



UNIVERSITY OF CALIFORNIA  
Agriculture and Natural Resources

Cooperative Extension



## UC Cooperative Extension of Mariposa County Quarterly Newsletter

October 2024

### Welcome to our Quarterly Newsletter.

Welcome to quarterly UC Cooperative Extension (UCCE) Mariposa County's quarterly newsletter! We are thrilled to provide this newsletter to connect with you and share valuable insights, updates, upcoming events, and more from all our programs in one place.

Our goal is to provide you with information from the diverse programs to help promote youth development, and best management practices in gardening, natural resources

management, ranching, farming and food preservation all while enhancing sustainability and economic well-being.

Fadzayi Mashiri Ph.D.  
(County Director and Livestock and Natural Resources Advisor)

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Visit our website at <https://cemariposa.ucanr.edu/>

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## Regenerative Agriculture

### Financial Resources, Cover Crops, and Program Development Updates

It has become exceedingly clear to me that there is an interest in sustainable land management and in farming as a livelihood in Mariposa. Numerous individuals I have connected with thus far have expressed a need for financial assistance in starting up operations or getting help in resource acquisition. If you are thinking about integrating some practices into your farm that are considered a regenerative practice such as compost, cover crops, hedgerows, agroforestry, animal integration, etc., and you are looking for funding options, there are a few programs out there that could help.



#### Legumes

- Nitrogen Fixing
- Low C:N ratio
- Recycles nutrients
- Increases microbial activity
- Increases soil porosity
- Breaks pest cycles
- Increases soil ph



#### Grasses

- Holds onto Nitrogen
- Scavanges nutrients
- reduces erosion
- supresses weeds
- increases Soil Organic Matter
- higher C:N ratio



#### Brassicas

- Supresses soil pests
- Breaks up soil compaction
- improves water infiltration
- reduces erosion
- supresses certain weeds
- breaks certain pest cycles
- Moderate C:N ratio
- Provides polination services

[Read More](#)

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## 4-H Youth Development Program



### Celebrating National 4-H Week

As National 4-H Week 2024 kicks off from October 7th to 12th, Mariposa County is gearing up to celebrate the profound impact of this century-old youth development program. This year's theme, "Beyond Ready," highlights the readiness of 4-H youth to tackle the challenges of the future with confidence and resilience.

The 4-H program, which began over a century ago, has its roots in agricultural education with the formation of youth clubs aimed at introducing innovative farming practices. The first official 4-H club was established in 1902 by A.B. Graham in Clark County, Ohio, initially known as a Tomato Club or Crown

Growing Club. Mariposa County 4-H programs began later, in 1949, and have been in continuous service to the community for 75 years this year.

[Read More](#)



## 4-H Updates

This quarter, the Mariposa 4-H Programs have completed the culminating event of the year, which is our County Fair. More than 250 animals were entered into the Fair and 162 were sold at auction. Members also entered numerous items, such as: crochet projects, photos, and much more. Photos that I took at the event can be seen here: <https://photos.app.goo.gl/8Lraju1v4nnw2per5>

Read  
More

## Mariposa County 4-H Invites You to the 10th Annual Field of Service



Your invitation to participate in  
**MARIPOSA'S HEALING FIELD**  
November 10-17th, 2024

Mariposa County's 10th Annual  
**FIELD OF SERVICE**  
**PAST and PRESENT**  
**REMEMBERING \* HONORING \* HEALING**

*Honoring all those who've served,  
and all those we love. Paying tribute to all  
military, law enforcement, fire personnel,  
first responders, and special people in our lives.*

Proudly coordinated by the Mariposa County 4-H Citizenship Project  
Hornitos 4-H Club and Hornitos Patrons Club

Proceeds to be donated to the  
American Legion Post 567,  
Veterans Foreign Wars Post 6042,  
and the Mariposa Museum and History Center

 A Program Of  
COLONIAL FLAG®

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 CITIZENSHIP



I pledge...

**My Head** 💡

To clearer thinking

**My Heart** ❤️

To greater loyalty

**My Hands** ✋

To larger service

**My Health** 🍏

To better living

For my club, my community, my country and my world.



## Master Gardener Program

### Cool Season Crops

**Dreading Those Winter Blues? Turn Them...Green!**

By Lisa Morgan, UCCE Mariposa County Master Gardener

As we come into Fall, then Winter, we can often feel less inspired to be in the garden. The pivot to Fall and Winter chores seem daunting. Splitting wood, brushing, the snow and hunkering down for winter. But wait, how about a Fall/Winter Garden? There ARE things that can grow during the upcoming seasons. They may need slightly different attention but once they are going, they do well with less watering than summer. On average, you can water once or twice a week to keep your soil moist. Here are some additional tips or ideas to turn those winter blues into a lush green garden.

### 2 valuable community programs from the UCCE Master Gardeners of Mariposa County



#### The Seed Library

The UCCE Master Gardeners of Mariposa County in conjunction with the Mariposa County Library have a Seed Library that offers home gardeners access a variety of flower, herb and veggie seeds. There is a card catalog next to the entrance to the children's room. You simply take the provided envelope and a few seeds from the packs you are interested in, jot down some notes and plant them when the season is right!



#### Plant A Row

The UCCE Master Gardener Plant-a-Row program collects excess produce from growers, vendors, & home gardeners. Produce is donated to local organizations within Mariposa County that directly serve those in need: seniors, children, and those without access to fresh fruits & vegetables. Grow an extra row in your garden to help combat food insecurity!

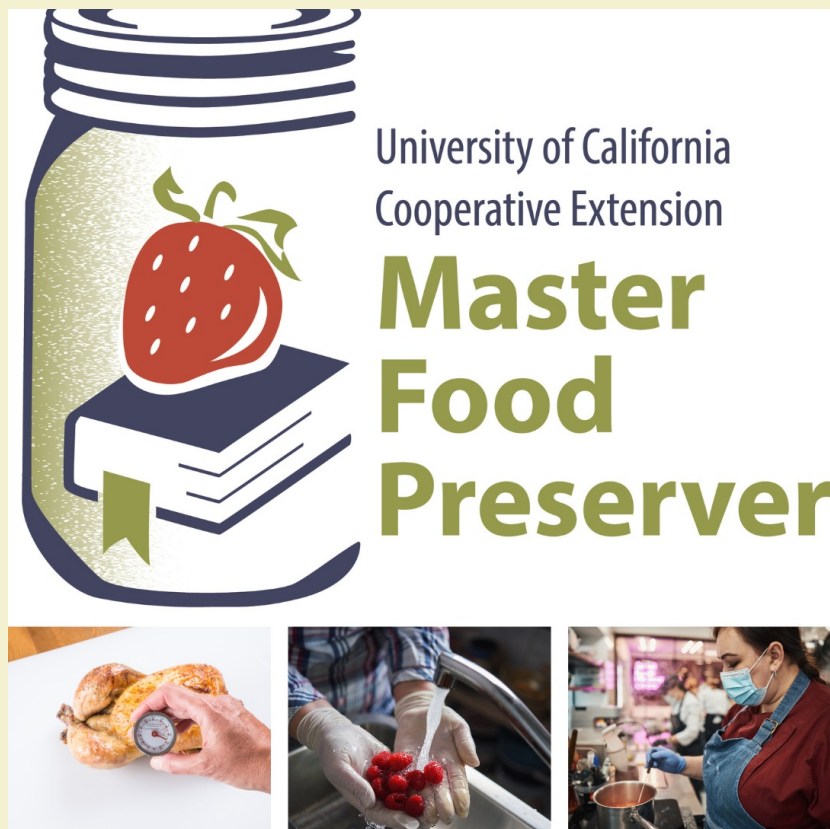


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UCCE Mariposa County  
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Agriculture and Natural Resources UCCE Master Gardener Program

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## Master Food Preserver Program



### Food Safety - Do You Know How to Keep Your Family Healthy?

By Michele Nowak-Sharkey, UC Master Food Preserver of Mariposa County

The opportunity to take an active role in preventing foodborne illness, also known as “food poisoning.” The Federal government estimates that there are about 48 million cases of foodborne illness annually – that’s about 1 in 6 Americans each year. Each year, these illnesses result in an estimated 128,000 hospitalizations and 3,000 deaths. Following simple food safety tips can help lower your chance of getting sick.

[Read More](#)

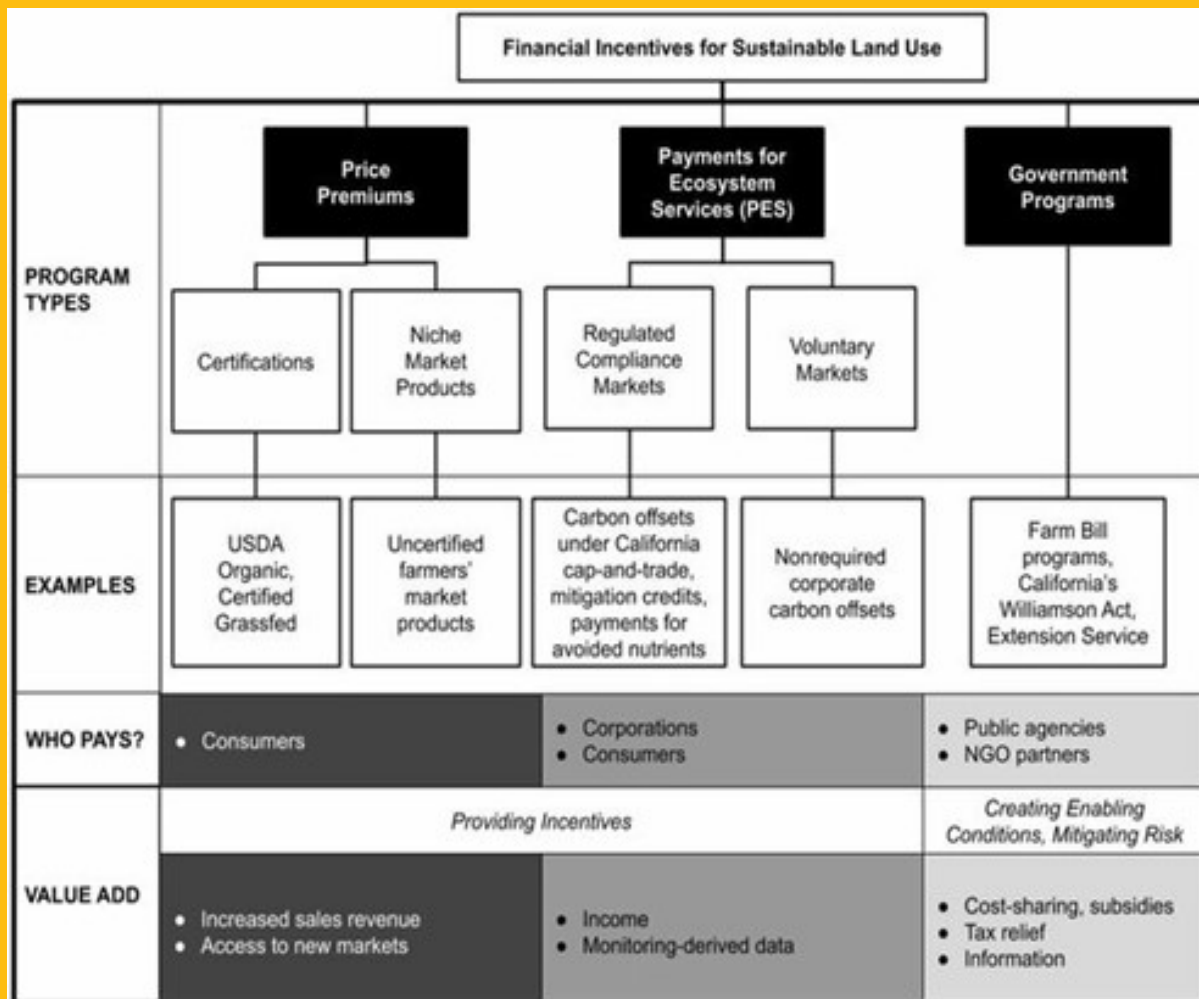
## Livestock and Natural Resources

[Payment for Ecosystem Services: A Growing Opportunity for Land](#)

# Managers

Interest in payment for ecosystem services (PES) and sustainable land management practices is on the rise. As illustrated in the diagram below (from [Buckley Biggs et al, 2021](#)), landowners and managers have a variety of options to choose from in order to enhance financial benefits through strategies that promote sustainability, climate resilience, and productivity.

Recent research involving interviews with ranchers reveals a strong interest in adopting conservation practices. Participants highlighted their conservation management goals, which include protecting vital ecosystem services such as biodiversity, clean water, and healthy soils, as well as preventing rangeland conversion to development and ensuring the preservation of these landscapes for future generations. However, when it comes to levels of compensation for these ecosystem services that could incentivize them to put effort, time and investment into implementing conservation practices, ranchers indicated a wide range of acceptable payment - from \$3 to \$80 per metric ton of carbon. This variability underscores the complexity of valuing ecosystem services and the need for tailored compensation strategies.



*Public and private sector policies supporting sustainability on rangelands. Source: Based on payments for ecosystem services categories developed by Forest Trends & Ecosystem Services Marketplace (2008), Goldstein et al. (2011), and Salzman et al. (2018). (From Buckley Biggs et al, 2021)*

[Read More](#)

## Highly Pathogenic Avian Influenza Detected in California Dairies

By Gaby Maier, DVM, PhD, DACVPM

UC ANR Beef Cattle Herd Health & Production Professor of Cooperative Extension



(UC Davis)

What happened? The California Department of Food and Agriculture (CDFA) announced in a press release on August 30th, 2024 that highly pathogenic avian influenza (HPAI) was detected in three dairies in the Central Valley. The outbreak of this flu virus in dairy cattle was first reported in the Texas panhandle in the spring of this year after several dairy herds had cows become sick with an unidentified illness. The affected cows were lethargic, had a fever, some had clear nasal discharge, diarrhea or dry feces, dropped in feed consumption and milk production, and most remarkably shed thick, colostrum-like milk. Most of the affected cows recovered after a couple of weeks, but their milk production did not reach the same levels as before they became ill. Veterinarians were unable to determine the cause of these outbreaks for some time, but dead birds on the dairies and cats with neurological signs finally raised the suspicion for avian flu. Cats and other mammals often become neurological when infected with HPAI and cats on dairies become infected when drinking raw milk. Samples collected from affected cows indeed came back positive for HPAI and since then, dairy herds in multiple states across the U.S. have tested positive for the virus. For a current and historical overview of affected states go to the United States Department of Agriculture (USDA) dashboard. As of September 3rd, 2024, a total of 14 states have diagnosed cases in 197 herds.



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More](#)

**SAVE THE DATE: CAL PAC FALL MEETING -**





# CAL PAC FALL MEETING

## NOVEMBER 14-15, 2024

Mark your calendar now for our Fall Meeting in Salinas, CA! Banquet November 14th, 6:00pm-8:00pm.  
Meeting November 15th, 9:30am-4:30pm. Details and registration will be in upcoming newsletter.

### 1 AWARDS BANQUET AND SILENT AUCTION

### 2 PRESENTATIONS

### 3 BUSINESS MEETING

### 4 2026 PLANNING

#### PRESENTATION TOPICS

- Effects of ground squirrels on forage availability
- Oak tree regeneration/mortality
- Rangeland sustainability assessment
- Grazing to increase wildlife species
- Cultural history and ranching
- Ranchers Experiences



#### SILENT & LIVE AUCTION

Bring items for our silent auction and bid on "The Bone" to support students to attend SRM Annual Meetings and compete!



#### STATE OF CAL PAC

We will have a business meeting luncheon to update membership on the state of Cal Pac



#### 2026 PLANNING

Join us as we kick off planning for the 2026 Annual meeting to be held in Monterey!

<https://calpacsrn.org>

Click [here](https://calpacsrn.org) for more info and registration

## Updates from the UCCE Mariposa Fire Team

### YOSEMITE GATEWAY PRESCRIBED BURN COOPERATIVE

Yosemite Gateway Prescribed Burn Cooperative (YGPBC) is a group of local landowners,

community members, community-based organizations, and agency partners working together to conduct prescribed burns throughout Mariposa and Madera Counties. We bring people together to conduct prescribed burns by pooling resources, assisting with planning, permitting, prep work, and implementation, and providing training opportunities. Visit our website [www.YosemiteGatewayPBC.com](http://www.YosemiteGatewayPBC.com) and follow us on social media at @YosemiteGatewayPBC to learn more about our work.



## LOOKING FORWARD TO BURN SEASON 2024-2025

We are gearing up for burn season and have been busy conducting site visits and covering piles to burn this spring. We are excited to assist several landowners across Mariposa and Madera County complete their pile and broadcast burn projects! ***Anyone and everyone is always welcome to participate and learn more about prescribed burning. If you would like to receive updates about upcoming events, trainings, and workshops, join our mailing list by completing a survey at [www.bit.ly/YGPBC\\_SignUp](http://www.bit.ly/YGPBC_SignUp).***

## WOMEN'S INTRO TO CHAINSAWS TRAINING

YGPBC is partnering with The Nature Conservancy and Sierra Foothill Conservancy to bring a Women's Intro to Chainsaws Course to Mariposa County! This free class will be held on October 19th and 20th. Although we reached our cap of twenty



participants in the class within the four days after registration opened, we would love to demonstrate a large need for this type of training so we can continue to offer it in the future. Please email Laura Wisdom at [lwisdom@ucanr.edu](mailto:lwisdom@ucanr.edu) to join the waitlist.



## WILDFIRE READINESS WORKSHOP

On August 17th, we organized a workshop to share information about wildfire readiness with homeowners in Mariposa and Madera Counties about steps they could take to prepare for wildfire and increase their home's wildfire resistance. Presentations included information about home hardening, defensible space, evacuation preparedness, and Firewise community recognition.



[Read More](#)

## SCIENCE ON TAP

We are continuing to partner with The Local Grape to host a monthly Science on Tap series! Science on Tap brings regional scientists together with our community members to share the joy and urgency of discoveries--from the outermost reaches of space and time, to the everyday laboratory in our backyards. These public talks begin at 5:30 PM, followed by a short reception and ample time for question and answer or workshop sessions.

Join us on October 14th for our upcoming Science on Tap featuring Dr. Beth Scaffidi presenting about "Mummies Unwrapped: Science Behind the Stories Mummies Tell."

To receive updates on upcoming Science on Taps, please email Alison Deak at [aldeak@ucanr.edu](mailto:aldeak@ucanr.edu) to join our email list

The Local Grape  
Mariposa, CA

# SCIENCE ON TAP

featuring Dr. Beth Scaffidi

**October 14<sup>th</sup>**

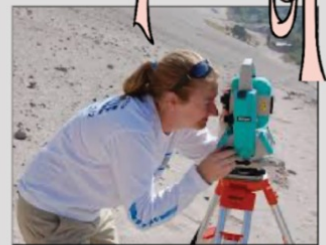
Address: 5021 CA-140, Mariposa

**Public talks begin at 5:30 PM**

followed by a short reception and ample time for Q&A. **Admission is free.**

### **MUMMIES UNWRAPPED: Science Behind the Stories Mummies Tell**

From ancient Egypt to the many frozen mountaineers now being exposed by glacial retreat, mummified human remains have captured the human imagination. I introduce some of the most interesting natural mummies from prehistory: Ötzi the Iceman of the Swiss Alps, the oldest mummies in the world from the Chinchorro desert in north-coastal Chile, the 'beautiful children' or capacochas sacrificed by the Inca on Andean mountain peaks, human trophy heads from the Peruvian coast, and even the Yosemite mummies of local lore. I'll share how modern scientific techniques like ancient DNA, isotopic analyses, and even drug analysis from mummy hair is showing us who these individuals were, how they lived and died, and yielding warnings far more important than any mummy's curse.



Cheese boards and pizza will be available for purchase during the event from The Local Grape and Yosemite Pizza!

### **MISSION**

Science on Tap brings regional scientists together with Mariposa community members to share the joy and urgency of recent discoveries--from the outermost reaches of space and time to the everyday laboratory in our backyards.

## Woody Biomass and Forest Products





## **Innovative Wood Products Contribute to Healthier Forests and Carbon-Beneficial Forest Management in California**

Forests are natural carbon sinks and help maintain ecosystem balance by providing habitat to many plants and animals. However, California's forests have become more homogenous over the past one hundred years, making them more vulnerable to disturbances such as wildfires, drought, and insects. The state has established goals to treat one million acres of forest lands amid the increase in high-severity wildfires, however, traditional forest fuel reduction methods that aim to remove small trees and harvest residues have some drawbacks related to costs and the lack of market for these materials. It has become critical to investigate the role of developing a robust forest products market in reaching forest treatment goals.

[\*\*Read More\*\*](#)

### **POLICY BRIEF: California's Biomass Potential for Hydrogen Production**

#### **Executive Summary**

Low-carbon and carbon-negative fuels, such as hydrogen produced from agricultural

residues, woody biomass, and municipal solid waste (MSW) can help California achieve its greenhouse gas (GHG) reduction targets. Hydrogen production through biomass gasification is a mature technology. Biomass resources are promising in California, especially in the near term. California could meet 95% of its 2050 hydrogen demand by utilizing waste biomass. With California's fast-growing hydrogen market and abundant agricultural waste, forest biomass, and MSW, the state has the potential to lead in the clean hydrogen industry.



[Read More](#)

## Upcoming Events



**Welcome to the new  
4-H program year!**

Enrollment information can be found [HERE](#). The cost is \$40 per youth and \$20 per adult volunteer. The enrollment deadline for returning members is Nov. 15th, and Dec. 15th for new members.



University of California  
Cooperative Extension

**Master  
Food  
Preserver**

**Become a Master Food  
Preserver, it's more than  
just canning!**

Training classes begin in January 2025 and include virtual and in-person sessions. The application deadline is November 30th. Contact us to apply now!



**Save the date for California  
Tree  
School 2025!**

CA Tree School is a unique one-day event where forest landowners and community members can take multiple classes on foundational forest concepts and forest management. Mark your calendars today and look out for registration later this year!

**Please see our website for event registrations**

[Visit our  
Website](#)





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