Welcome from the California Climate & Agriculture Network!
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POLLINATOR

CULTIVATOR

FARM TOUR

SCHOLARSHIP

IN KIND
• The plenary sessions from 8:30 – 10:30am take place in the UC Conference Center Ballroom.

• The workshop breakout sessions happen in five rooms in the Conference Center and the nearby Alumni Center on the quad just northwest of the Conference Center (see map).

• The 10th anniversary celebration takes place in the Mondavi Center across the quad from the Conference Center.

Summit Hashtag: #CalCANsummit

@calclimateag

Bios for all speakers and moderators and a list of Summit participants can be found online here: http://calclimateag.org/summit-presenters/

WHAT YOU NEED TO KNOW:

We are pleased to serve breakfast and lunch catered by Magpie Café in Sacramento, featuring local and organic ingredients.

Instructions for connecting to UC Davis Guest Wireless:

1. On your mobile device, choose ucd-guest from your available wireless networks.

2. Click Connect to open a browser window and the Guest Registration page.

3. Select the Create a ucd-guest account (or Login with an existing ucd-guest account if you have already set one up).

4. Enter the information requested and click Register. You will receive an email and/or text message confirming your account.

5. Login to ucd-guest using the username and password included in your confirmation message.
8:00 – 8:30am  Registration & Continental Breakfast

8:30 – 9:00am  Welcome

Marking 10 Years of CalCAN Coalition Work (Ballroom)
Renata Brillinger, CalCAN Executive Director
Judith Redmond, Full Belly Farm
Dave Runsten, Community Alliance with Family Farmers (CAFF)
Susan Clark, Gaia Fund

9:00 – 10:00am  Leadership Award Presentations & Panel Discussion (Ballroom)
CalCAN will recognize five individuals for their demonstrated leadership in climate and agriculture science, policy and practice, and engage them in a facilitated panel discussion.

10:00 – 10:30am  Climate & Agriculture Policy: Vision & Action (Ballroom)
Jeanne Merrill, CalCAN Policy Director

10:30 – 11:00am  Break & Poster Session

11:00 – 12:30pm  Workshop Session #1
- Creative Financing Tools for Agricultural Conservation (Conference Room B)
- Protecting Ag Land, Protecting the Climate (Ballroom A)
- Rethinking the Nutrient Management Paradigm for Soil Health (Ballroom B)
- Getting the Most Out of California’s Climate Smart Agriculture Incentives Programs (Alumni Center AGR)
- Connecting California’s Climate & Agriculture Policies to Equity (Ballroom C)

12:30 – 2:00pm  Lunch & Poster Session

2:00 – 3:30pm  Workshop Session #2
- Groundwater Management Implications for Agriculture (Ballroom A)
- Triple Win: Manure Management Strategies on California Dairies (Conference Room B)
- The Many Forms of Nitrogen in Agriculture and the Environment (Alumni Center AGR)
- Managing Agroecosystems for Climate Resilience (Ballroom B)
- Technical Assistance as a Driver of Climate Smart Agriculture (Ballroom C)

3:30 – 4:00pm  Break

4:00 – 5:30pm  Workshop Session #3
- SWEEP & Other Successful Water Conservation Programs (Conference Room B)
- What It Takes On the Ground to Get Carbon Into the Ground (Ballroom A)
- Cutting Edge Soil Science (Alumni Center AGR)
- Climate Adaptation: What Can We Do to Keep Producers Producing? (Ballroom C)
- Lightning Talks (Ballroom B)

6:30 – 9:00pm  Celebrate CalCAN’s 10th Anniversary (Mondavi Center)
Tickets will be available at the door
Please join us for food, drink and the City of Trees Brass Band
WORKSHOP SESSION #1  ———————————————————————————     11:00am – 12:30pm

POLICY TRACK       |        PRACTICE TRACK       |       SCIENCE TRACK

CREATIVE FINANCING TOOLS FOR AGRICULTURAL CONSERVATION

This workshop explores innovative ideas for financing agroecological practices. You will hear about a pilot project to develop Conservation Incentives Loans that offer discounted interest rates to farmers who commit to in-field agricultural conservation practices, leveraging practical financial tools for climate change mitigation and adaptation. You will also learn about the role of federally-subsidized insurance in promoting climate-friendly practices and the opportunities and barriers for California producers. Join the presenters for a discussion of what financial tools are needed for encouraging conservation practices, what are most effective, and to identify the gaps and redundancies.

Speakers: Brett Melone, California FarmLink; Jeff Schahczenski, National Center for Appropriate Technology (NCAT)
Moderator: Sacha Lozano, Resource Conservation District of Santa Cruz

PROTECTING AG LAND, PROTECTING THE CLIMATE

Since 2015, the Sustainable Agricultural Lands Conservation Program (SALCP), with money from cap-and-trade revenue, has made almost $124 million in grants to permanently protect more than 90,000 acres of agricultural land as a climate strategy—more state funding than has been available in decades to stem the loss of valuable farmland. We will hear from program participants about their experiences with the program, what they’ve accomplished and learned, and what more is needed. We will also discuss how to engage a broader constituency on strategies to ensure the long-term viability of agriculture and agricultural resilience by advancing new frontiers in farmland conservation policies and program.

Speakers: Matt Freeman, Santa Clara Valley Open Space Authority; Michele Clark, Yolo Land Trust; David Bunn, Department of Conservation
Moderator: Kara Heckert, American Farmland Trust

RETHINKING THE NUTRIENT MANAGEMENT PARADIGM FOR SOIL HEALTH

Three researchers will present their complementary expertise in plant-soil-microbe interactions and nutrient cycling as it relates to soil health and climate mitigation and resilience. You will learn about nitrogen and carbon cycling in different growing conditions and how various management strategies can be optimized for productivity as well as climate and natural resources benefits. The practical challenges, tradeoffs and considerations of implementing these practices will also be addressed.

Speakers: Kabir Zahangir, USDA NRCS; Tim Bowles, UC Berkeley; Cristina Lazcano, California Polytechnic State University, San Luis Obispo
Moderator: Judith Redmond, Full Belly Farm

GETTING THE MOST OUT OF CALIFORNIA’S CLIMATE SMART AGRICULTURE INCENTIVES PROGRAMS

California’s relatively new Climate Smart Agriculture programs, funded by cap-and-trade revenues, are premised on the assumption that providing grants to growers for adopting new management practices will reduce GHG emissions. A similar approach is taken by federal farm bill programs and many state-level conservation programs. This panel will explore the effectiveness of this approach and identify ways to improve upon it. Are the Climate Smart Agriculture programs designed in ways that facilitate grower participation across California’s diverse agricultural landscape? What motivates growers to modify their practices and continue them beyond the length of the incentive payments?

Speakers: Kristin Sesser, Point Blue; Jessica Rudnick, UC Davis; Jeanne Merrill, CalCAN
Moderator: Vicky Dawley, Resource Conservation District of Tehama County

CONNECTING CALIFORNIA’S CLIMATE & AGRICULTURE POLICIES TO EQUITY

Climate change has a disproportionate impact on farmworkers, low-income rural communities and farmers of color as a result of historical injustice and disinvestment. Proactive and targeted policies and investments can address these inequities. How well are California’s Climate Smart Agriculture programs and other climate investments doing on this front, and what more is needed? What plans does CDFA have for implementing the Farmer Equity Act?

Speakers: Thea Rittenhouse, California Department of Food and Agriculture (CDFA); Teresa Andrews, Western Center for Agriculture & Health Safety at UC Davis; Kassandra Hishida, Community Alliance for Agroecology
Moderator: Gail Wadsworth, California Institute for Rural Studies (CIRS)
TRIPLE WIN: MANURE MANAGEMENT STRATEGIES ON CALIFORNIA DAIRIES — Conference Room B

Innovations in dairy manure management that result in drier, aerobic handling have three interrelated environmental benefits: reducing methane emissions, improving air and water quality, and producing aged manure and compost for building soil. In this session, you will hear from two dairy producers and one technical assistance provider about their experiences applying for grants from CDFA’s Alternative Manure Management Program, the benefits of the projects they’ve developed, and the challenges and barriers. You will also hear an update on the state’s future plans for regulating dairy methane emissions.

Speakers: Lynne McBride, California Dairy Campaign; Jana McClelland, McClelland’s Dairy; Jake Magneson, Magneson Dairy
Moderator: Mike Griffin, Organic Valley/CROPP Cooperative

TECHNICAL ASSISTANCE AS A DRIVER OF CLIMATE SMART AGRICULTURE — Ballroom C

Incentives for growers combined with technical assistance has been shown to be a powerful combination for accelerating widespread improvements in ecological management practices. With the passage of AB 2377, a CalCAN-sponsored bill, CDFA now has cap-and-trade funding available for technical assistance for its Climate Smart Agriculture programs. In addition, there are two other statewide technical assistance initiatives that will be described: a new UC Agriculture and Natural Resources Climate Smart Agriculture team, and a Farmer Demonstration Network.

Speakers: Rex Dufour, National Center for Appropriate Technology (NCAT); Doug Parker, UC California Institute for Water Resources; Karen Buhr, California Association of Resource Conservation Districts
Moderator: Dave Runsten, Community Alliance with Family Farmers

MANAGING AGROECOSYSTEMS FOR CLIMATE RESILIENCE — Ballroom B

With increased climate variability and associated changes in resource availability, there is a recognition that we need to manage agroecosystems for resilience—the ability to recover in response to a disturbance or climate event. The focus of this session is to provide guidelines on how to move beyond resilience as a concept, and operationalize it in our agroecosystems. This session will stress three ideas: (1) the key building blocks of resilience; (2) the vulnerability of these building blocks in a variable and changing climate; (3) the strength and limits of management tools to foster resilience in agroecosystems.

Speakers: Amélie Gaudin, UC Davis; Caitlin Peterson, UC Davis; Valerie Eviner, UC Davis
Moderator: Jo Ann Baumgartner, Wild Farm Alliance

THE MANY FORMS OF NITROGEN IN AGRICULTURE AND THE ENVIRONMENT — Alumni Center AGR

The use of nitrogen fertilizers on agricultural soils can be a source of nitrogen oxide (NOx) gases contributing to air pollution and health impacts. Application of fertilizers can also contribute nitrous oxide emissions, a potent greenhouse gas. This discussion will explore research findings and gaps regarding the connection between nitrogen fertilizers, air quality and climate change, the impacts on Central Valley communities, and the policies necessary to address these challenges. Speakers represent the perspectives of the California Air Resources Board, an environmental justice advocate from the Central Valley, and a representative from agriculture.

Speakers: Mike FitzGibbon, California Air Resources Board; Genevieve Gale, Central Valley Air Quality Coalition; Noelle Cremers, California Farm Bureau Federation
Moderator: Ann Thrupp, Down-to-Earth Innovations

GROUNDWATER MANAGEMENT IMPLICATIONS FOR AGRICULTURE — Ballroom A

The implementation of the State Groundwater Management Act (SGMA) is expected to have significant implications for agriculture. We will hear from experts in the field on the latest with SGMA implementation, including the early discussions of groundwater management plans, and next steps for farmers wanting to engage in these conversations.

Speakers: Kelly Peterson, Butte County Water and Resource Conservation Department; Keith Wallace, California Department of Water Resources; Stacie Ann Silva, New Current Water & Land LLC.
Moderator: Helen McGrath, Ditch Ranch & Flying M Ranch
WORKSHOP SESSION #3  
4:00pm – 5:30pm

POLICY TRACK  |  PRACTICE TRACK  |  SCIENCE TRACK

SWEEP & OTHER SUCCESSFUL WATER CONSERVATION PROGRAMS  
Conference Room B

CDFA’s State Water Efficiency & Enhancement Program (SWEEP) has distributed more than $62 million in grant funds from money raised through the cap-and-trade program to more than 600 farmers to reduce energy use and increase water use efficiency. In this workshop, irrigation and extension experts will take stock of the strengths and accomplishments of SWEEP, as well as areas for improvement. They will also highlight the early successes and lessons learned from new local water conservation investments made by Resource Conservation Districts and Irrigation Districts.

Speakers: Daniele Zaccaria, Cooperative Extension at the Department of Land, Air and Water Resources of University of California, Davis; Miguel Garcia, Napa County Resource Conservation District; Ruth Dahlquist-Willard, UC Cooperative Extension

Moderator: Brian Shobe, CalCAN

WHAT IT TAKES ON THE GROUND TO GET CARBON INTO THE GROUND  
Ballroom A

California made its first Healthy Soils Program grants in 2018 when cap-and-trade funds were first allocated, based on science showing that carbon sequestration can be achieved using farming practices such as composting and mulching, cover cropping, conservation plantings, prescribed grazing and more. But how does the program and shifting to these practices actually work on our farms and ranches? Three producers will share their experiences with the Healthy Soils Program, the challenges of shifting to new soil management practices and the benefits they are seeing in their operations.

Speakers: Ellee Igoe, Solidarity Farm and SD Carbon Sink Farms; Blake Alexandre, Alexandre Family Farm; Tanya Gemperle, Edelweiss Nut Co.

Moderator: Sara Tiffany, Community Alliance with Family Farmers

CUTTING EDGE SOIL SCIENCE  
Alumni Center AGR

The science of soil health, climate change and carbon sequestration is complex and rapidly developing. This is your chance to get an overview of the current state of the research helping inform the policy decisions aimed at incentivizing practices that increase carbon sequestration and decrease greenhouse gas emissions. We will also cover the important question of soil testing metrics and resources for farmers by hearing about a landscape analysis of soil organic carbon measurement tools.

Speakers: Charlotte Decock, Cal Poly San Luis Obispo; Jessica Chiartas, UC Davis; Becca Ryals, UC Merced

Moderator: Jane Sooby, CCOF

CLIMATE ADAPTATION: WHAT CAN WE DO TO KEEP PRODUCERS PRODUCING?  
Ballroom C

Climate change is already impacting farms and ranches in a variety of ways. What do farmers and ranchers need to survive the next drought, heat wave, or other record-setting weather event? What does the next generation of producers need to still be farming in 2050 and beyond? Come hear the latest in what science says we can expect in the face of climate change as well as stories about impacts farmers and ranchers are already experiencing. Join us for a participatory discussion about how the state should be supporting and investing in climate adaptation for agriculture to keep farmers on the land and prosperous.

Speakers: Eric Larson, San Diego County Farm Bureau; Tapan Pathak, UC Merced Cooperative Extension; Adam Cline, Yocha Dehe Farm & Ranch

Moderator: Wendell Gilgert, Point Blue Conservation

LIGHTNING TALKS  
Ballroom B

This session will feature a smorgasbord of innovations in the arena of sustainable agriculture and climate change. Speakers will present their projects using short, compelling "lightning talks" designed to inspire and communicate their core ideas.

- Can seaweed reduce methane emissions from cattle? Ermias Kebreab, UC Davis
- Reducing tillage on organic farms: Farmer-led research Cynthia Daley, California State University, Chico Organic Dairy Program
- The benefits of beaver stewardship to California agriculture and rangelands Kate Lundquist, Occidental Arts & Ecology Center WATER Institute
- The power of visual storytelling to educate, inspire and drive change in our food system Oliver English, Common Table Creative
- From research to tools: How the California Climate Hub supports climate-smart agriculture Lauren Parker, UC Davis
- An uncertain future of first-generation ranchers Kate Munden-Dixon, UC Davis
- State-of-the-art climate smart farmworker housing Alexandra Alvarado, Mutual Housing California
- Agriculture is green infrastructure: Blazing the trail on land use planning and funding in San Jose Andrea Mackenzie, Santa Clara Valley Open Space Authority

Moderator: Anthony Chang, Kitchen Table Advisors
CalCAN is pleased to recognize the following individuals for their contributions to the field of climate and agriculture policy, practice and science.

**FARMER/RANCHER**
Ward & Rose Marie Burroughs
Burroughs Family Orchard

**AGRICULTURAL PROFESSIONAL**
Ruth Dahlquist-Willard
UC Cooperative Extension, Fresno & Tulare counties

**POLICYMAKER**
Ken Alex
Former Director of Governor Brown’s Office of Planning & Research

**LEGISLATIVE STAFF**
Brett Williams
Office of Assemblymember Jacqui Irwin

**RESEARCHER**
Tapan Pathak
UC Cooperative Extension, Merced

The California Climate and Agriculture Network (CalCAN) is a statewide coalition that advances policy reforms to realize the powerful climate solutions offered by sustainable and organic agriculture. Since 2009, we have cultivated farmer leadership to face the challenges of climate change and to serve as the sustainable agriculture voice on climate change policy in California.

**COALITION MEMBERS**
California Certified Organic Farmers (CCOF), California Farm Link, Center for Food Safety, Community Alliance with Family Farmers, Ecological Farming Association, Occidental Arts and Ecology Center, Wild Farm Alliance