



Volume 2, Issue 1 This issue connects you to the agricultural products, byproducts\* and coproducts\* you use.



Connect the

**DOTS**



1. Circle the products that you use or eat.
2. Looking at just the products you circled, fill in the dots on the ones that you think are made from agricultural plants or animals grown on Iowa farms.
3. Starting with your filled dot closest to the lower left corner, connect your filled dots by drawing a line up toward the top and then down toward the right hand corner.
4. Compare your result with the Connect the Dots key on the next page.



\*Wondering what these are? See page 6.



# Iowa's Top Farm Products (Products)

Unscramble Iowa's top crops (plants), animals (livestock), and animal products. They are grown to produce thousands of agricultural products that you eat or use.

gegs \_ \_ \_ \_



oncr \_ \_ \_ \_



bnsyeaos \_ \_ \_ \_ \_

efbe ctatel \_ \_ \_ \_ \_

ydira wco \_ \_ \_ \_ \_



ukestry \_ \_ \_ \_ \_

epseh \_ \_ \_ \_ \_

sgpi \_ \_ \_ \_



# Agriculture's

An agricultural product is something made from plants or animals that are grown for food and fiber. The lists on the next page include products made from lowa agricultural crops (plants) and livestock (animals).

1. Read the lists and find at least one product from each list that you eat or use. Write them in the **Agricultural Products I Eat or Use** column below.
2. Write the name of the livestock or crop that your products come from in the **Crop or Livestock Source** column.



**Agricultural Products I Eat or Use**

**Crop or Livestock Source**

1.

1.

2.

2.

3.

3.

4.

4.

5.

5.

6.

6.

7.

7.

8.

8.

9.

9.

10.

10.

# Main Products



# Agricultural byproducts and coproducts I Use

**agricultural byproduct n.**, anything that is produced in the making of a main agricultural products such as meat, milk, and eggs. The remaining bones, hide, gelatin, blood, organ meats, and feathers are byproducts. Byproducts are used to make items such as footballs, baseballs and basketballs, chewing gum, gelatin desserts, feather pillows, etc.

**agricultural coproduct n.**, anything besides agricultural main products (such as seeds for planting, livestock feed, nuts, oils) that are made with corn and soybeans, usually after the corn and soybeans have been processed and are an ingredient in a product.

Select at least one **agricultural byproduct** and **coproduct** that you use from each of the lists and write them in the ten blanks below.

## Turkeys

Crafts  
Costumes  
Feather boas  
Sporting equipment

## Sheep

Buttons  
Clothing  
Chewing gum  
Sporting goods  
Carpet and upholstery

## Pigs

Soaps  
Medicine  
Upholstery  
Pigskin clothes  
Gelatin desserts

## Laying Hens/Eggs

Pet food  
Potting soil  
Feathers in clothing, pillows  
Medicines such as flu shots  
Vitamin/mineral supplements

## Beef Cattle

Glue  
Pet food  
Leather balls  
Leather clothes  
Gelatin desserts

## Dairy Cattle

Glue  
Pet food  
Leather clothes  
Garden fertilizer  
Protein in sports drinks

## Corn

Tortillas  
Ethanol  
Cereal  
Batteries  
Corn chips

## Soybeans

Tofu  
Cereal  
Soy milk  
Peanut butter  
Soy biodiesel fuel  
Spreads – cheeses

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

## Get the scoop on poop!

Livestock manure is a very valuable byproduct. It is collected and spread on farm fields to feed the soil and help the plants grow. Have you heard someone say, "That's the smell of money"? Using manure saves the farmers the cost of buying commercial fertilizers made from petroleum products and it does a great natural job growing healthy crops. Some garden fertilizers are made of animal products. Farmers and gardeners test their soil to determine how much manure or fertilizer to add and they know the best time to spread it.

Corn and soybean plants also can benefit the soil. Farmers leave the cut plants on top of the ground after harvest to keep the soil from blowing away. They chop up the plants and turn them back under the surface of the soil to prevent the soil from washing away and to serve as compost over the winter months. Compost helps plants grow.

# Going in Circles

Most of the things we eat and use start in the soil. Iowa has some of the richest soil in the world.

Iowa's rich soil was made by the **decomposition cycle** of the plants and animals living in the tall grass prairie. Now it's up to us and the Iowa farmers to make sure the valuable soil—used to grow food and fiber—doesn't disappear.

A cycle just keeps going and going but sometimes it needs our help to go along as it should. That's when we have to peddle to manage our resources responsibly. The back bicycle wheel represents the **decomposition cycle**. It is vital to the **food production cycle** represented by the front wheel. People peddle or work in that cycle to bring you food. The steps in each cycle are labeled.

1. Draw pictures next to the words that explain each step of the two cycles.
2. Draw yourself (a stick figure is okay) peddling the bicycle to keep the decomposition and food cycles going.

**Leader** If you want music for this activity, try "Decomposition" and "Dirt Made My Lunch" from the Banana Slug String Band. Go to [bananaslugstringband.com](http://bananaslugstringband.com) and look for the cds titled "Dirt Made My Lunch" and "Singing in Our Garden."





















# Build Your Own

## Player instructions

1. Finish designing the cards below by writing a product name (from the product lists below the cards) in each box. You might want to write in pencil so you can use different product names each time you play.
2. Use seeds or other markers to cover your spaces as your leader calls out the names of the agricultural products. The winners are the first people to fill four spaces across, down, or diagonally.

















Sheep	Turkey	Corn	Dairy Cows
<p><b>Sheep</b> Milk Cheese Burger Roast Chop Steak Crayons Leather Clothes Pet food Skin and hair products</p> 	<p><b>Turkeys</b> Burger Bacon Hot dog Roast Deli sliced meat Feather pillow Feather boas Pet food</p> 	<p><b>Corn</b> Corn chips Cooking oil Sweet snacks Cereal Soda/pop Ice cream Ethanol Corn nuts Clothes Pet food</p> 	<p><b>Dairy Cows</b> Milk Cheese Ice cream Puddings, custard Yogurt Leather Pet food</p> 
			
			
			

# Bountiful Bingo Cards



## Leader instructions

1. Use the lists to randomly call out products such as "Beef Cattle – Leather" and "Soybeans – Candles." Make a light pencil mark next to the products as you call them out.
2. You may want to play the game several times. Remind students that they can also play this game at home.

<b>Beef Cattle</b> Burger Hot dogs Roast Steak Crayons Leather Pet food Deli sliced meat	<b>Soybeans</b> Milk (soymilk) Corn chips Cooking oil Sweet snacks Cereal Ice cream Soy nuts Crayons Candles Clothes Pet foods Skin and hair products Soy biodiesel fuel	<b>Laying Hens/Eggs</b> Scrambled eggs Sweet snacks Ice cream Pudding, custard Feather pillows Pet food Skin and hair products	<b>Pigs</b> Burger Bacon Hot dogs Ham Roast Chop Pet food Deli sliced meat
Beef Cattle	Soybeans	Laying hens/eggs	Pigs
			
			
			
			

1<sup>st</sup>

# Who Would You Like to Be?

2<sup>nd</sup>3<sup>rd</sup>

Look at the Food Production Cycle on page 7 and think about all the jobs it takes to bring you food. As a consumer, you have an important job. Your choices determine what is grown, harvested, processed, and sold. Each of the following groups of workers also help provide the world with food and clothing by learning and using the best practices for their professions. Read the descriptions and decide which three sound like something you would like to do. Number them 1, 2, or 3.



**Educators** teach people how to harvest, process, and market agricultural products. They work for institutions, businesses, and organizations.

**Engineers** design buildings, machinery, equipment, and other things that are needed to produce food and fiber. They work for institutions, businesses, and organizations.

**Farmers** work for themselves, a landlord, or a company to apply what they know about each of the jobs listed above to grow crops, raise livestock, and make a living for their families.

**Finance specialists** are accountants, bankers, stockbrokers, and advisors. They look at how money is used and work with people who buy and sell products.

**Foodservice professionals** include chefs, cooks, waiters and waitresses, grocery clerks, test kitchen employees, dietitians, food editors, food designers, and others who work with food at restaurants, grocery stores, magazines, hospitals, universities, organizations, businesses, and schools.

**Inspectors and consultants** make sure laws, rules, and guidelines are followed to protect the natural resources, plants, animals, and our food supply. They work for the government and for companies or organizations.

**Maintenance people** keep everything working safely and efficiently according to hundreds of rules and regulations. They may be trained to work with engines, motors, plumbing, electricity, construction, sanitation, or groundskeeping.

**Marketing specialists** look for ways to sell products. They study what people buy and design packages and advertisements, and try to connect sellers with buyers.

**Sales people** sell seeds, livestock, farm implements, equipment, machines, insurance, food, and other things related to the food cycle.

**Scientists** study soil, seeds, plants, animals, and food products to protect, conserve, feed, grow, harvest, and use them. They also develop new products and work for institutions (such as Iowa State University and Iowa Department of Agriculture and Land Stewardship) businesses, and organizations.

**Transportation workers** are coordinators, drivers or operators, and other people who are responsible for moving food to and from farms, processing plants, distribution centers, stores, and restaurants. They operate trucks, trains, ships, barges, tractors, combines, and airplanes.

**Veterinarians** learn how to keep animals healthy; they help people who own animals and also look for the causes of animal diseases.

Iowa State University is Iowa's agriculture college. You can learn more about how to prepare for the careers listed above at [www.agstudent.iastate.edu](http://www.agstudent.iastate.edu)



## Let's Eat!

We can't eat without agriculture and we can't study agriculture without eating! Before you try these fun recipes, refer to the [food safety tips](#).

How did these popular food choices come from agriculture?

Which foods are main products?

Byproducts?

Coproducts?

Compare your answers to the lists on pages 5-9.



## Pizza Snacks

### Instructions

Pretend you are a food manufacturer who makes individual pizza snacks. Students should wash their hands and stand or sit in an assembly line with their hands held out in front of them. Leaders or student volunteers will use gloves or tongs to place the following items. Pizzas can be eaten when finished.

### Ingredients (per person except as noted)

- 1 napkin
- 1 or 2 snack crackers such as Ritz™
- 1 squeeze bottle of pizza sauce per class
- ¼ slice of American cheese no cap on cheese
- 1 or 2 beef, pork, or turkey pepperoni slices

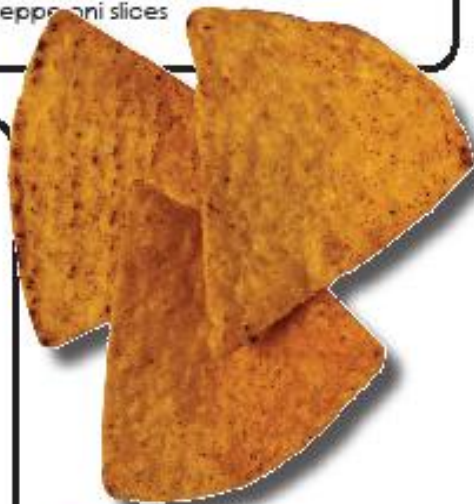
## Walking Tacos

### Instructions

Pretend you are managing a food stand that sells walking tacos. Everyone in your group is a customer who wants one. How will you determine how much to charge for the walking taco? What tasks will need to be done? Who will do them and how will you organize the space so everything is done easily and safely? What else do you need to decide before operating your food stand? Use the Ingredients and Supplies list and instruction to help you answer these questions.

### Ingredients and Supplies

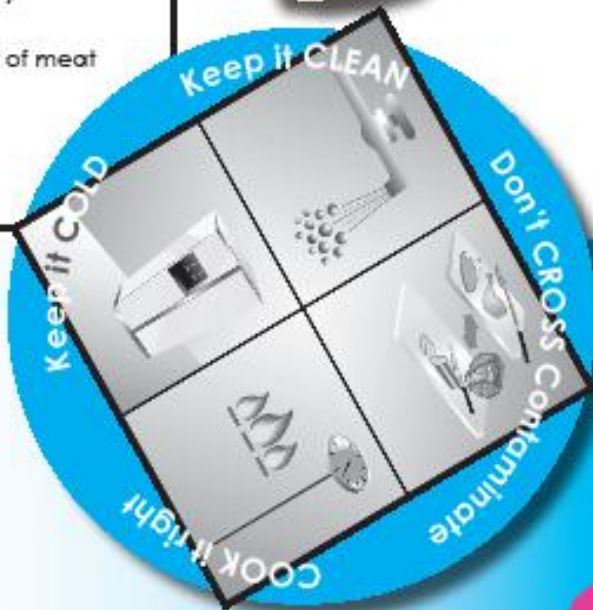
- 1 snack-sized bag of chips such as Frito's Corn Chips™ per customer
- 2 to 3 tablespoons of cooked ground beef, pork, lamb, or turkey (or scrambled eggs) per customer
- Taco seasoning packets – read the label, consider the amount of meat you have, then decide how many packets you need
- 2 to 3 tablespoons of shredded cheese per customer
- 1 or 2 jars of salsa to be used as a condiment



## Want more?

Go to [www.agaware.org](http://www.agaware.org) and follow the links to Iowa's agricultural organizations to get more recipes and activities. These Web sites also have information about food safety and nutrition:

- [www.extension.iastate.edu/foodsafety](http://www.extension.iastate.edu/foodsafety)
- [www.extension.iastate.edu/healthnutrition](http://www.extension.iastate.edu/healthnutrition)
- [www.extension.iastate.edu/Publications/pm2062.pdf](http://www.extension.iastate.edu/Publications/pm2062.pdf)
- [www.fightbac.org](http://www.fightbac.org)
- [www.mypyramid.gov/kids](http://www.mypyramid.gov/kids)



# Good Morning Agriculture!

Circle the agricultural products you find in the following story

It was hard for Grady to turn off his alarm clock, wake up, and crawl out from under the soft cotton sheets and warm wool blanket. Cool, crisp autumn air filled his second-floor bedroom in the family's wood house surrounded by rolling hills. He stepped across the carpeted floor, opened his dresser, and pulled out underwear, wool socks, jeans, and a long-sleeved T-shirt. With sleepy eyes, he wobbled into the bathroom. The smell of a special breakfast made him feel hungry. He hurried to use the soap and shampoo in the shower. He dried himself with the bath towel, got dressed, brushed his hair, and ran to the kitchen. He sat in his chair just as the bacon, eggs, toast, milk, and juice were set on the table. No cereal today. After taking his medicine, brushing his teeth, and stuffing his books and lunch into his backpack, Grady threw on his jean jacket lined with sheepskin, hugged his family, and ran out the front door just as the bus fueled with soy biodiesel, pulled to a stop. "Good Morning," said the bus driver and his friends. Grady was off to school...with the help of agriculture!



Did you find more than thirty?  
**Congratulations!**  
You can recognize the value  
of agriculture in your life...24/7.



## Thank a Farmer!

Do you know a farmer? What is his or her name and address? What crops or livestock are grown on his or her farm? What products do you like or use that may have started on that farm? Do you like to be thanked when you do something special for someone else?

So do farmers. They work hard to make sure you have high quality, healthy foods and thousands of other products to make your life better. Practice your letter writing skills while you express your gratitude to a farmer.

If you do not know any farmers, send your letters to your local ISU Extension or Farm Bureau offices for delivery to Iowa farmers.

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