

FUN FACES OF WISCONSIN AGRICULTURE

PORKCHOP'S PORK FAST FACTS



Production Information

Hogs are raised in various types of housing ranging from indoor housing systems to pasture. Sows can give birth (farrow) up to three times a year. From breeding, it takes 3 months, 3 weeks and 3 days (112-115 days) for the baby piglets to be born. Litter sizes will vary from 8-10 piglets. Piglets will weigh about 3-4 pounds at birth. Farrowing stalls are used to protect the baby pigs from being injured by the sow. Pigs are weaned when they are 2-4 weeks old. It takes about 5-6 months for a pig to reach market weight of 220-260 pounds.

Swine are monogastrics which means their stomach has one compartment. Because the stomach area is smaller, they require higher amounts of concentrates which are grains low in fiber and higher in digestible nutrients. Pigs will eat about 870 pounds of corn and 120 pounds of protein to reach market weight. It takes about 3.5 pounds of feed to produce 1 pound of live weight.

There are nine major swine breeds. Crossbreds are animals from two different breeds to produce an offspring that is better than either of the parents.

Sow- female hog that has farrowed a litter of pigs

Boar- male hog

Barrow – male hog that has been castrated

Gilt – female hog that has not farrowed a litter of pigs

Wisconsin Production

In December 2004, the swine inventory was about 430,000 pigs. Production was about 207 million pounds. Wisconsin ranked 16th in hog receipts at \$119 million dollars. Counties with the most hogs include Grant, Sauk, Dodge, Dane and LaFayette. Most Wisconsin farms had 1-99 head of swine. Hogs rank as the #8 commodity in Wisconsin. The Wisconsin Pork Association represents the interests of its members on social issues, public and government policies, environment, animal welfare and safety.

Career Information

Herdsmen and producers will care for the swine's dietary, housing and physical needs. Processors will harvest animals and process them for sale to restaurants and grocery stores. Meat graders will inspect the processing plants. People are needed in nutrition and feed sales to help producers with feed selection, ration balancing and supply. Veterinarians are needed to care for the treatment, vaccinations and other health needs.

Trivia

- Pigs can't sweat as they don't have sweat glands.
- A pig can run a 7 minute mile!
- A pig's squeal reaches 110-115 decibels, the same as the sound of a jet.
- There are over 100 million pigs raised in the United States.
- The average American eats 46 pounds of pork.

Other Information

There are different types of production systems for swine:

- Farrow-to-finish farms where the pigs stay on the same farm from birth to finishing at market weights of about 260 pounds.
- Farrow-nursery farms that will farrow pigs and then sell 40-60 pound feeder pigs to grow-finish farms.
- Farrow-to-wean farms that sell 10-15 pound weaned pigs to nursery-grow-finish farms.
- Wean-to-finish farms that buy weaned pigs and finish them to market weights.

No other animal produces a wider range of by-products that pigs do. One example is that there are over 40 different drugs and medical products produced including heart valves, insulin, and skin to help with burns.

FUN FACES OF WISCONSIN AGRICULTURE
MATH - PORK LESSON PLAN



STUDENT'S NAME:

Answer the questions below. Show your work.

1. For your birthday, your uncle gave you a 55 pound pig. You plan to raise it to 245 pounds and then sell it. How many pounds does it need to gain?
2. If it gains about 1.6 pounds each day, how many days will it take to reach 245 pounds? (round to the nearest whole number). How many months is that?
3. Your uncle has three sows (mother pigs) that together have 36 piglets. If they each have the same number of piglets, how many are in each litter (group of piglets)?
4. If one sow only has four piglets and the remaining two have equal numbers, how many piglets do they each have (using the piglets from number 3)?
5. One sow and her piglets use 58 bushels of corn to grow. If corn costs \$2.75 per bushel, how much will you spend on corn?
6. You sell your 250 pound pig for \$55 per one hundred pounds. How much money do you make?

ANSWER KEY

1. For your birthday, your uncle gave you a 55 pound pig. You plan to raise it to 245 pounds and then sell it. How many pounds does it need to gain?

$$245 \text{ pounds to sell} - 55 \text{ pounds now} = 190 \text{ pounds to gain}$$

2. If it gains about 1.6 pounds each day, how many days will it take to reach 245 pounds? (round to the nearest whole number). How many months is that?

$$190 \text{ pounds needed to gain} / 1.6 \text{ pounds each day} = 118.75 \text{ or } 119 \text{ days}$$
$$119 \text{ days} / 30 \text{ days each month} = 3.9 \text{ or } 4 \text{ months}$$

3. Your uncle has three sows (mother pigs) that together have 36 piglets. If they each have the same number of piglets, how many are in each litter (group of piglets)?

$$36 \text{ piglets} / 3 \text{ sows} = 12 \text{ piglets per sow}$$

4. If one sow only has four piglets and the remaining two have equal numbers, how many piglets do they each have (using the piglets from number 3)?

$$36 \text{ piglets} - 4 \text{ piglets} = 32 \text{ piglets}$$
$$32 \text{ piglets} / 2 \text{ sows} = 16 \text{ piglets per sow}$$

5. One sow and her piglets use 58 bushels of corn to grow. If corn costs \$2.75 per bushel, how much will you spend on corn?

$$58 \text{ bushels} \times \$2.75 \text{ per bushel} = \$159.50$$

6. You sell your 250 pound pig for \$55 per one hundred pounds. How much money do you make? This will give you the gross income. To calculate the net income, you would need to consider all other expenses of raising a pig (i.e. feed, housing, equipment).

$$250 \text{ pounds} / 100 \text{ pounds} = 2.5$$
$$\$55 \text{ per one hundred pounds} \times 2.5 = \$137.50 \text{ (gross income) for your pig}$$

FUN FACES OF WISCONSIN AGRICULTURE PORK INDUSTRY CAREERS



Activity Length:

Where do you work?- 30 minutes

A Day in the Life of a Pork Farmer – 30 minutes

I'm not a swine farmer...- 30 minutes

Pork Math Lesson – 30 minutes

Student Objectives:

- Students will survey classmates on the jobs that their parents do
- Students will identify the various jobs performed by a pork farmer
- Students will connect the jobs of their parents to the pork farmer jobs

Wisconsin Model Academic Standards:

English	A.4.1	A.4.2	A.4.3	A.4.4	C.4.1	C.4.2	C.4.3	D.4.1
Math	A.4.3	A.4.4	A.4.5	B.4.2	B.4.3	B.4.5	B.4.7	
Science	G.4.1							
Social Studies	A.4.7	E.4.2	E.4.4	E.4.12				

Introduction: Porkchop's Pork Fast Facts

Important Terms:

- By-product: A secondary product left from the production of a primary commodity
- Sows: mother pigs
- Farrowing barn: the barn where a sow will give birth to the piglets

Materials for this activity:

- A Day in the Life of a Pork Farmer
- Pork Careers Survey Sheet

Lesson Outline:

Where do you work?

As a class, conduct a survey of students to determine the various jobs held by their parents.

This activity may be a larger scale activity to include writing the survey or just walking to other classes and asking by a show of hands.

1. Discuss what a job or career is. If students are unfamiliar with their parent's occupation, have an assignment that they ask their parents what their job is. If a student's parent is without a job, they can discuss what job they would like to have.

2. Using the Pork Careers Survey Sheets, assign students to survey their classmates to determine the places that their parents work.
3. As a class, create a chart displaying the jobs that parents hold.
4. Discuss the various jobs that their parents have and the groups of people that they work with.

A Day in the Life of a Pork Farmer

Students will read and determine the jobs that it takes to be a pork farmer and discuss the importance of each role.

1. As a class or individually, review A Day in the Life of a Pork Farmer to identify the jobs that the pork farmer must complete.
2. Discuss the different roles that the pork farmer must have. Do they change from day to day? Is there one day where they do only one job? Which jobs aren't done each day? Why is this?

I'm not a swine farmer...

Students will compare the jobs held by their parents to the jobs done daily by the pork farmer and notice the differences and similarities.

1. Using the information collected from classmates on the Pork Career Survey Sheets, have students begin to review the data.
2. Using that list and the A Day in the Life of a Pork Farmer handout, compare the different roles.
3. Some jobs may need to be generalized to include more jobs from both lists (ex. Grocery store worker=any retail)
4. What jobs were similar? What technology and equipment do the various jobs need or use? Why is it that the pork farmer needs to do all these jobs? What jobs was a pork farmer not performing that parents did? Why is that?

Pork Math Lesson

1. Distribute Pork Math Worksheet as a classroom activity or homework assignment

Suggested Reading Materials:

- *Life on a Pig Farm*. By Judy Wolfman, Carolrhoda Books, 1998

Additional Worksheets:

- Careers Guide related to pork
- Ag Statistics Lesson Plan related to pork

Related activities:

- Invite community members that work in the pork industry to speak to the class
- Take a field trip to a hog farm or pork related industry or business
- For “Take Your Child to Work Day” or other job shadowing opportunities, encourage students to work with people working in the pork industry
- Visit Pork 4 Kids (<http://www.pork4kids.com/AskAFarmer.aspx>) and look at the Ask a Farmer section

**FUN FACES OF WISCONSIN AGRICULTURE
A DAY IN THE LIFE OF A PORK FARMER**



STUDENT'S NAME:

The following story outlines a typical day for a swine farmer. Circle or underline the different jobs that are performed throughout the day.

This morning I woke up at 3:30 to the sound of an early spring storm. Knowing that our sows (mother pigs) would soon be having their babies, I was worried and went outside to check on them. Outside I realized the storm was much worse than I thought and a piece of the roof had blown off our farrowing barn (the barn where the sows have their babies). Knowing that it was important to keep them warm and healthy, I quickly patched the roof to make sure the rain didn't damage too much of the inside. After the weather cleared, I would do a more thorough job of fixing it.

By the time the roof was fixed, it was time for me to feed the animals. The mother pigs get a different recipe than the growing babies and the older pigs, so I carefully fed the different groups of animals, making sure they got what was needed for their nutritional requirements. While I was feeding, one sow began to farrow (have her babies). I checked on her and she was doing fine. As each of the piglets were born, I watched to make sure they were healthy and gave them their needed shots to grow up strong.

After breakfast, I checked my e-mail and checked the weather to see what the rest of the day would include. Since it would be raining for most of the day, I took care of many inside responsibilities by balancing the checkbook and paying bills, ordering some more medicines and supplies from the local co-op feed store, and worked on advertisements and marketing that would appear in a pork producers' magazine. In my e-mail, I received a message from a teacher that would be bringing her class to a farm tour the next day so I could teach them about my job of raising pigs. We focus our operation on raising quality breeding and show animals, so I also receive many e-mails from potential buyers and sellers and need to evaluate the best way to market and purchase new animals for my operation.

To allow my son and daughter to be involved in our operation, we also grow our own crops. As the rain stopped, we began to ready the machinery to plant the corn and soybeans that we would feed our animals and sell in the upcoming year. Before taking machinery into the field, it is important to make sure things are running in top condition to operate the most efficiently, and save our farm some money. As a team, we repaired the roof of the farrowing barn, as things go much faster when there are more people.

After checking on the animals again, I went into town for an environmental education meeting put on by our local Extension Office. These meetings help me to be the most environmentally aware as I can be to make sure the environment is in good condition when my son and daughter take over.

Before going to bed that night, I made one final check on the pigs to see that they were doing all right, and then went to bed to make sure I was ready for whatever happened the next day.

FUN FACES OF WISCONSIN AGRICULTURE
ANSWER KEY- A DAY IN THE LIFE OF A PORK FARMER



A Day in the Life of a Pork Farmer- Answer Key

This morning I woke up at 3:30 to the sound of an early spring storm. Knowing that our sows (mother pigs) would soon be having their babies, I was worried and **went outside to check on them**. Outside I realized the storm was much worse than I thought and a piece of the roof had blown off our farrowing barn (the barn where the sows have their babies). Knowing that it was important to keep them warm and healthy, I quickly **patched the roof** to make sure the rain didn't damage too much of the inside. After the weather cleared, I would do a more thorough job of fixing it.

By the time the roof was fixed, it was time for me to **feed the animals**. The mother pigs get a different recipe than the growing babies and the older pigs, so I carefully fed the different groups of animals, making sure they got what was needed for their nutritional requirements. While I was feeding, one sow began to farrow (have her babies). I checked on her and she was doing fine. As each of the piglets were born, I watched to make sure they were healthy and **gave them their needed shots** to grow up strong.

After breakfast, I **checked my e-mail** and **checked the weather** to see what the rest of the day would include. Since it would be raining for most of the day, I took care of many inside responsibilities by **balancing the checkbook and paying bills, ordering some more supplies** from the local co-op feed store, and worked on **advertisements and marketing** that would appear in a pork producers' magazine. In my e-mail, I **received a message from a teacher** that would be bringing her class to a farm tour the next day so I could **teach them about my job** of raising pigs. We focus our operation on raising quality breeding and show animals, so I also receive many e-mails from potential buyers and sellers and need to evaluate the best way to **market and purchase new animals** for my operation.

To allow my son and daughter to be involved in our operation, we also **grow our own crops**. As the rain stopped, we began to **ready the machinery** to plant the corn and soybeans that we would feed our animals and sell in the upcoming year. Before taking machinery into the field, it is important to make sure things are running in top condition to operate the most efficiently, and save our farm some money. As a team, we repaired the roof of the farrowing barn, as things go much faster when there are more people.

After checking on the animals again, I went into town for an environmental education meeting put on by our local Extension Office. These meetings help me to be the most environmentally aware as I can be to **make sure the environment is in good condition** when my son and daughter take over.

Before going to bed that night, I made one final check on the pigs to see that they were doing all right, and then went to bed to make sure I was ready for whatever happened the next day.

Below are the phrases that indicate some of the jobs in the story and the career title they describe:

- *went outside to check on them* -Animal Care Specialist
- *patched the roof* -Repair person
- *feed the animals* -Nutritionist
- *gave them their needed shots* -Veterinarian
- *Checked my e-mail* -Business-person (office responsibilities)
- *checked the weather* -Meteorologist
- *balancing the checkbook and paying bills* -Accountant
- *ordering some more supplies* -Purchasing and ordering department
- *advertisements and marketing* -Marketing and Advertising
- *received a message from a teacher* -Public Relations
- *Teach them about my job*-Education
- *market and purchase new animals* -Salesperson
- *grow our own crops* -Agronomist
- *ready the machinery* -Mechanic
- *make sure the environment is in good condition* -Environmental Specialist

FUN FACES OF WISCONSIN AGRICULTURE

PORK PRODUCTS



Activity Length:

Classroom Product Hunt- 30 minutes

Just the Facts- 60 minutes

You said what?- 45 minutes

Pork Math Lesson – 30 minutes

Student Objectives:

- Students will identify simple classroom items that are made with pork industry by-products
- Students will write a factual paper or poster telling the history, use, or importance of one pork by-product
- Students will write a fictional paper based around a pork industry fact

Wisconsin Model Academic Standards:

English	A.4.4	B.4.1	B.4.2	B.4.3	C.4.2	C.4.3	E.4.1	F.4.1
Math	A.4.3	A.4.4	A.4.5	B.4.2	B.4.3	B.4.5	B.4.7	
Social Studies	A.4.7							

Introduction: Porkchop's Pork Fast Facts

Important Terms:

- By-product: A secondary product left from the production of a primary commodity

Materials for this activity:

- *Pork Industry Progress*- available from the Wisconsin Pork Association (wppa@wppa.org) or National Pork Producer's Council (<http://www.nppc.org/>)
- *Everything but The Oink*- available from the Wisconsin Pork Association (wppa@wppa.org)
- Animal Agriculture Alliance (www.AnimalAgAlliance.org), click on Education and then to Medical Contributions of Swine
- *Swine By-Products Chart*- available from the Animal Agriculture Alliance (www.AnimalAgAlliance.org)
- *Swine By-Products Chart*- available from the National Pork Producer's Council (<http://www.nppc.org/>)
- *Pork Puzzlers* - available from the Wisconsin Pork Association (wppa@wppa.org)
- Pork By-Products Word Search

Lesson Outline:

Classroom Product Hunt

As a class, the students will discover that many common things they use on a daily basis are by-products of pork.

1. Before the activity, mark various classroom items with masking tape x's or some other form of identification. The following items are pork by-products: glue, buttons, glass, paint brushes, rubber, cosmetics, plastics, cellophane, floor waxes, crayons, chalk, and linoleum.
2. Give students a few minutes to go around the room and write down each item they find that is marked.
3. After returning to their seats, solicit responses as to why those items were marked. Direct them to the answer that they are all by-products of pigs.
4. Using the *Pork Industry Progress* or other pork by-product listings, list different pork by-products on the board. Have the students write down the by-products and circle products that they use.
5. Complete the Pork By-Products Word Search.

Just the Facts

Students will use facts about the pork industry to write an informational paper or create a poster to educate others.

1. Students can use pork related websites, *Pork Industry Progress*, or *Pork Puzzlers* to find four facts about pork.

<http://www.TheOtherWhiteMeat.com/>
<http://www.pork4kids.com/>
<http://www.pork.org>
<http://www.uspork.org>
<http://www.nppc.org>
<http://www.porkenvironment.org>
2. Using four facts about pork, instruct students to write an informative paper or create a poster to educate others about pork.
3. Discuss how to properly cite sources and quote informative information.
4. Discuss what occasions would you use non-fictional writing? What audiences need this kind of information? How do the posters relate to advertising?

You said what?

Students will create a fictional story based on a true fact about pork.

1. Give students the choice of one of the following swine facts.
 - The city of Cincinnati is also known as “Porkopolis”.
 - President Harry Truman said, “No man should be allowed to be President who does not understand hogs.”
 - Ancient Chinese people were sometimes accompanied to the grave with their herd of hogs.
2. Using these facts, instruct students to write a fictional story about the origin of them or the background of them.
3. Why do we write fictional stories? What is the benefit of fiction? When is fiction not appropriate?

Pork Math Lesson

1. Distribute Pork Math Worksheet as a classroom activity or homework activity

Suggested Reading Materials:

- *Life on a Pig Farm*. By Judy Wolfman, Carolrhoda Books, 1998

Additional Worksheets:

- Careers Guide related to pork
- Ag Statistics Lesson Plan related to pork

Related activities:

- Have the students take an inventory of their kitchen cupboard and bathroom cabinets at home to find pork by-products

**FUN FACES OF WISCONSIN AGRICULTURE
PORK BY-PRODUCTS WORD SEARCH**



S E Y H E E V S S L T D E O B Z B R D E G J W B U
D F Y T G L U E E Y U Y V G U U W C Q E K P D A E
R X B D T Y G T G H K B W X T A N K V Z D P J Z S
O B T F C U J V N F C A R T L I C T J J Q I E C C
C U S G D I P R M D G T O I E R B A J Y T E R H I
E V C C F O R P S M W N A S C O Q N B J R Q O V T
R V W X V U Q B X Y S R Q M P A X O K F Z W L C E
K F R E B B U R A M V R G D U K N I I P M A L E M
W A T E R P R O O F I N G A G E N T S R I T E L S
X E R S R E L L I K D E E W C S N A S I V E R L O
F E R T I L I Z E R S N C H E A X L U N M R S O C
Y N L J I H S R H L I I I C H G D U P T R F Z P P
O R X I A S C F L P T N T O F S D S T I F I B H H
X I E J N E T A M S A I C K H Q J N W N S L O A G
P D W T M O B B A B C Y S V G W W I Z G S T B N O
J S I E S T L L R I S T N E M A N R O I A E V E W
S D N N O L P E D U D O O F T E P E M D L R J I W
P T M O S U O E U L S F L O O R W A X H G S E N A
N X F F K U S H I M W H L N N Z M R T L U Z E F L
H Z D E Z J L T P E M U E B T N L V N E W S R Q Z
G P O H K I R I R U G V I S K A M L B N B V V L Q
E Q W L L A O U N O E E I D C O S U C Y T G A L S
G U A C A P Z C S R N I S A Y C O E O F M X E F L
P H T V R U R W K E X D U S S C R A Y O N S U Z Z
C J R X V J H O I N U H X X W N G J W R K G O B K

ANTIFREEZE
ARTIST BRUSHES
BONECHINA
BUTTONS
CELLOPHANE
CEMENT
CHALK
COSMETICS
CRAYONS
FERTILIZER

FLOORWAX
FOOTBALLS
GLASS
GLUE
INSECTICIDES
INSULATION
INSULIN
LINOLEUM
LUBRICANTS
MATCHES

ORNAMENTS
PET FOOD
PLASTIC
PRINTING
PUTTY
ROLLERS
RUBBER
UPHOLSTERY
WATER FILTERS
WATERPROOFING AGENTS