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Exploring the Connection between Agriculture and You!

ialf Iowa Agriculture Literacy Foundation

ISSUE 2

Food, keeping us fueled for an active lifestyle!

Imagine if you had to eat the same thing every day. How boring! Luckily we have a wide variety of healthy and tasty food at the grocery store!

Food comes from farms in nearly every state in the U.S. Some food comes from other parts of the world too! Strawberries are from Florida. Oranges are from California. Many products like corn tortilla chips are made from corn grown here in Iowa! It takes many different types of farms to raise all that food.

Milk, cheese, and yoghurt are made from milk. Milk is produced by cows on a **dairy farm**. Dairy products provide calcium, protein, and Vitamin D.



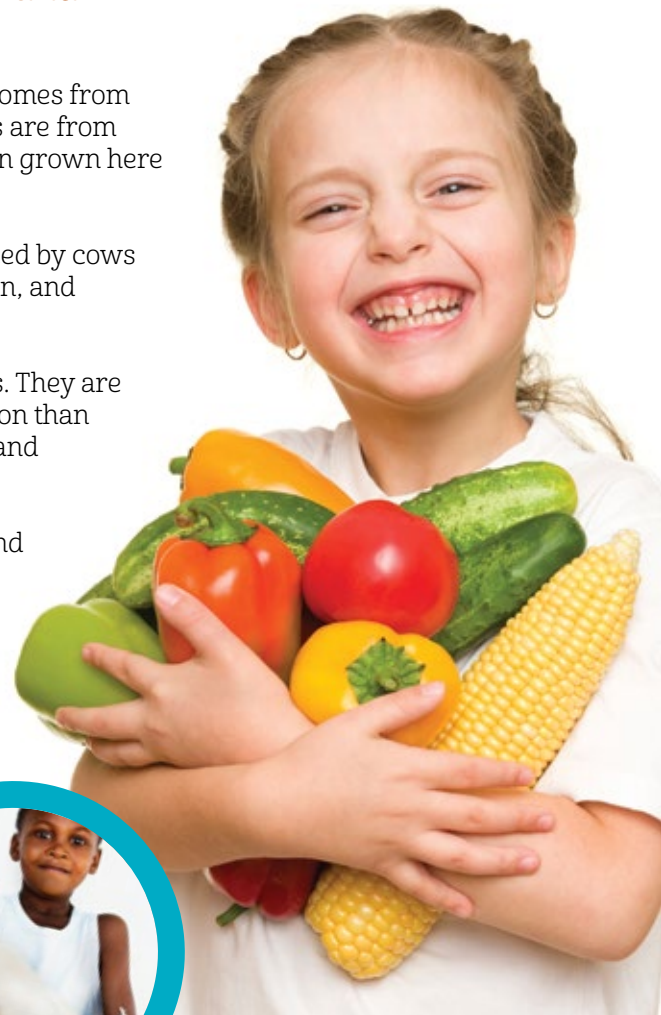
Fresh fruits and vegetables need warmer climates. They are grown on farms that have a longer growing season than Iowa farms. Fruits and vegetables provide fiber and vitamins that our bodies need.

Grain farmers grow wheat, oats, corn, barley, and rice. Grains are used to make bread and cereal. Grains provide energy and nutrients like fiber, B vitamins, and minerals.



Livestock farmers raise pigs, turkeys, cattle, and chickens. Meat from these animals is high in protein. Meat provides the amino acids our bodies need.

Think of your next trip to the grocery store as a journey to farms across the country!





Serving Size

Healthy eating means knowing what and how much to eat. A **serving** of food is the amount of food recommended for a balanced diet. Here are some comparisons to help you figure out your serving sizes:

- Three ounces of pork (and other meat) is the size of a deck of cards.
- One cup of pasta is the size of a baseball.
- One-half cup of fresh fruit is the size of a tennis ball.

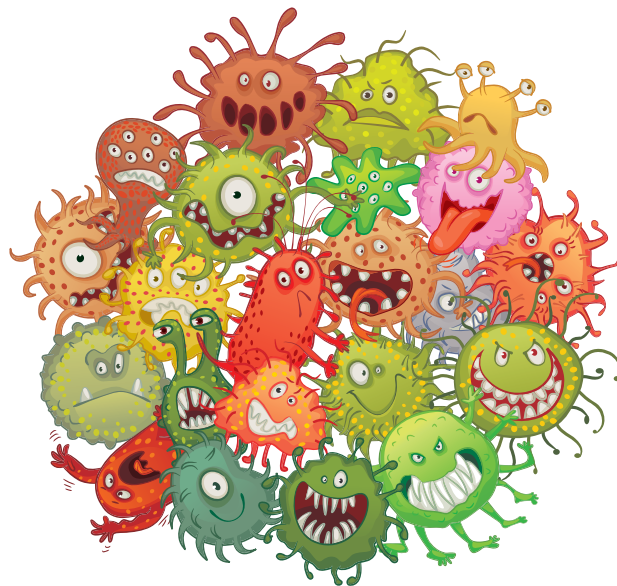
Sometimes we overestimate the amount of a serving and eat too much. To avoid eating too much, try these tips:

- Eat from a plate, not a package, so you know how much you eat.
- Use smaller dishes, so less looks like more on your plate.
- Ask for a second plate at a restaurant and share the meal with a friend.
- Take smaller portions and only go back for seconds if you are still hungry.



CAREER CORNER: FOOD PREPARATION

As a Line Cook for Gateway Market, **Dwight Lykins** knows all about good food. He cooks for more than 500 people daily. He is constantly trying to find the best and freshest produce and meat products. "I put a lot of care into what I cook," he says. Lykins encourages students interested in a career in the food industry to just "get in the kitchen and cook!"



Keep Food Safe

Sometimes food can carry bacteria that can make people sick. To prevent getting a **foodborne illness**, practice these tips:

- Wash your hands with warm soapy water to remove bacteria before cooking or eating.
- Bacteria can transfer from one surface to another. Prevent this **cross-contamination** by washing counters, cutting boards, and utensils after they touch raw food like meat and vegetables.
- When shopping, place meat in separate plastic bags.
- Cook food to kill bacteria. Pork should be cooked to an internal temperature of 145 degrees Fahrenheit. Use a meat thermometer to see if it is done!
- Always wash fruits and veggies.
- Always use clean plates and silverware to serve food.



Nutrition

Your body needs energy to keep going. We get that energy from food. But what is in an apple? What is in a steak? Why do we consider some foods to be more nutritious than others? It all comes down to what's inside.

- We get energy from **carbohydrates**, sometimes called carbs. Carbs are found in fruits, vegetables, bread and pasta, and dairy products. Your body uses carbs to create glucose. Glucose is the fuel that gives you energy!
- After you have fuel, your body needs help to stay strong and healthy. **Protein** in foods like meat, tofu, beans, and milk keep your body strong. Protein builds, maintains, and replaces tissues in your body like muscles and organs.
- **Fats** also play an important role in a healthy, balanced diet. It is important to eat healthy fats, like the ones in nuts, olive oil, and fish. Fats should be eaten in moderation.
- **Vitamins** all play different roles in helping you stay healthy. Your body can make some naturally. Others are found in the food we eat. For example, Vitamin C helps your immune system work. Your immune system prevents sickness. Oranges are high in Vitamin C. What vitamins are in your favorite foods?
- Your body can't make **minerals** - you have to eat them. Milk is a good source of calcium, a mineral that is needed to keep your bones healthy and strong.

So what is in an apple or a steak? Apples provide carbohydrates, vitamins and minerals, and even a little protein. Steak has a lot of protein, some fat, and many vitamins and minerals. Get the nutrients you need to grow and stay healthy. Be sure to eat a variety of meats, fruits, vegetables, grains, and dairy products.

DID YOU KNOW?

Kiwifruit is one of the most nutritious fruits in the world! They have more potassium than a banana, more Vitamin E than an avocado, and more Vitamin C than an orange! On top of that, they're packed with heart healthy antioxidants and fiber. So go ahead, take a bite of these fuzzy super fruits!



CAREER CORNER

Cathy Gehris has made a career out of helping people be healthy. As a dietician for Hy-Vee she helps people make good food choices. She teaches kids and adults healthy cooking and eating skills. Being a dietician allows Cathy to help people take the best care of themselves that they can.



Pork: From the Farm to you

If you like bacon, ham, sausage, lunch meat, hot dogs or ribs, then you like pork! Iowa is the top pork producing state in the country. Iowa pork is eaten in every state. It is also shipped around the world.

There are many people and businesses involved in producing, processing, and distributing pork. Here's how pork gets from the farm to your plate.

CONSUMERISM

People buy pork in restaurants or at grocery stores to cook and enjoy at home.



PRODUCTION

A pork producer is a farmer who raises pigs. Most pigs in Iowa live in clean, modern barns. This protects them from weather and **predators**. Farmers feed pigs a balanced diet matched to their age and weight. They always have fresh water too.



TRANSPORTATION

Pigs go to market when they reach 250-275 pounds. Trucks carry them from farms to meat processing plants.



PROCESSING

Pork is cut or ground during processing. Some cuts are smoked, **cured**, or **marinated** too. At the processing plant, inspectors check pigs for health and quality. The meat is inspected many times throughout the process. Food safety is a top priority.



THINK & DISCUSS - Many pigs are produced in states that also raise a lot of corn and soybeans. Why do you think that is?



Career Connections

Careers in the pork industry are diverse and abundant in Iowa. Do any of these careers interest you? What does each one do?

- VETERINARIAN
- ANIMAL NUTRITIONIST
- FARM MANAGER
- BREEDING SPECIALIST
- PORK BUYER
- FUTURES TRADER
- AG LENDER
- GENETICIST
- FOOD SCIENTIST

DISTRIBUTION

After leaving the processing plant, pork products are sold. They are transported by truck to restaurants, grocery stores, schools, and **distribution centers**.



Pork provides protein that builds strong muscles and helps our bodies grow. Pork is also a great source of iron, zinc, and B-vitamins.

Today's pork has less fat, calories, and cholesterol than pork produced 10 years ago. Farmers monitor the fat content of pigs and adjust their diet accordingly. Farmers choose leaner animals when breeding. These practices help supply consumers (like you!) with lean, tasty products.



MEET A PORK PRODUCER!

THE HOMMELS'

Laura and Dave Hommel raise pigs, corn, and soybeans on their farm in Grundy County. Their farm is a farrow to finish operation. This means they raise pigs from when they are born to when they are ready for market. Some pork farms specialize in farrowing (moms & piglets), nursery, (30 to 75 pounds) or finishing (75 to 275 pounds).

Dave's dad started raising pigs on his farm 25 years ago. Dave enjoyed helping him as a kid and knew he wanted to be a farmer too. Dave and Laura attended Iowa State University to learn business and science. They continue learn more by attending workshops, reading articles, and talking to other farmers. "We want to stay up to date on the newest research and best farming practices," said Laura.

Their three kids help out with their farming operation too. They help with chores and care for the piglets. David and Laura both grew up on farms. They are happy they can continue their families' farming traditions and raise their kids on a farm.





What's on America's Table?

USDA's MyPlate recommendations tell how much of certain foods we should eat. What do we really eat? The graphic below shows how many pounds of each food the average American eats per year.

DIGGING DEEPER

What foods are commonly grown in Iowa? Where do we get the food not typically grown on Iowa Farms?

MEATS & FISH
131 pounds

MILK
220 gallons

FATS & OILS
28 pounds

EGGS
40 pounds

FRUITS
264 pounds

VEGETABLES
281 pounds

FLOUR, CEREAL, & RICE PRODUCTS
99 pounds

CHEESE
25 pounds



THINK & DISCUSS:
How does what we eat compare to the USDA MyPlate recommendations? Should Americans eat more or less of anything?

UNDERSTANDING FOOD LABELS

The food labels let us know what is inside the package. This can be very helpful. Labels explain what ingredients are found in food and list known **allergens**. Allergens can cause an allergic reaction like hives, swelling, and sometimes problems breathing. For example, some people can be allergic to peanuts, eggs, or shellfish.

Food labels also show how much food is in the package - usually measured in weight. Food labels give nutritional information including calories, fat content, vitamins, minerals, and recommended serving size.

THINK & DISCUSS:
What does this food label tell us?

Nutrition Facts

Serving Size 2 oz (56g - about 1/7 box)
Servings Per Container about 7

Amount Per Serving	
Calories 200	Calories from Fat 15
% Daily Value*	
Total Fat 6.5g	2%
Saturated Fat 4g	0%
Trans Fat 2g	
Cholesterol 0mg	0%
Sodium 10mg	0%
Total Carbohydrate 41g	14%
Dietary Fiber 6g	24%
Sugars 2g	
Protein 7g	

Go Play!

We live very different lifestyles today than people did 40 years ago. We often ride cars and busses to school instead of walk. We spend more time watching TV, playing video games, and on the internet. We snack a lot and exercise less. We eat an average of 31% more **calories**. Only 1/3 of students get enough physical activity.

Being active is an important part of being healthy. Kids and teens should be active and moving for at least 1 hour, at least 5 days a week. Here are some simple things you can do to get active.

- Do jumping jacks, push-ups, or dance during TV commercials. Take exercise breaks during video games and movies.
- Plan fun activities with your family. Try swimming, tennis, basketball, or Frisbee.
- Help with chores at home. Doing chores for thirty minutes burns as many or more calories as walking for 30 minutes.
- Plant a garden. Digging for 30 minutes is similar to running for 30 minutes. Plus, you'll have some great food to eat as a result.
- Find a park, forest, or outside play space near you and enjoy a hike, picnic, or cook out.

Farm safety

Playing out on the farm or helping with chores is a great way to get exercise. But sometimes farms can be dangerous. Whether you live on a farm or just visit a farm, stay safe using these simple tips.

- Approach animals cautiously and don't spook or alarm them.
- Wear the appropriate clothes which can include gloves, hats, long-sleeve shirts, long pants, and shoes or boots.
- Don't play in or near grain bins. Grain can act like quicksand and make it very hard to breathe.
- Don't play with or near fertilizer, pesticides, or cleaning supplies. In large doses chemicals can be harmful.

DID YOU KNOW?

Some of the healthiest food in a grocery store is found on the perimeter. Ask your parents to focus on the outer edge of the store and buy fresh fruits and vegetables, milk and cheese, and meat first. Then look through the aisles to find canned goods, rice and pasta, and other essential items. Just be sure to shop the cookie, snack and soda aisles last!



What the World Eats

People from around the world eat many different types of food. The food people eat is often determined by what can be grown or raised near them. Different types of crops and livestock have been **domesticated** and raised around the world. Types of food are also determined by local **culture**.

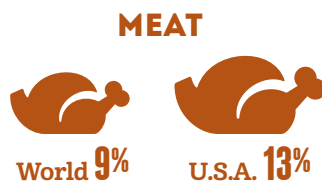
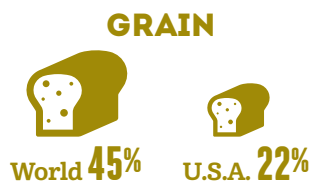
For example, Japan is an island country surrounded by ocean. People in Japan rely on fishermen and the sea to produce a lot of their food. Many of their dishes include fish and seaweed - like **sushi** for instance.

People in Italy are known for being very healthy because of the food they eat. Olives grow throughout Italy. Many Italians cook with olive oil which is considered to be good for heart health. The Italian or **Mediterranean diet** is also full of fruits, vegetables, fish and whole grains.

Many cultures around the world eat rice and beans at almost every meal. Rice is a valuable source of energy. Beans are rich in protein.

The American diet is considerably different with more fat, sugar, meat, and dairy. The average American consumes 3,641 calories everyday. 37% is from sugar and fat. Worldwide daily calorie intake is 2,870. Half of that is calories from grains.

HOW DOES THE UNITED STATES COMPARE TO THE REST OF THE WORLD?



MAKE DINNER AN ADVENTURE!

Insects (yes, insects!) are eaten in many countries as a good source of protein. More than one quarter of the world's human population eat insects. Beetles, caterpillars, ants, bees, wasps, crickets, grasshoppers, and locusts are all eaten. Many insects, like crickets, are high in protein and fat and are enjoyed in other countries. So, would you eat a grasshopper?

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