

WE'RE HARVESTING

Melons!





Farmer Spotlight

TOMMY BOTTOMS - TREMONT FARMS DIXON, CA



In 2022, Tommy
Bottoms and his
wife, Mandi, launched
Tremont Farms near
Davis, California. After
earning his PhD in plant
sciences at UC Davis,
Bottoms decided he
wanted to farm himself

rather than stay in academia. Before starting his own operation, he gained hands-on experience working with other farmers in the area. Today, he and Mandi manage 6,000 acres planted with a mix of crops, including four types of melons: hami, cantaloupe, honeydew, and watermelon.

Seedless watermelon has been a special focus for Bottoms over the past five years. Planting starts each spring when the soil warms, usually in April, so harvest lines up with summer demand. Tractors build raised beds for each row. Later, workers ride behind a tractor and plant young watermelon plants by hand. They add water to each plant to help it grow strong roots.

Drip irrigation keeps water flowing to the roots while keeping the fruit dry. Bees are just as important as water. "The real heroes

of watermelon production are the bees," Bottoms said. "We do everything in our power to create an environment where the bees are happy and willing to work." Watermelon vines grow bright yellow flowers that must be pollinated for the fruit to form. Once pollinated, the melons take about 45 days to ripen.

Knowing when a watermelon is ready to harvest takes a trained eye. Growers look for the right size, check for the pale spot on the underside, and watch a small tendril near the stem that dries out as the fruit matures. Many will also tap the melon and listen for a clear ping instead of a dull thud.

Fields are harvested in stages. "A single field will be picked two or three times," said Bottoms. "That first pick usually brings in about half the crop." Melons are sorted by size, packed into bins, and loaded onto trucks bound for grocery stores, distribution centers, and food service buyers. Some of Bottoms' watermelons even end up at his daughters' elementary school, where students get to taste them fresh in the classroom. "Being able to share our melons with the community is always rewarding," he said. "We're proud to grow a fruit that everyone can enjoy."

FOOD 401 FUEL



Melons provide unique health benefits. They are full of essential vitamins and a natural source of beneficial antioxidants.

HERE ARE SOME OF THE HEALTH BENEFITS OF INCLUDING MELONS IN YOUR DIET:

Jmmune System SUPPORT

Cantaloupe and honeydew melons are packed with vitamin C, which helps keep your body healthy and fight off sickness.

HEART

Watermelon contains an antioxidant called lycopene, which gives the fruit its red color. Lycopene helps protect your body's cells from damage and supports heart health.

HELP HELP

Melons like watermelon and honeydew are mostly water. Eating them helps you stay hydrated, which helps your body feel good and makes it easier for food to move through your body.



MELON SNACK STACK

Cutting and stacking melon shapes is a fun, hands-on way to spark creativity and practice fine motor skills. While building colorful stacks, students learn to follow directions, experiment with patterns, and use simple tools safely. The best part? The final creation makes a refreshing and healthy snack!



Ingredients:

- Assorted seasonal melons
- 1 pint of fresh blueberries (optional)

Tools:

Toothpicks, cookie cutters in different shapes and sizes, knife and cutting board, small plate or tray for serving

Wirections:

- 1. Gently wash all produce under cold running water.
- 2. Cut melons into large slices about one inch thick. Remove any pulp and seeds, but leave the rind on the fruit for easier cutting.
- 3. Use cookie cutters to press out fun shapes from the melon slices. Try stars, hearts, flowers, or circles!
- 4. Place the melon shapes on a clean plate or tray.
- 5. Use toothpicks to build stacks of shapes.
- 6. Add blueberries between the melon pieces for extra color and flavor.
- 7. Make a pattern, like melon-blueberry-melon, or stacking shapes biggest to smallest.
- 8. Arrange your finished stacks on a plate and share with family or friends.

Always check student information, especially allergies, before preparing or serving food to keep everyone safe.



Melon ID: Using **Observable Traits**

Melons come in many shapes, sizes, colors, and textures, making it tricky to tell them apart. Scientists use tools called dichotomous keys, which are step-by-step guides based on physical traits to classify and identify living things. By studying different melon varieties, we can create a key that helps others identify unknown types.

Materials: Two melon varieties (optional), plates or napkins for samples (optional), worksheet (page 3, printed in color)

Procedure:

Before the lesson, the teacher will prepare and pre-cut all ingredients, then arrange them in separate containers at the front of the room.

California Standards: NGSS: 3-LS3-1, 3-LS3-2, Developing and Using Models (SEP); CC ELA: RST.6-8.3, SL.3-8.1

Students will use observation and

comparison skills to classify melon

They will develop and organize data

varieties based on physical traits.

into a dichotomous key, applying

scientific reasoning and using precise language to help others

Objectives:

identify melons.

- 1. Before the lesson, purchase two contrasting melon varieties (for example, watermelon and cantaloupe) and prepare samples for students to observe and taste.
- 2. Show students the two melons. Ask: "What question could you ask about the melons' characteristics that would help identify them? For example: Is the melon's rind smooth or netted (bumpy)?" Use this discussion to introduce dichotomous keys as tools scientists use to identify living things by asking a series of yes/no or either/or questions.
- 3. Students examine the melon varieties on the worksheet. They record their observations about color, shape, texture, and pattern.
- 4. Students consider their observations and identify one characteristic that splits the group into two. They continue separating until each melon variety stands alone. They record their unique questions and splits on the worksheet.
- 5. After students have completed their written keys, the teacher will demonstrate how to turn a question-based dichotomous key into a visual branching diagram. Students use the blank back side of their worksheet to create their own visual key.
- 6. Conclude by inviting students to reflect on what they noticed about how their questions guided them and how dichotomous keys help organize observations and identify living things.
- 7. Optional: Allow students to taste the melon varieties provided in class. Facilitate a discussion about how flavor and texture are additional traits that could be used in classification, and compare how external vs. internal traits are useful.



Melon ID: Making a Dichotomous Key

A dichotomous key is a tool that helps identify living things by asking a series of questions. Each question has two possible answers that guide you to the next step or the final identification.



Part 1: Look at the five melon varieties below. Write your observations about each one.

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-	Melon Variety	Skin Color	Flesh Color	Skin Texture	Pattern/Other
Constitution of the last					







Honeydew





Watermelon

Santa Claus Melon

Cantaloupe

Galia Melon

Part 2: Using the characteristics in the table above, find one physical characteristic that can divide the melons into two groups. Write an either/or question related to that characteristic.

Question:				
Group A Melons:				
Group B Melons:				
Part 3: Choose another characteristic and divide your groups again until each melon is listed alone.				
→ Group A Question:	roup A Question:			
	bgroup A1:			
Subgroup A2:				
→ Group B Question:				
ubgroup B1:				
Subgroup B2:	ubgroup B2:			
Part 4: If needed, divide the subgroups again.	<mark>ırt 4:</mark> If needed, divide the subgroups again.			
Subgroup A Question:	— Subgroup B Question:			
Subgroup A1a:				
Subgroup A1b:				



This video takes viewers to Perry & Sons, a fourth-generation family farm rooted in California's San Joaquin Valley. Known as one of the state's largest watermelon growers, the Perry family walks us through how their melons are harvested, cleaned, sorted, and sized.



DIG DEEPER

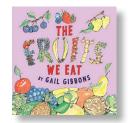
These books, websites, and other resources will help you and your students learn more about melons.



The Fruits We Eat

by Gail Gibbons

This nonfiction book explains how different fruits grow, including cantaloupe and other melons, along with other favorites. It's clear, colorful, and age-appropriate for elementary students.



Watermelon Day

by Kathi Appelt

This fiction picture book tells the story of a young girl eagerly waiting for her homegrown watermelon to ripen. It introduces children to the basics of growing food by following the

planting, tending, and harvesting of a watermelon on a warm summer day.

Watermelon Wishes

by Lisa Moser

This fiction picture book shows a boy and his grandfather planting watermelon seeds and caring for them through the growing season. Readers learn about planting, watering, and waiting



for watermelons to ripen while following a simple family story.





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watermelon.org

The Watermelon Board website shares fun watermelon facts, nutrition tips, and growing information. Visitors will find delicious recipes, kidfriendly activities, and helpful ideas for serving and storing watermelon.

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 melons.

fruitsandveggies.org

Created by the Produce for Better Health Foundation, this website is a great source for learning about cantaloupe, honeydew, and watermelon. The site features nutrition facts, storage and handling guides, and recipes that make it easy for families to add more fresh fruit to their meals.

RESOURCES

Lesson Plan: Melons, Mitosis, and Meiosis (Grades 9-12)

By Utah Agriculture in the Classroom and National Center for Agricultural Literacy (NCAL)

In this lesson, students will apply the steps of mitosis and meiosis to understand how both seeded and seedless watermelons are produced. They will also learn about the discovery of colchicine, which made seedless watermelons possible.

Activity Plans: Watermelon Teacher Toolkit (*Grades K-12*)

By the Watermelon Board

Organized by subject area, this teacher toolkit includes worksheets and easy-to-follow activity plans to help students learn about watermelons. From hands-on science experiments to creative math exercises, this collection brings learning to life with a juicy twist.

Partnering for Farm to School Success

Great things happen when classrooms and cafeterias work together! Discover resources and a special guide packed with creative ideas for partnering with your school nutrition program.

Download today at learnaboutag.org/farmtoschool.

