

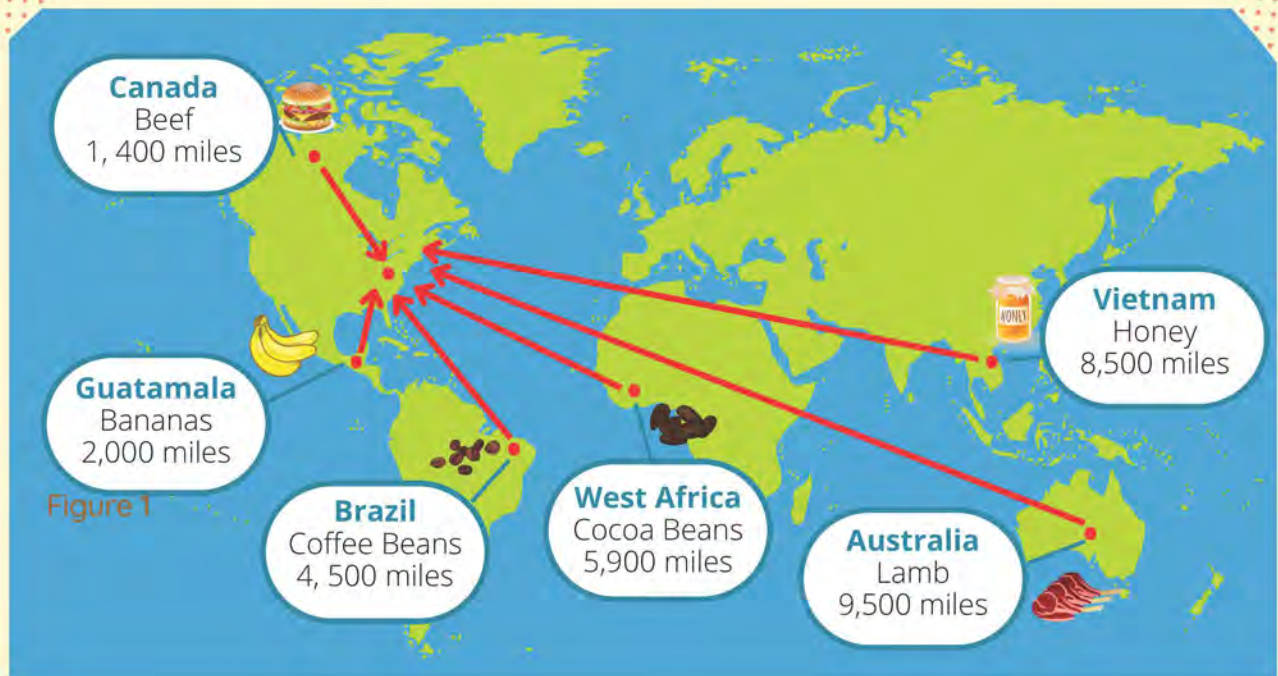
# GUARDIANS OF THE FOOD GALAXY

## LESSON 9



# Food Miles and Shrinking our Food's Carbon Footprint

Take a few minutes to review the images below.



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# NOTICE AND WONDER

What I  
*Notice*

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What I  
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NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# VIDEO GUIDE

Using the worksheet, answer the following questions.

1- What are food miles?

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2- What are some environmental impacts of food miles?

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3- How can you reduce your food miles?

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# Food Miles and Shrinking our Food's Carbon Footprint

Take a few minutes to review the images below.

<b>Produce Type</b>	<b>Locally grown</b>	<b>Conventional Source Estimation</b>
Apples	61	1,726
Beans	65	1,313
Broccoli	20	1,846
Cabbage	50	719
Carrots	27	1,838
Corn, Sweet	20	1,426
Garlic	31	1,811
Lettuce	43	1,823
Onions	35	1,759
Peppers	44	1,589
Potatoes	75	1,155
Pumpkins	41	311
Spinach	36	1,815
Squash	52	1,277
Strawberries	56	1,830
Tomatoes	60	1,569

Figure 2

Leopold Center for Sustainable Agriculture; Iowa State University (2003)

# FOOD MILES DETECTIVE



Detectives. We must uncover which food item has traveled the most Food Miles and caused the most Greenhouse Gas Emissions.

Use the following clues to determine the name of your food item and calculate the total Food Miles.

①

## EVIDENCE

This food item is.....

- a fruit
- yellow with a spiky green top
- tropical
- who lives in a \_\_\_\_\_ under the sea?



Food Suspect: \_\_\_\_\_

②

## EVIDENCE

This food item was produced in Costa Rica then it travels.....

- 35 miles to the processing facility
- 2, 889 miles by boat to a US port
- 23 miles from US port to a food warehouse
- 16 miles from warehouse to grocery store



Total Number of Food Miles: \_\_\_\_\_

Food Suspect: \_\_\_\_\_

Total Number of Food Miles: \_\_\_\_\_

# FOOD MILES DETECTIVE



Detectives. We must uncover which food item has travelled the most Food Miles and caused the most Greenhouse Gas Emissions.

Use the following clues to determine the name of your food item and calculate the total Food Miles.

①

## EVIDENCE

This food item is.....

- a fruit
- has a large pit in the center
- is yellow/orange inside
- redish green outside
- starts with an "M"



Food Suspect: \_\_\_\_\_

②

## EVIDENCE

This food item was produced in Mexico then it travels.....

- 10 miles to the processing facility
- 1,191 miles by boat to US port
- 24 miles by truck to food warehouse
- 12 miles to grocery store



Total Number of Food Miles: \_\_\_\_\_

Food Suspect: \_\_\_\_\_

Total Number of Food Miles: \_\_\_\_\_

# FOOD MILES DETECTIVE



Detectives. We must uncover which food item has travelled the most Food Miles and caused the most Greenhouse Gas Emissions.

Use the following clues to determine the name of your food item and calculate the total Food Miles.

①

## EVIDENCE

This food item is.....

- sticky
- a golden color
- comes from bees



Food Suspect: \_\_\_\_\_

②

## EVIDENCE

This food item was produced in Vietnam then it travels.....

- 25 miles to the processing facility
- 17 miles to a packaging facility
- 8,568 miles by boat to US port
- 12 miles to food warehouse
- 15 miles to grocery store



Total Number of Food Miles: \_\_\_\_\_

Food Suspect: \_\_\_\_\_

Total Number of Food Miles: \_\_\_\_\_



# FOOD MILES DETECTIVE



Detectives. We must uncover which food item has travelled the most Food Miles and caused the most Greenhouse Gas Emissions.

Use the following clues to determine the name of your food item and calculate the total Food Miles.

①

## EVIDENCE

This food item is.....

- one of the most popular meats in the world
- comes from a common farm animal
- is used to make a popular breakfast food



Food Suspect: \_\_\_\_\_

②

## EVIDENCE

This food item was produced in

China then it travelled.....

- 17 miles to the processing facility
- 7,233 miles by boat to US port
- 25 miles to a food warehouse
- 13 miles to grocery store



Total Number of Food Miles: \_\_\_\_\_

Food Suspect: \_\_\_\_\_

Total Number of Food Miles: \_\_\_\_\_

# Food Miles and Shrinking our Food's Carbon Footprint

Group Number: \_\_\_\_\_

Assigned Fruit/Vegetable: \_\_\_\_\_

Look at the following produce sticker:



Use the food miles calculator to find out how many miles your food item has travelled to get to the United States

Go to: <http://www.foodmiles.com/>

Food Miles: \_\_\_\_\_

# Food Miles and Shrinking our Food's Carbon Footprint

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Group Number: \_\_\_\_\_

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Use the food miles calculator to find out how many miles your food item has travelled to get to the United States

Go to: <http://www.foodmiles.com/>

Food Miles: \_\_\_\_\_

# The First Greenmarket in New York City

by ReadWorks



Where do fruits and vegetables come from? When we go to the grocery store, there are shelves of carrots, lettuce, and broccoli. All of this produce comes from farms. Sometimes those farms are very far away. Many of the grapes sold in the United States are grown in South America. The lettuce could be grown in Mexico. Trucks, ships, and planes bring food from all over the world to a grocery store near you.

But there are also farms close by. In the 1970s one man thought that we should be eating more food from local farms. His name was Barry Benepe, and he lived in New York City. New York City is the largest city in the United States-over 8 million people lived there in 2013!

Barry knew that there were tasty vegetables being grown close to New York City. But the farmers couldn't sell these vegetables to the people in the city. Grocery stores in New York bought their vegetables from far away and didn't want to buy vegetables from the nearby farms.

Barry knew there had to be a way to sell local vegetables to New Yorkers. "What if the farmers could bring the vegetables to the city themselves?" he asked. Every week, the farmers would drive into the city and set up a market where they could sell their vegetables.

Barry took his idea to the city government. At first the city had doubts. It wasn't sure New Yorkers would care enough to buy the vegetables from local farmers instead of the grocery store. But Barry convinced the city officials, and they agreed to help. The new farmers' market was called a "Greenmarket."

The first Greenmarket in New York City opened on a Saturday in July 1976. It was very popular. On the first day, most of the farmers sold everything they had. It felt like a party. People chatted and laughed. Neighbors met each other for the first time.

The fruits and vegetables at the Greenmarket were much fresher than the fruits and vegetables at the big grocery stores. It took a lot of time for tomatoes to come to New York from Mexico—they had to cross much of a continent. But tomatoes from near the city didn't have to travel as far. The farmer could pick them on the same day. These local tomatoes were delicious.

"The success of the market is touching and smelling the fruits and vegetables," said Barry. New Yorkers agreed. They loved the Greenmarket so much that they wanted more farmers' markets. Barry worked with the city, and they made markets in other neighborhoods. By 2013, New York City had 54 farmers' markets. They were in every part of the city and on every day of the week.

Other states saw how popular the farmers' markets were and decided that they wanted to have their own markets. Soon there were farmers' markets across the country. Barry Benepe had started a trend.

Now the farmers' markets in New York City don't just sell vegetables and fruits. You can also buy meat, bread, yogurt, eggs, milk, plants, and pastries. All of the foods at the farmers' markets still come from farms that are close by. Not only does this help the farmers, it makes less pollution.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Where did the first Greenmarket open?

- A. Chicago
- B. Boston
- C. New York City
- D. San Francisco

2. The passage describes the sequence of events which led to the first Greenmarket in New York City. Which of the following is one of those events?

- A. Farmers' markets in New York City began selling other foods besides fruits and vegetables.
- B. Barry Benepe convinced New York City government to help establish a farmers' market.
- C. Farmers' markets were opened across the country after other states saw how popular the farmers' markets in New York were.
- D. New Yorkers demanded more farmers' markets.

3. The New York City government was not eager to start a farmers' market. What detail from the text supports this conclusion?

- A. People chatted and laughed at the first Greenmarket.
- B. The city government finally agreed to help Barry Benepe open the first Greenmarket.
- C. The new farmers' market was called a Greenmarket.
- D. The city government wasn't sure New Yorkers would care enough to buy the vegetables from the local farmers instead of the grocery store.

4. What does the passage suggest about Benepe's role in the spread of farmers' markets across the country?

- A. Benepe's role was important because he helped other states open farmers' markets.
- B. Benepe's role was important because he started the trend of farmers' markets.
- C. Benepe's role was not important because he only helped open Greenmarkets in one state.
- D. Benepe's role was not important because he was unable to influence the New York City government to open a farmers' market.



5. What is this passage mainly about?

- A. why people like fresh vegetables
- B. how farmers' markets got established in New York City
- C. how to have a farm near New York City
- D. what Barry Benepe did for a living

6. Read the following sentences from the passage: "It took a lot of time for tomatoes to come to New York from Mexico—they had to cross an entire continent. But tomatoes from near the city didn't have to travel as far. The farmer could pick them on the same day. These **local** tomatoes were delicious."

As used in the passage, what does the word "**local**" mean?

- A. nearby
- B. country
- C. unripe
- D. far away

7. Choose the answer that best completes the sentence below.

All the food, \_\_\_\_\_ vegetables, fruit, eggs, meat, and milk, sold at farmers' markets in New York City comes from a local farm.

- A. consequently
- B. except
- C. such as
- D. however

8. Barry Benepe was passionate about his idea of starting a farmers' market in New York City. What evidence from the text supports this conclusion?

9. Explain at least two differences between the fruits and vegetables sold in a grocery store and the fruits and vegetables sold at the Greenmarket.

10. Explain whether one should support the spread of farmers' markets. Use evidence from the text to support your answer.