Climate Smart Agriculture

Policy & Practice

California Climate & Agriculture Network (CalCAN)
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CalCAN advocates for state and federal policies that advance agricultural solutions to climate change.

We collaborate with farmers and ranchers, agriculture professionals, researchers, advocates and policymakers.
Climate Impacts: High Stakes

- Drought & water scarcity
  *(542,000 acres fallowed in 2015 and estimated $1.84 billion loss)*

- New pests & diseases

- Erratic & extreme weather events

- Decreased chill hours

- Subsidence *(up to 2 inches/month)*

- Environmental & economic justice
  *(>21,000 jobs lost in 2015)*
What is Climate Smart Farming?

**Soil building**
- Improved water and air quality
- Improved fertility
- Improved water retention

**Wildlife habitat & agroforestry**
- Sequester carbon in plants
- Habitat for pollinators and beneficial insects
- Improved watershed health

**Water, energy conservation & renewable energy**
- Reduced dependency on unsustainable, unreliable or scarce sources of water and energy
- Savings for growers

**Farmland conservation**
- Food security
- Rural economic viability
- Wildlife habitat & open space
- Water catchment (drought resilience)
Global Warming Solutions Act of 2006 (AB 32)

- Establishes an ambitious GHG emissions reduction goal
- Includes a cap-and-trade program
- Largest emitters of GHGs must pay into a Greenhouse Gas Reduction Fund to incentivize voluntary emissions reductions

Higher 2030 and 2050 targets are being debated now. We cannot reach these goals without agriculture.
California as a Leader

- Most comprehensive cap-and-trade program in the U.S.
- Launched a program to fund permanent protection of farmland because it reduces GHG emissions
- Attempting to integrate smart growth use planning with farmland protection
- Addresses equity in program design
- In 2016 (hopefully), funding will be available to incentivize farming practices that build soil

March 2015 drought map
Greenhouse Gas Reduction Fund

Climate Smart Agriculture Programs
FY 2015-16: $60 million
FY 2016-17: Proposed $115 million

Sustainable Agricultural Lands Conservation Program (DOC)
- Farmland conservation

State Water Efficiency Enhancement Program (SWEEP) (CDFA)
- On-farm water conservation

Short-Lived Climate Pollutants (CDFA)
- Methane reduction on Dairies

Healthy Soils Initiative (CDFA)
- Soil building for GHG reductions and carbon sequestration
Farmland Conservation

Sustainable Agricultural Lands Conservation Program (SALC)

• Funds planning grants and easements on farmland

• Projects must demonstrate avoided emissions from sprawl or rural ranchette development

• Funding in 2015: $5 million

• Funding in 2016: $40 million
On-Farm Water Conservation

State Water Efficiency Enhancement Program (SWEEP)

- Funds on-farm water conservation (e.g., soil moisture monitoring, pump and irrigation improvements)
- Funded $20 million for 200 projects since 2014; proposed $20 million in 2016-17
- Estimated water savings = 12.2 billion gallons/year
- Estimated GHG savings = 11,278 Tonnes CO2e/year (equal to taking 2,374 passenger vehicles off the road)
- Improvements to program: Grower access; Soil building practices
Short-Lived Climate Pollutants

- Methane is a SLCP (30x more potent than CO2)
- Half of California’s methane is dairies and livestock
- State is drafting a plan to cut SLCP emissions
- Governor’s budget proposes $35 million for anaerobic digesters on dairies
- CalCAN is advocating for $5 million carve out for alternative manure management strategies and pasture-based dairies
Healthy Soils Initiative

- Governor Brown proposed $20 million for 2016-17
- CDFA has launched the HSI, though there is no $$ yet, and the program design is still underway
- May include funding for demo projects, incentives for soil-building activities, technical assistance, etc.
- Emphasis on co-benefits:
  - Carbon sink
  - GHG reductions
  - Water retention and reduced erosion
  - Nutrients for higher yields
  - Biodiversity
- SB 1350 (Senator Wolk): Call or email your Senator (Bill Monning?) to support!
Resources

CalCAN Resources:
www.calclimateag.org

- Diversified Strategies for Reducing Methane Emissions from Dairy Operations
- SWEEP Progress Report
- CalCAN website (sign up for newsletter & blog)

SWEEP:
https://www.cdfa.ca.gov/oefi/sweep/

Healthy Soils Initiative:
http://www.cdfa.ca.gov/EnvironmentalStewardship/HealthySoils.html

Sustainable Agricultural Lands Conservation Program:
http://sgc.ca.gov/s_salcprogram.php
Partnerships

Farmer Leaders

Advocates & Educators

Scientists & Ag Professionals

Policymakers (Governor, legislators, agency staff)
Thanks!

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