



..... THIS MONTH
WE'RE HARVESTING

Tomatoes!

In This Issue



AND MORE!

Farmer Spotlight

CHRIS COELHO- WOOLF FARMING
HURON, CA

Marinara. Ketchup. Barbecue sauce. These are just a few of the products produced from the 2,600 acres of processing tomatoes managed by farmer Christopher Coelho.

Having grown up on a farming operation, Coelho uses his considerable experience to oversee production at Woolf Farming—from planting to harvest, and everything in between.



For Coelho, tomato season begins in late February when tomato plants are planted in the field as seedlings. Once planted, Coelho cares for the plants to ensure the greatest yield per acre. Technology has made Coelho's job easier. "We use satellite imagery to monitor for moisture stress and disease in the field," Coelho said. "We get an image that shows any color variation in the field, which helps us detect potential problems."

Tomatoes are ready for harvest beginning in early July and continuing through October. Mechanical harvesters move through the fields picking the entire tomato plant and shaking the tomatoes off the vine. Electronic sensors on the harvesters sort the ripe, red tomatoes from the vine and transfer them into a gondola pulled by a tractor following alongside. The tomatoes are immediately transported from the fields by trucks, which can hold approximately 50,000 pounds of tomatoes. "During peak harvest, we're operating 17 tomato harvesters with each harvesting 40 truck loads in one day," Coelho said. "It's a lot of tomatoes."

Within a few hours, Coelho's tomatoes arrive at Los Gatos Tomato Products, where they are first inspected and graded by the USDA for quality, and then processed into a paste used in ketchup, pasta sauce, pizza sauce, juice and more. There are hundreds of ways to consume tomatoes, but for Coelho, the best way is on his pasta. "I am a big pasta sauce guy. My mom's Italian, so pasta was a big part of growing up." Any way you enjoy them, processing tomatoes, picked at peak ripeness, allow consumers to enjoy the taste of summer all year long.

FOOD for FUEL

HERE ARE SOME OF THE
BENEFITS OF EATING TOMATOES
AND TOMATO PRODUCTS:

TOMATOES PROVIDE UNIQUE
health benefits

THEY ARE FULL OF ESSENTIAL
VITAMINS AND FIBER, AND RICH
IN ANTIOXIDANTS.

Healthy SKIN

The beta-carotene and lycopene found in tomatoes makes skin less sensitive to sun damage.

Improved VISION

Vitamin A found in tomatoes can improve vision, help prevent night blindness and may help reduce the risk of macular degeneration.



Strong BONES

The vitamin K, calcium, and lycopene in tomatoes is good for strengthening and repairing bones as well as improving bone mass.

Tomatoes do not lose their health benefits when cooked. In fact, lycopene, a powerful antioxidant that helps prevent cancer, is more easily absorbed by the body when tomatoes have been processed.



LADYBUG SANDWICH

Did you know ladybugs are helpful predator insects? Ladybugs feed on various harmful pests found on or near tomato plants, including aphids, spider mites, and ants. Celebrate the mutually beneficial relationship between tomato plants and ladybugs with this fun snack.



Ingredients:

- One slice whole wheat bread, toasted
- One cheese slice
- One lettuce leaf, reserve part of the stem
- Roma or processing tomato, sliced in 1/4-inch slices, lengthwise
- One cherry tomato
- Sliced olives
- Candy eyes
- Edible “glue,” such as mayonnaise, cream cheese, or sun butter

(Adapted from potatorolls.com)

Directions:

1. Wash your produce under running water.
2. Place the cheese slice on top of the whole wheat bread.
3. Place a lettuce leaf on top of the cheese slice.
4. Cut a tomato slice in half. Arrange the halves on top of the lettuce leaf to make the wings of the ladybug.
5. Cut the cherry tomato in half. Place one half of the tomato near the wings to create a head.
6. Arrange sliced olives on top of the ladybug’s wings.
7. Cut two thin slivers from the lettuce stem. Place them near the head to create antenna.
8. Adhere the candy eyes with edible “glue.”



Salsa Dissection

roasted tomatoes, tomato paste, spices, and dried chiles. However, you can also find unusual ingredients like papaya, mango, plantains, or black beans. Salsas can be smooth or coarsely textured, thick or thin, mild or hot.

Materials: Fresh or cooked salsa, small paper plates, toothpicks, cheesecloth, magnifying lenses, scale, student worksheet (page 3)

Procedure:

1. Before the lesson, use the cheesecloth to drain as much liquid as possible from the salsa. Older students may be able to accomplish this step independently.
2. For younger students, read the book *Dragons Love Tacos* written by Adam Rubin and illustrated by Daniel Salmieri.
3. Ask students to raise their hand if they have salsa in their home right now. Discuss the different styles of salsa. Have students raise their hands to vote for their favorite style. Tell students they will be dissecting a jar of salsa to see what’s inside.
4. Predict what ingredients will be discovered. Older students can also predict the ratios of each ingredient in the salsa.
5. Distribute toothpicks, a paper plate, and two tablespoons of salsa to each group. Have groups weigh and record the mass of their salsa.
6. Using toothpicks and magnifying lenses, instruct students to separate their salsa by ingredient. Find the mass of each ingredient. Record data.
7. For older students, use proportional reasoning to convert weights to percent (or degrees) and create a pie chart.
8. Compare results and discuss how tomatoes change the color, flavor, and texture of salsa.

Processing tomatoes add color, flavor, and texture to salads, pizza, pasta, and soup. In recent years, salsa has become one of America’s favorite condiments. For every bottle of ketchup purchased, Americans are purchasing two jars of salsa. Cooked salsas typically use

Objective:

Students will analyze, determine ingredient mass and proportions, and explore the essential role of tomatoes in salsa.

California Standards:
CC Math: 3-4.MD.2, 6-7.RP.3

Salsa Dissection

Prediction

WHAT INGREDIENTS WILL BE IN THE SALSA?

Procedure

1. Place the salsa and plate on a scale. Record the total mass in grams.
2. Use a toothpick to separate the different salsa ingredients.
3. Place each unique ingredient on a new plate before weighing.
Record the mass of each ingredient.
4. Record your observations of each ingredient.
5. Make a conclusion and compare your results with your classmates.

Ingredient	Mass (grams)	Observations Color, Size, Shape



Did you know?

For every bottle of ketchup purchased, Americans are purchasing two jars of salsa.

Conclusion

virtual



This animated short film, created by the Tomato Wellness Council, depicts how vine-ripened tomatoes are grown, harvested, and made into the tomato products we enjoy.



SCAN ME

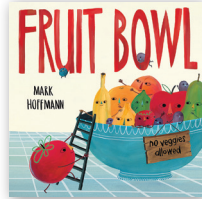
DIG DEEPER

These books, websites, and other resources will help you and your students learn more about tomatoes.

BOOKS

Fruit Bowl by Mark Hoffman

Who belongs in the fruit bowl? When Tomato tries to hop in, the rest of the fruit bowl objects. Can Tomato use scientific thinking to convince the others that he belongs?



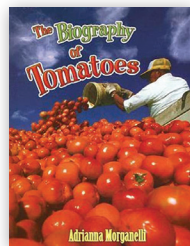
From Tomato to Ketchup by Roberta Basel

This nonfiction book provides an introduction to the basic concept of food production, distribution, and consumption by tracing the production of ketchup from tomatoes to the finished product.



The Biography of Tomatoes by Adrianna Morganelli

This fact-filled and descriptive book will help readers learn the tomato's history, how tomatoes have become a major part of our diet, and whether a tomato is a fruit or vegetable.



WEBSITES

tomatowellness.com

Representing all tomato products, the Tomato Wellness Council educates consumers about the many health benefits of tomato consumption. This consumer-focused website features recipes, videos, and more.

ctga.org

The California Tomato Growers Association website highlights tomato facts, production statistics, and health information. Consumers will enjoy featured chef profiles and related recipes.

learnaboutag.org

The California Foundation for Agriculture in the Classroom provides free resources to teachers. The resources highlight many of California's 350 agricultural commodities, including processing tomatoes.

RESOURCES

Lesson Plan: Tomato Trivia (Grades K-2)

By California Foundation for Agriculture in the Classroom

Using tomatoes as a theme, students will practice their math and science skills of estimating, measuring, counting, graphing, and sequencing.

Lesson Plan: Tomato Exploration (Grades K-5)

By Growing Minds

Introduce students to different varieties of tomatoes, how they grow, and how they taste. Students will create a three-dimensional model of a tomato using basic craft supplies.

