.

RW4.2 d. Compile an inventory of Saskatchewan agricultural food and by-products.

Questions to Guide Inquiry:

1. Why are there different types of farms in Saskatchewan?
2. Why is it important for Saskatchewan to have many different types of farms?
3. Why has farming become more specialized?



Two-three
45 minute
classes

Teacher Background

Today there are many different types of farms including grain, dairy, cattle ranches, feedlots, game farms, and mixed farms. There is often an idealistic view of the family farm with pigs, chickens, cows, sheep, and some grain. Encourage your students to talk to someone who farms to investigate if that image was realistic or idealistic. Although there are some small hobby farms today, most farms are specialized and managed as a business.

Some farmers choose to have organic farms. Organic farming is an agriculture system that relies on crop rotation, green manures, compost, biological pest control, organically approved pesticide application, and mechanical cultivation to maintain soil productivity and control pests.

It is recommended you visit the following websites:

- 1. Foundations of Agriculture found in resource section of www.aitc.sk.ca. This website also contains a photo gallery of different types of crops, livestock, equipment, and farms.
- 2. www.agriculture.gov.sk.ca. This website provides information about the specific types of farms and products produced.
- 3. This website offers basic information on the topic www.thecanadianencyclopedia.com.

MATERIALS NEEDED:

- * Chart paper & some art supplies
- * Selected handouts
- * Internet

Over half of the organic grains and oilseeds producers in Canada are from Saskatchewan.



Before Activity

Form small groups. An engaging way to do this is to use Handout 15.1. Cut the pictures so the number of pieces is the same as the number of students you wish in each group (i.e. the picture of the cows is cut into four, which is the number of students you want to work on the topic of livestock farms). The pieces are distributed, one per student. The students need to find their group by completing the jigsaw of pieces. Each group then goes to the section of the room where its passage is located. The group will be looking for the handout which has their picture (i.e. looking for the handout that has the picture of the sheep on it).

During Activity

Activity One

Explain that farming in Saskatchewan has changed a great deal over time. Most of the farms in the early years were mixed farms that had few acres, few animals, and were mostly self-sustaining. Indicate that self-sustaining means the farm produced only enough for the family with maybe a little left over to sell. This way of life has changed in Saskatchewan. Although there are still mixed farms today, people farm considerably more acres and raise a lot more livestock. Today in Saskatchewan there are many different types of farms. There are mixed, grain, dairy, livestock, poultry and specialty farms.

Break your class into groups and assign each group to a different type of farm (Handouts 15.2 – 15.8). Each student reads through the hand-out the group has been assigned. The student then turns his/her handout over and draws a vertical line down the back of the sheet dividing the back side in two equal parts. The student writes down as many key facts on the left hand side as he/she can remember (possibly demonstrate the procedure). When everyone in the group is finished, students discuss the passage.

Guiding questions, similar to the following can be provided either on the board or overhead.

- 👤 What is raised on this type of farm?
- 👤 What else do we know about this type of farm?
- 👤 What were some of the statistics (numbers) used in this passage?
- 👤 What did you already know?
- 👤 What surprised you?
- 👤 Why was the photograph a good choice for the passage? What else could have been used?
- 👤 What types of farms are missing?

After the discussion, students will write add additional information on the right hand side of the handout.

If time allows you may choose to have your students spend more time researching different types of farms. Excellent information for this could be found in the Foundations for Saskatchewan Agriculture document found at www.aitc.sk.ca.

In much of the world subsistence agriculture still takes place. For example in Uganda, Africa approximately 80% of the population are classified as subsistence farmers.



Activity Two

Distribute a piece of chart paper to each group. Inform students that each group will be sharing key information about its type of farm with the other groups. Instruct students to use the chart paper to create an informational poster with at least five pieces of information on the farm type. They can use print and/or illustrations on the poster to represent the farm.

Activity Three

Members of each group present, explaining its representations to the rest of the class. After each group presents, other students will write down:

- 👤 at least three things they have heard/learned.
- 👤 at least one question they could ask the group presenting about the farm type.

Possibly collect these questions after to assess understanding.

After Activity

There will be a class discussion using the questions students wrote down. If there are questions that the 'expert' group is unable to answer, a member of that group will look for the answer on the internet. Have some sites bookmarked, such as <http://www.agriculture.gov.sk.ca/livestock>.

Bring the discussion to a conclusion by inviting students to reflect on the question, "Why is it important to have diversity (a lot of different types) in Saskatchewan farms?".

Assessment

Teacher Checklist

- ✓ Could student retrieve information from reading the passage?
- ✓ Could student add information from group discussion?
- ✓ Did student contribute meaningfully to group's discussion?
- ✓ Did student contribute meaningfully to the development of the informational poster?
- ✓ Did the informational poster capture the main ideas? (See Lesson 5 for a poster rubric which could be adapted for this lesson).
- ✓ Was the presentation to the class clear?
- ✓ Could students ask appropriate questions?
- ✓ Could students answer questions?
- ✓ Did student notes on presentations reflect understanding?





Lesson Resources

A Government of Saskatchewan website with livestock information.
www.agriculture.gov.sk.ca/livestock

An overview of farm types written for students. Numerous links include crops and farm animals. www.aitc.sk.ca/educational-resources/sask-schools

Cross Curricular Connections

Explore www.aitc.sk.ca/educational-resources/saskschools with students.

Arts Education

Students complete sketches or drawings representing their different Saskatchewan farms.



Pictures from the Farm











Mixed Farms in Saskatchewan

When agriculture first boomed in Saskatchewan, the mixed farm was the most popular type of farm. A mixed farm means that the farmers grow crops and raise livestock. In the early 1900s most farms grew a small number of crops, mostly wheat, barley, and oats. They also had small numbers of livestock, possibly a few pigs, some beef cattle, milking cows, and chickens. These animals were mostly for the farm family's own use.

The number of farms, mostly mixed farms, reached a peak in the 1936. There were 142,000 farms and the Saskatchewan farm population was well over 500,000 people. The farm population has steadily gone down in numbers since then. In 2006 there were only 44,329 occupied farms.

As time moved on and agriculture changed in Saskatchewan, so did the mixed farm. Most farmers realized they could make more money raising more of one type of grain or one type of livestock. This meant that they didn't just grow a crop for themselves anymore; they sold the majority of their products each year. As more farm machinery was invented it meant that farmers could farm more acres each year. So, farms began to grow in size too.

Mixed farms still exist in Saskatchewan. Farmers who own a mixed livestock-grain farm are kept busy all year-round.



Cute and tasty!



Hopefully the baling gets finished before snow comes!



Everyone in a farm family works on the farm



What challenges will farmers face this year?



Grain Farms in Saskatchewan

With the development of new farm machinery, growing crops became easier and more productive for farmers in Saskatchewan. They were able to sow more acres because of this machinery and the size of farms grew significantly.

Wheat, barley, and oats are some of the most popular cereal crops grown in Saskatchewan. Saskatchewan produces a very high quality wheat that is in demand in many places in the world.

Popular pulse crops are peas, chickpeas, and lentils. A pulse crop provides diversification in crop production. Canada is the world's leading lentil, pea and chickpea exporter. Growing pulse crops is good for the soil because pulse crops provide nutrients to the soil. Other crops take nutrients out of the soil; pulse crops put them in.

Canola, flax, sunflower, and mustard are oilseeds grown in Saskatchewan. Canola was developed by Saskatchewan plant breeders 30 years ago and today it is the second largest crop grown in Saskatchewan. Since the 1970s, research has developed oilseed crops and the industry has flourished in the province.

Grain Farmers are especially busy in Spring and Fall. Winter can also be busy as many farmers market and sell their grain during the cold months.



U of S Scientists constantly work to improve crop varieties



From sun up to sun down - the harvest must come in!



Tomorrow's farmers



sunflower seed harvesting



Dairy Farms in Saskatchewan

Dairies are a type of farm in Saskatchewan. Although they involve livestock and farming practices, dairies are a very specialized type of Saskatchewan farm. Just like in grain farming, technology and machinery have changed dairies dramatically since the early 1900s.

The number of Saskatchewan dairy farms has steadily declined since it reached its peak; however, the amount and value of the products have increased overtime. In 2003, the average herd size was 85 cows per farm and today the average is 148 cows. The output of each cow has increased to almost three times as much as it was a half-century before. This was caused by new and better housing, feeding, and breeding practices. Producers in Saskatchewan now sell over 210 million litres of milk a year, valued at 130 million dollars! The dairy industry adds a lot of value to the Saskatchewan economy.

About 95% of the dairy cattle in Saskatchewan are of the Holstein breed (black and white). Dairy farms produce fresh milk which is sold in stores and industrial milk which is used to make butter, cheese, cottage cheese, yogurt, ice cream, and other milk products.



Hand milking



Cows in the machine milking line

*Some dairy farmers
give their cows
waterbeds to keep
them comfortable!*



Milk!



Beef Cattle Farms in Saskatchewan

Some Saskatchewan farms specialize in raising beef cattle. Beef cattle are different from dairy cattle because they are raised for meat not for milk. Approximately 27% of all farms in Saskatchewan are beef cattle operations and Saskatchewan has 33% of the entire Canadian beef herd. Saskatchewan is the second largest beef producing province in Canada, after Alberta.

Some farmers have “cow-calf” farms. On these farms baby calves are born (usually in spring) and the female calves, called heifers, are kept on the farm. The male calves, called steers, are sold to feedlots. Feedlots are farms that raise the steers until they reach market weight and are then ready to be sold.

Beef cattle are fed a diet that includes grass, hay, and grain. Farmers take extra care to make sure the cows are fed very well before they have their babies and while the calves are nursing. There is a lot of science that goes into a beef animal’s diet and some scientists have a career researching the best food for cattle!

Cattle are ruminants which, means they have four stomachs and can safely digest grass and hay. Their food can be grown on land that is too rocky, wet, dry or hilly for crops to grow. This is important because our world population is increasing rapidly but the amount of land that can produce food crops isn’t growing!



Cows can either be pasture raised or raised in feedlots



Cows are very curious animals!



Large cattle operations still rely on horse power



Poultry Farms in Saskatchewan

There are four types of poultry farms in Saskatchewan.

1. Egg producing chickens (laying hens)
2. Broiler meat chickens
3. Turkeys
4. Ducks and Geese

The pioneers raised poultry for meat and eggs for their own family and if there was extra product they sold it locally. As time passed, poultry production became more specialized and farmers started to raise more birds to provide a larger part of farm income. Today there are different breeds of chicken; some are raised for meat and others are raised to lay eggs for people to eat.

Breeder Farm

The first step in poultry production is to have fertilized hatching eggs that will hatch into chicks. From the breeder farms the eggs are transported to the hatchery.

Hatchery

In the hatchery, the eggs are sorted on trays and placed in a special machine called an incubator. This machine keeps the eggs warm and the chickens hatch in 21 days. From the hatchery the chicks are counted, then transported to either a broiler chicken farm or an egg producing farm when the chicks are only a few hours old.





Broiler Barn

There are approximately 70 broiler chicken farms in Saskatchewan and they raise about 30 million chickens each year. Broiler chickens:

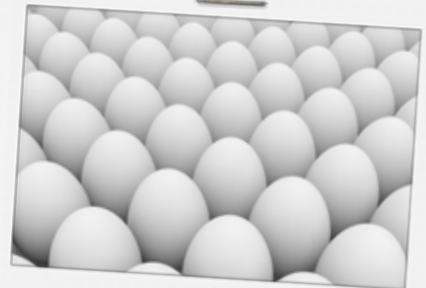
1. Are free run in spacious barns to protect them from predators, weather, and disease.
2. Are not kept in cages.
3. Are grain fed and have access to feed and clean fresh water at all times.
4. Are hormone-free.



Free run chicken

Egg Farms

Eggs that we eat come from chickens specifically raised for table egg production. They are called laying hens and are smaller than chickens grown for meat. These chickens lay about 300 eggs per year. Egg farmers in Saskatchewan produce around 24.6 million eggs each year. Star Egg sorts and grades most of the eggs produced in Saskatchewan and is located in Saskatoon.



Eggs are nutritious and delicious!



Specialty Farms in Saskatchewan

Specialty farms have gained popularity over time in Saskatchewan as many farms have had to diversify in order to survive. There are many different specialty farms in Saskatchewan. Many specialty producers focus on growing products that aren't commonly raised in Saskatchewan.

Some of Saskatchewan's specialty crops include berry farms (strawberries, saskatoons, chokecherries, and raspberries), herb farms, and Christmas tree farms. Other farms specialize in wild rice, canary seeds, bedding plants, and potatoes.

Specialized livestock farms are also popular in Saskatchewan. The products are consumed nationally (within Canada) and sold to countries around the world. Some of the specialty livestock products include bison (for meat and hides), elk (for meat and antler velvet), wild boar (meat), llama (for wool and meat), alpaca (for wool), deer (for venison and velvet), ostrich, emu and rhea (for meat, feathers, oil and leather).

Organic farming is also another specialty that is gaining popularity in Saskatchewan and around the world. Organic products include flours, flax products, consumer-ready pulses, oils, hemp food, medicinal herbs, meats, and seeds. The majority of organic farmers in Saskatchewan are grain and oilseed producers. It is expected that the organic industry will continue to grow in Saskatchewan as the demand for organic products grows around the world.



Potatoes are grown in Saskatchewan



Bison in winter



Ostriches produce a very healthy red meat!



The College of Agriculture and Bioresources has developed some excellent varieties of cherries!



Wild Rice Harvesting in Saskatchewan

Wild rice, which goes by many names including Indian rice, water rice, and water oats, is not really rice at all. It is, in fact, a coarse, annual grass, thought by many people to be a treat. Natural stands of wild rice once provided a basic food for many aboriginal peoples of the province. Cultivated varieties are now grown and sent all over the world to be enjoyed. Parts of Northern Saskatchewan provide a perfect habitat* for the growing of wild rice.

Northern Saskatchewan is unable to support the growth of other crops like wheat, oats, and barley due to severe climate and poor soil conditions, however the wild rice crop is an important Northern industry. The wild rice industry began in Saskatchewan in the 1970s and our province is the leading producer of wild rice in Canada. Income from this industry helps the economy of the North as well as the entire province.

The wild rice plant is about one to three metres tall and is topped by a large, open flower cluster. The ripe grains are shaped like slender rods and are dark brown to purple in colour.

Wild rice grows in marshes and along the shores of slow moving rivers and shallow lakes. The rice is planted by spreading seed on the surface of the wa-



Wild rice seeds



Crops are accessed by boat



You can use a machine to remove the rice or do it by hand



ter and letting it sink. The crop is often sown in the fall and the wild rice seeds start to germinate in the spring. Flowering starts in late July and harvesting usually begins at the end of August.

The traditional way to harvest the wild rice crop was by canoe. One person paddled while the other bent the stalks over the side of the canoe and, with a stick, tapped off the ripe grain into the boat. Nowadays, many types of mechanical harvesters have been developed to gather the crop. After harvesting, the grain needs to dry and be cleaned before it is ready to be shipped to market.

Natural and cultivated stands also provide food and shelter for waterfowl and other birds.

*A habitat is a place where a plant or an animal naturally lives and grows. The plains are a habitat of wheat. The jungle is a habitat for lions.

Adapted from <http://www.usask.ca/education/ccstu/pdfs/wildriceappendixa.pdf> (Retrieved March 2, 2011).



Wild rice images courtesy of Sharon Feschuk