



Cream of the Crop

A harvest of ideas for educators

June 2019



California Foundation for Agriculture in the Classroom

We're Moving!



Our new address is:
2600 River Plaza Drive, Suite 220
Sacramento, CA 95833

Our office will be closed Friday, May 31 and
Monday June 3. Our phone lines will be
disconnected during the move but will be back
on Tuesday, June 4, 2019.

Thank You!

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Wisdom Elementary School students enjoying their edible plant garden made possible through a 2018 [Literacy for Life grant](#).



LearnAboutAg

SAVE THE DATE: 2019 Agriculture in the Classroom Conference



October 17-19, 2019
DoubleTree by Hilton Sonoma
Rohnert Park, CA

General Registration: \$275
(includes all meals, resources and farm tours)

We are seeking enthusiastic presenters who would like to share their expertise, experience, and educational resources with our attendees.

Proposals are now being accepted for:

Workshops

Make 'n' Takes

Exhibits

"A Taste of California"

Register Now!

Teacher Feature

Jennifer Stone

Transitional Kindergarten Teacher
Isabelle Jackson Elementary
Sacramento County

1. What is your favorite AITC program/resource/event and why?

As a recipient of the Taste and Teach grant program my class has enjoyed tasting a variety of California commodities. The Fact Sheets and curriculum units that AITC has available on their website for each commodity have a wealth of information and activities to try with students. We are trying commodities and new recipes that the students get to make. Kids learn best through hands-on learning!



2. Describe any agriculture-based projects you have been involved in lately.

My Transitional Kindergarten class recently completed a science fair project:

"What is the Best Way to Keep Apple Slices From Turning Brown." We have been studying nutrition and the importance of eating fruits and vegetables. The students in my class do not like eating apple slices once they have begun to brown, and we wanted to find a healthy way to keep them from doing so. We tested the effects of water, lemon juice and vinegar. Lemon juice was the most effective. The project won first place for primary grades at my school and took second place for the kindergarten level at the School District Science Fair! The students loved testing the apples and observing the changes, and obviously are very proud of their achievement!

3. Do you have any advice for other teachers on how to implement agriculture into the classroom?

Agriculture is everywhere. Choose something that you are passionate about, whether it is plants, animals, nutrition, conservation, etc., and begin to implement one lesson or activity at a time, and slowly add more as you are able. You and your students will have so much fun learning!



Meat 'n' Greet - LearnAboutAg... Beef Seminar

take 5
Beef is a healthy food, safe and sound.
The best of California beef and swine.

bountiful
California's bounty, even for humans. One of the most important health benefits of beef is that it acts as a transporter, taking all oxygen to the body and allowing it to be used for movement to keep organs working properly. On the way out, it picks up carbon dioxide to take back to the lungs, where it is released.

1 PROTEIN
Amino acids, protein is the most plentiful substance in the body. The word is derived from the Greek "protos," which means "primary," as it is the essential building block of all the living processes that take place in the body. It helps build and repair muscles, as well as cartilage, ligaments and tendons that hold joints and support bones.
Daily Value provided by 3 oz. lean beef: 46%.

2 ZINC
Found in cells throughout the body, zinc promotes overall health. Essential to the body's protein, cholesterol, DNA, and gene and enzyme production, zinc also helps maintain healthy immune systems, assists in healthy pregnancy and protecting the vision of people, which increases night vision capacity for use at night.
Daily Value provided by 3 oz. lean beef: 30%.

3 IRON
Carrying 80 to 90% of iron for humans. One of the most important health benefits of beef is that it acts as a transporter, taking all oxygen to the body and allowing it to be used for movement to keep organs working properly. On the way out, it picks up carbon dioxide to take back to the lungs, where it is released.
Daily Value provided by 3 oz. lean beef: 32%.

4 SELENIUM
Although not a household name, selenium is key to good health. It is involved only in small amounts, but it may regulate risk in metabolism regulation and thyroid function. Selenium is also important for antioxidant protection, which helps protect cells from damage.
Daily Value provided by 3 oz. lean beef: 40%.

5 B VITAMINS
There are eight well-known B vitamins that play a role in this body. Biotin is essential to be able to process other fat-soluble vitamins. B vitamins support metabolism and contribute to the body's ability to generate energy. B vitamins like cobalamin (B12) are the most abundant B vitamins found in beef.
Daily Value provided by 3 oz. lean beef: 20% and 40% B12.

MORE ONLINE
This is National Beef Month! Visit us at www.learnaboutag.org for more information about beef and swine. California Beef Council is growing beef at www.californiabeefforum.com.

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We are pleased to host a beef education seminar, *Meat 'n' Greet*, on Thursday, June 13, 2019 in Sacramento for 40 educators from 8:30 a.m. - 5:00 p.m. Teachers will receive free resources aligned to California state standards for use in everyday lessons and curriculum. BBQ lunch included! No fee.

[Register Today!](#)

Tentative Agenda:

- Meet Frank Mitloehner, renowned U.C. Davis Professor, Air Quality Extension Specialist, and chairman of the United Nations Food and Agriculture Organization, who will share his thoughts on how he is shaping the way science views the world's livestock production.
- Engage in STEM lessons and hands-on activities to LearnAboutBeef that are easy to incorporate into your classroom.
- Participate in a cattle ranch tour where you will have a chance to

"experience the west" and visit with real live cowboys!

- Leave with a Starter Kit of beef-focused resources including nutrition, the environment, sustainability, and agriculture literacy.

Register Today!



Featured Resource

Prolific Pollinators

Prolific Pollinators

Pollinators are essential to agriculture and the environment. 90% of plants are pollinated by animals (biotic pollination) and 70% are pollinated by wind and water (abiotic pollination). There are about 200,000 species of animals that pollinate, most of which are insects and only about 1,000 of which are vertebrates such as birds, bats, and small mammals. For abiotic pollination, 90% is due to wind and 2% is from water.

Activity Use the information to create a pollinator graph.

Activity Use information from the Pollinator Chart below as you do research, write the pollinator's name on the top line above. Then list three facts about them.

Pollinator	Pollinator	Pollinator	Pollinator	Pollinator	Pollinator
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3

What is Pollination?
Pollination is the transfer of pollen grains from the male anthers of flowers to the female parts of flowers. This allows for fertilization which allows the flowers to produce seeds.

Pollinator Math:

- 1. A 1/2 cup of bees is about 200 bees. If a colony of bees contains 40,000 bees, how many cups of bees is that?
- 2. An 8-frame colony of bees contains 12,000 bees. How many bees are in 1-frame?
- 3. Almond flowers produce about 1.0 mg of pure pollen. If you have 2 million flowers, about how many grams of pollen will be produced on a 200-acre orchard? If 1 gram = 0.032 pounds, how many pounds of pollen is that?

Pollinator Chart

POLLINATOR	PLANTS THEY VISIT	FACT
Honey Bees	Almonds, Apples	They flowers to get pollen or nectar for their food.
Asian Honey Bee/Cataglyph	Almond	Stays, or nests, in the first time before the eggs stage.
Bats	Almonds, Peaches, Pips	Because small, light, and echolocation to find flowers.
Bumble	Magnolia trees, Salsa de Chile	Account for 200,000,000 years! Largest group of pollinators.
Hummingbirds	Buckberries, Elderberry, Soda	Flap up to 80 times, wings beat 200 times per second.
Grey Hairstreak Butterfly	Malvaceae, Legumes, Alfalfa	Caterpillars known to cause damage to certain crops.

Pollinator Conservation:
There is a concern that we are losing pollinators due to habitat loss, disease, pesticides, and environmental contaminants. Farmers help by planting cover crops, wildflowers and native grasses in areas used in production. By building hedgerows, windbreaks, and providing a variety of flowering plants, farmers are attracting the native pollinators they need to grow their crops. How can you help? Add bee-friendly plants to your school yard or home to help increase native honey bee populations.

Citizen Science:
By field check and online research at www.citizen-science.org to learn more about the world's bees it is important to honey bees, and how you can help!

Activity: Create a Pollinator Poster or Collage. Illustrate, color and label at least three pollinators. Be creative!

California Fertilizer Foundation

How does your food get pollinated? Pollinators are essential to agriculture and the environment. Students will learn about the various categories of pollinators and their contribution to producing California commodities. Includes three activities, a math exercise and ideas for Service Learning and Citizen Science. This teacher resource is aligned to California Common Core and Next Generation Science Standards.

Download Prolific Pollinators

Don't forget to celebrate Pollinator Week June 17 - 23!



Grant Feature

California Fertilizer Foundation Garden Grants



The California Fertilizer Foundation's (CFF) School Garden Program's goal is to increase the understanding and awareness of agriculture and plant nutrition in California's youth through school gardens. Classroom curriculum can be

enhanced with first-hand experiences. CFF's purpose is to provide funding to California's public and private elementary, middle and high schools for continuation and/or implementation of school garden programs.

[Apply Online Today!](#)

Deadline: June 14, 2019



Want to go to Arkansas this summer?

Mark your calendars for June 18-21, 2019. Attend the 2019 National Agriculture in the Classroom Conference in Little Rock, Arkansas. Surround yourself with educators passionate about agriculture. Find out more [here!](#)

Farm Academy Live

Farm Academy Live offers classrooms virtual field trips to farms using interactive video conference technology. Trusted by teachers since 2009, 100,000 students across 33 states and four countries have benefited from this program. This 40-minute virtual tour of a farm teaches plant and animal science aligned to national science standards. The experience is enhanced by offering students the opportunity to engage in hands-on activities like ginning cotton by hand and mixing a feed ration for a dairy cow. Find out more [here!](#)



For Educators

Event Name and Description	Event Location	Event Date
Life Lab Workshops Life Lab has trained tens of thousands of educators across the nation! Sign up today for one of their many workshops, spring through summer!	Santa Cruz, CA	Spring - Summer 2019
E.A.T. Foundation Summer 2019 Ag Tour and Seminars The Ag Tour and Seminar, is a 3-day, 2 CE units workshop where agriculture and the classroom collide. The workshops include tours of local farms, dairies, and packing houses, as well as active participation in local farming and gardening techniques.	Hanford, CA	June 17-20, 2019 and July 15-18, 2019
Powerhouse Science Center For over 65 years, Powerhouse Science Center has been dedicated to partnering with educators across Northern California. Visit the center to try the hands-on labs, workshops and programs that are aligned to the Next Generation Science Standards and focus on providing opportunities for mastering disciplinary core ideas (DCIs) and Science and Engineering Practices (SEPs).	Sacramento, CA	Year-Round (including summer)

For Youth

Event Name and Description	Event Location	Event Date
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Hilmar Cheese Company School and Youth Tours

Join us for the most fun and educational field trip in the Central Valley! Free for all public, private and home schools associated with a school district. Organized and led by trained tour guides, safe and fully accessible. All students receive free cheese samples, a hairnet, Daisy's Dairy "ABCs" and a souvenir pencil.

Hilmar, CA

Year-Round

AgVentures! Learning Center

Tours of the Learning Center are available year-round for elementary school students. Cost is \$3 per student.

Tulare, CA

Year-Round

Show Your Support for Agricultural Literacy

Help us continue providing programs and materials that create an awareness and understanding of agriculture among California's educators and students. Make a [donation](#) today!

Stay Connected! @LearnAboutAg

