

Climate Change Policy Tools for Agricultural Resilience



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California Climate & Agriculture Network (CalCAN)

CalCAN at a Glance

Mission: CalCAN serves as the only California sustainable agriculture voice on state and federal climate change policy

Goal: We seek resources for and remove barriers to agricultural climate change solutions

Strategies: We cultivate farmer leadership, build a network and advance policy initiatives



Impacts of Climate Change

Agronomic impacts:

- Intensified drought/flood cycles
- Erratic & extreme weather events
- New pests & diseases
- Decreased chill hours
- Subsidence



Economic, health and justice impacts:

- Reduced yields
- Job losses
- Farmworker health (heat stress)
- Food access/costs
- Public health



Multiple Benefits of Climate-Resilient Farming

Soil building

- Reduced reliance on chemical inputs—**improved water and air quality**
- Improved fertility; soil carbon sequestration
- **Improved water retention (soil acts as reservoir)**

Biodiversity & conservation planting

- 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**)



California's Climate Target

Assembly Bill 32 (in 2006): Set a goal to reduce GHGs to 1990 levels by 2020

Senate Bill 32 (in 2016): Set a goal to reduce GHGs to 40% below 1990 levels by 2030



Governor Jerry Brown



Former Senator Fran Pavley



Assemblymember Eduardo Garcia

Greenhouse Gas Reduction Fund



Over \$3 billion allocated to date;
Almost \$190 budgeted for “climate smart agriculture”

Climate Smart Agriculture Funding

Four programs:

1. Sustainable Agricultural Lands Conservation Program (SALC)
2. State Water Efficiency & Enhancement Program (SWEEP)
3. Healthy Soils Initiative
4. Dairy Methane Reduction



Funding to date (approx.):

2014-15 total = \$27 million

2015-16 total = \$70 million

2016-17 total = \$92.5 million



CDFA Secretary Karen Ross

Sustainable Ag Lands Conservation

Objective: To protect agricultural lands at risk of development



\$42.5 million spent to date (plus \$7.5 million budgeted this year)
for permanent easements on ag land & planning grants

In Napa County = almost \$3.8 million to protect 11,193 acres

State Water Efficiency & Enhancement Program

Objective: To reduce on-farm water & energy use



\$67.5 million spent/budgeted to date

In Napa County = only \$181,000 for 3 projects

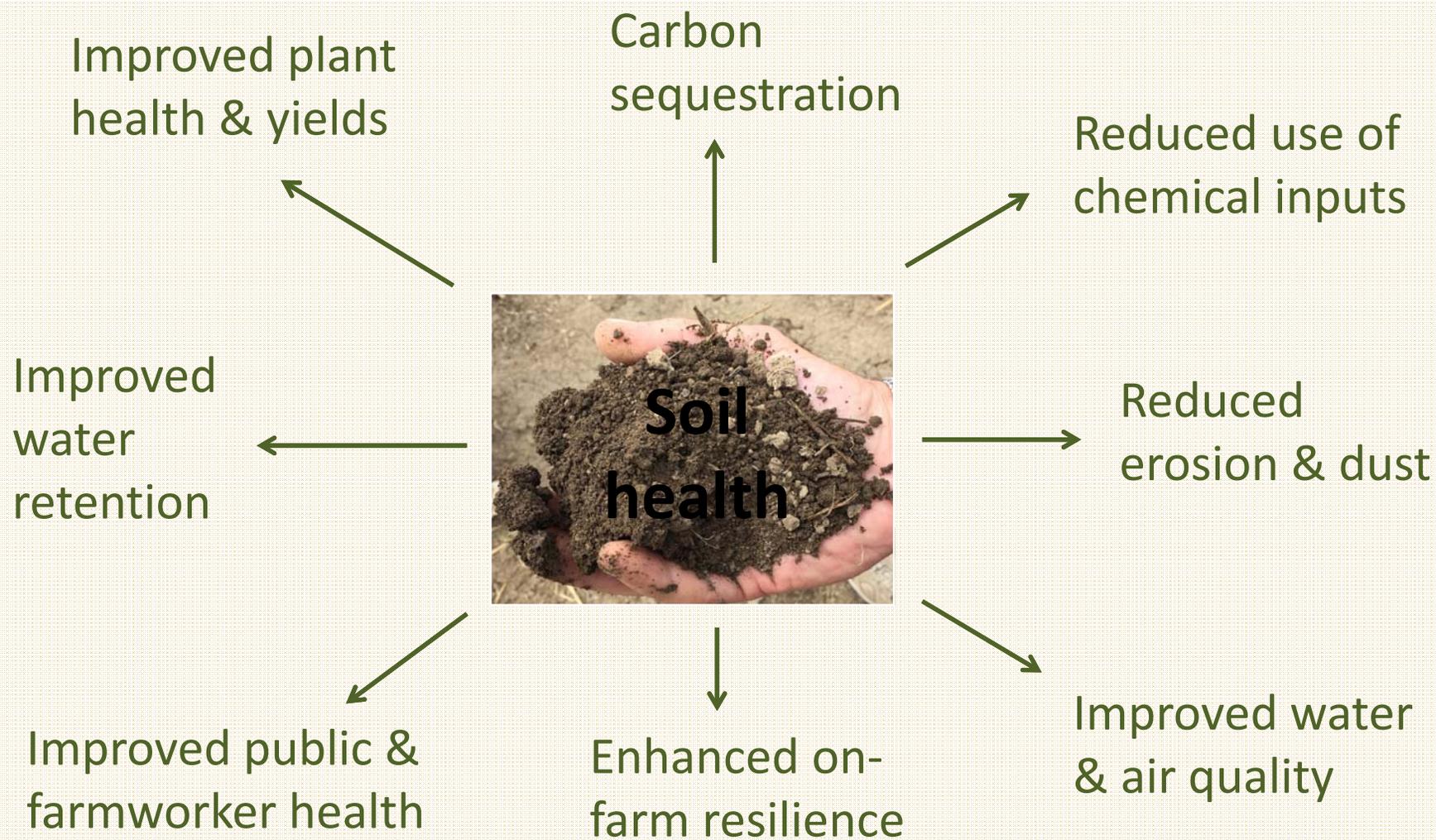
Healthy Soils Initiative

Objective: To build soil carbon and reduce agricultural GHG emissions through incentives



\$7.5 million in 2016-17
for incentives & demonstration projects

Multiple Benefits of Healthy Soils



Eligible Practices (probably)

- Mulching
- No-till & reduced-till
- Cover crops
- Compost application on cropland and grassland
- Herbaceous cover (e.g., field borders, riparian plantings, wind barriers, etc.)
- Woody plantings (e.g., riparian forest buffer, hedgerows, silvopasture, windbreaks, etc.)



Cap-and-Trade Future



Recommendations for Napa

To enhance agricultural resilience & mitigate climate change:

- Improve agricultural water use efficiency
- Enhance on-farm biodiversity
- Increase soil health
- Conserve farmland & open space to limit sprawl
- State policy advocacy:
 - Cap-and-trade extension & budget
 - Farm Bill conservation programs
 - Fund research
 - Fund technical assistance



Thanks!



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