



STATS BY THE SLICE

\$36,000,000,000
IN RESTAURANTS, AMERICANS SPEND
OVER \$36 BILLION ON PIZZA EACH YEAR

2 BILLION

Frozen pizza sales exceed 2 billion dollars each year – how much do the families of your classmates spend on pizza each week?

Did you know that more pizza is consumed in the United States on Super Bowl Sunday than any other day of the year? New Year's Eve is second and Halloween is third.

AS A NATION

we eat the equivalent of **100 acres of pizza per day** or **350 slices per second!**

It is estimated that the average American eats

23 pounds (46 slices)

of pizza each year. How many pounds of pizza does your class eat per year?

OCTOBER IS
NATIONAL
PIZZA
MONTH

Americans love pizza. Every day, **13% of the U.S. population** chows down on a slice.



GET A RISE OUT OF YEAST

When warm water is added to yeast, it activates enzymes in the dough that convert starch into sugar. Carbon dioxide gas is created and the gas bubbles cause the dough to rise. The gas bubbles remain trapped in the bread and give it a light, airy texture.

Try this experiment to see yeast in action:

1. Mix a teaspoonful of sugar and a half teaspoon of yeast in a two-liter pop bottle. Add two or three inches of water and shake the mixture.
2. Stretch a balloon over the top of the bottle.

What happened? What might happen to the balloon in the next 30 minutes? Would the yeast work faster if you used hot water? Cool water? More sugar?



Crust Starts on the Farm

Pizza crust is made from wheat. Farmers plant tiny wheat kernels in the ground using a drill. Wheat looks like fresh new grass when it comes out of the soil. It grows to about 24 inches high. The farmer then harvests the wheat and hauls it in trucks or wagons to the grain elevator. From there, it is exported or sold to various industries which make feed or food. Wheat passes through quite a process to become flour for pizza dough. After the wheat is shipped to a mill, it is cleaned to remove weeds, stems and other plant material. Then rollers press the kernels to break them into pieces. Finally, the small wheat pieces are shaken onto screens to sift out the bran and germ not used in wheat flour.

Most pizza crusts are made from red spring wheat or hard red winter wheat grown in the central region of the United States. Here in Illinois, we grow soft red winter wheat. Illinois wheat has less protein than other types of wheat used to make pizza crusts. However, Illinois wheat flour can be blended with higher protein wheat flour for use in thin crust pizza.

Wheat flour is mixed with yeast, oil, sugar, salt, and water to make pizza dough. Yeast makes pizza dough rise. It is a living organism and a fungus related to mushrooms. Today, commercial yeast is grown from molasses from sugar beets and sugar cane.

Pepperoni and Sausage

Pepperoni and sausage are meats made from pigs. Many Illinois farmers raise pigs. The animals are fed a special blend of ground corn, soybeans, vitamins, and minerals. The pigs go to market in five to six months when they weigh 240-250 pounds. The meat from the pigs is called pork. It is ground up and special seasonings are added to make sausage, salami, hot dogs, bacon and pepperoni.



Peppers

There are many varieties of garden peppers, but the large fruited sweet pepper is the favorite of most Americans and a popular pizza topping. Peppers grow on small bushy plants. They are usually eaten in their immature green stage, but they are also delicious after they have fully ripened and turned red or yellow.



Tomatoes

Pizza sauce is made from tomatoes. Tomato plants take 75 to 85 days to produce ripe fruit. The seeds are usually started indoors and then transplanted outdoors after the seedlings are four to six weeks old. The plants are supported with stakes to keep them from falling to the moist ground. When the tomatoes are ripe, they are carefully packed into boxes and sent to grocery stores. Some tomatoes are sent to canneries where they are processed for sauces or ketchup. Special herbs, such as oregano, dill, and garlic, are added to tomatoes used in pizza sauce to give it a special taste.



*The 43rd president
George W. Bush
reportedly loved
Cheeseburger Pizza*





Onions

There are about 1,100 onion farms in the United States. Seventy of them can be found in Illinois on 300 acres of ground. Onion bulbs are raised either from seed or “sets.” Onion bulbs grow underground and have long green tops. After they are picked and cleaned, they are either sold at grocery stores or sent to processing plants. At processing plants, they are diced or processed to be put into food such as spaghetti, barbecue sauce and pizza. Each of us eats about 20 pounds of onions per year.



Mushrooms

There are over 10,000 mushroom types throughout the world, and scientists are discovering more all the time. Only about 60 different mushroom types are grown commercially for food. There are over 300 commercial mushroom growers in the United States. Mushrooms grow in cool, dark places. They lack chlorophyll, the green substance used by plants to make food, so they survive by soaking up



37% of all pizza orders include a plain cheese pizza.

Cheese

Cheese is made up from milk that comes from dairy cows. Illinois companies produce more than 77 million pounds of cheese each year. Kraft Foods, a major cheese producer, is in Northfield, Illinois. Cheddar is the most popular cheese, followed by mozzarella, commonly used on pizza. We all have our favorite toppings but chances are, everyone likes cheese.



Pizza

History Timeline

4000 BC

Egyptians began making bread with yeast.

425 BC

Egyptians traditionally celebrated the Pharaoh's birthday with flat bread seasoned with herbs.



79 AD

The first signs of pizza-making were found in Pompeii, Italy, which was destroyed by the eruption of Mt. Vesuvius. Marble slabs and other tools of the trade resembling a modern day pizzeria were found in some of its shops.



600 AD

Originally, mozzarella cheese was made from the milk of water buffalo. Today, pizzerias in Naples, Italy still make it this way!



1522

Tomatoes were introduced to Europe when they were brought back from the New World (Peru). There, they were added to yeast dough to make the first pizza as we know it today.



17th Century

Naples, Italy was the place to go for good pizza. It was made by peasant men, known as "pizzaiuolo." To this day, Naples is known as the "Pizza Capital of the World."



1889

Raffaele Esposito prepared a pizza with ingredients representing the colors of the Italian flag for then King of Italy, Umberto I, and his wife, Queen Margherita. This dish, "Pizza Margherita," is still popular today.



1945

While stationed in Italy during World War II (1941-1945), American soldiers fell in love with pizza. When they returned from the war, they still craved it, so the popularity of pizza in America grew.



1948

The first commercial pizza-pie mix was produced in Worcester, Massachusetts by Frank A. Fiorello.

2004

Americans bought more than four billion fresh and one billion frozen pizzas in this year.



2010

On any given day in this year, about 1 in 8 Americans consumed pizza. More than 1/4 males between ages 6-19 consumed pizza on any given day.



Tim Yohnka
President/CEO



New Day Hydroponics
Momence, IL – Kankakee County

What is New Day Hydroponics?

NDH is a company I started after graduating from Illinois State University in 2012. I grow lettuce, basil, and other herbs using only water. This process is called hydroponics.

How does hydroponics differ from traditional farming?

Hydroponics is different from traditional farming. In hydroponics, the seed is planted into a growing media which is non-soil based. Once the seed has germinated or sprouted it is transplanted into a hydroponic system. After about six to seven weeks, the plant is ready to harvest.

Hydroponics comes with many advantages. One of those advantages is the sustainability of the practice. Growing plants hydroponically actually takes less water and nutrients than traditionally grown crops, therefore, making hydroponics environmentally friendly!

A challenge that comes along with hydroponics is the cost it takes to start a hydroponic operation. Most of the equipment is very expensive and requires a fair amount of maintenance and management.

What interested you about the hydroponics process?

Being innovative is something that has run in my family for many generations. The concept of growing plants in nothing but water interested me as a way of keeping innovation alive. The fact that any plant can be grown hydroponically held a strong impression in my mind.

What do you like on your pizza?

I really like anything on my pizza, as long as it's not anchovies!

Laura Wall
Tourism Director



Marcoot Jersey Creamery
Greenville, IL – Bond County

Tell us a little bit about the Marcoot Creamery.

Marcoot Jersey Creamery is a seventh-generation, family-owned Jersey dairy farm in Greenville, Illinois. We work hard to produce quality products, and we are pleased to share them with you and your family.

What types of dairy products do you produce?

We handcraft artisan and farmstead cheeses, fruit and whey ices, and custard-style ice cream. You can find our products at many grocery stores and restaurants in the Midwest.

What are the nutritional benefits of dairy foods?

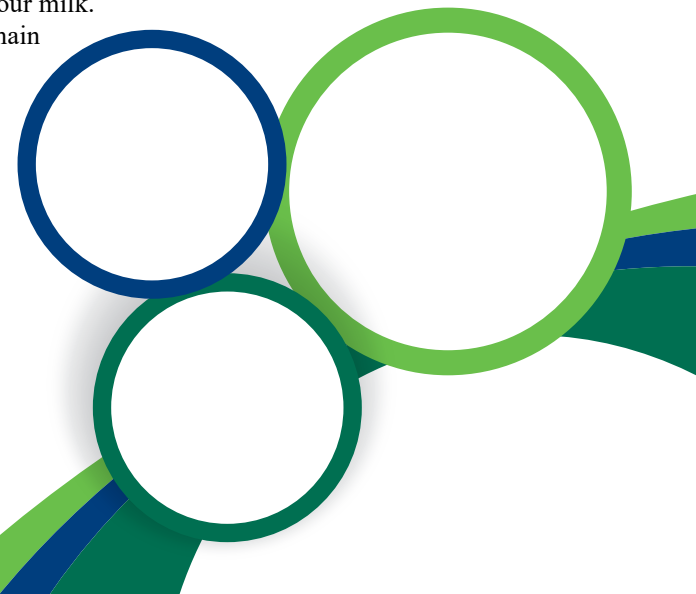
Adding dairy foods to your meals is an easy way to have a healthy diet because they contain calcium, potassium, vitamins A, D and B12 along with other great nutrients.

How do you produce different types of cheese from the same milk?

We do this by adding different cultures to our milk. Culture, which is made from milk, is the main way we can get the cheese flavor we want. We can also get flavor from what temperatures and pH levels we heat the milk and curd at.

What toppings do you like on your pizza?

Cheese (of course!) and Canadian Bacon.



Ruth Zeldenrust

Zeldenrust Farm Market
Chicago Heights, IL – Cook County



Can you describe your farm market for us?

We have 82 acres, about 45 of which is dedicated to corn and soybeans. The rest of our land is used for veggies like tomatoes, mustard, eggplants, peppers, pumpkins, and zucchini squash. Our tomatoes and peppers are our biggest hits.

In the fall, we start in the greenhouse making plant cuttings which we then transplant into the ground in the spring, instead of using direct seeding. From there, we do most of our work by hand. Once the fruits are ripe, they are picked, graded, and cleaned by hand, and then hand packed before being sold.

What makes farming near an urban area unique?

Many of our customers are less familiar with agriculture than they might be in a more rural area. We try to help educate our customers about their food choices and correct any misinformation they may have picked up from less-than-credible resources on the internet.

I also keep my own bees on the farm. They help with pollinating our vine plants and make honey that we can sell. Many people do not know how vital bees are to pollinating trees.

What do you get on your pizza?

I like sausage, pepperoni, and cheese with a few green olives. We put the spinach we grow on our pizza, too!

**This Ag Mag
has been provided by**



Fraction Action

1. Draw a round pizza crust.
2. Use a ruler to divide the pizza into two halves.
3. Next, divide the pizza into four fourths.
4. Finally, divide the pizza into eight eighths so each slice is one-eighth of the whole pizza.
5. How many pizzas would you need to give everyone in your class a $\frac{1}{8}$ pizza slice?
6. How many pizzas would you need to give everyone in your class two slices of pizza?



This Ag Mag compliments and can be connected to the following Standards:

Common Core State Standards: ELA-Literacy.RI.4.2; RI.4.3; RI.4.10; W.4.2
Mathematics-Content.3.NF.1; 3.NF.3; 3.MD.3; 3.G.2; 5.NF.1

Next Generation Science Standards: Life Sciences: 3-LS1; 4-LS1; Physical Sciences: 2-PS1-1

Illinois Social Science Standards: SS.1.3; SS.EC.2.1; SS.G.3.3

To learn more about Agriculture, visit us at www.agintheclassroom.org, or contact your county Farm Bureau® office or Agriculture in the Classroom, Illinois Farm Bureau®, 1701 Towanda Avenue, Bloomington, IL 61701.