# Sustainable Agricultural Solutions to Climate Change



Jeanne Merrill California Climate & Agriculture Network www.calclimateag.org



#### Climate Change Impacts

Increased water scarcity

Crop yield reductions; shifting crop patterns

Increased /shifting pest & disease pressures

Reduced winter chill hours

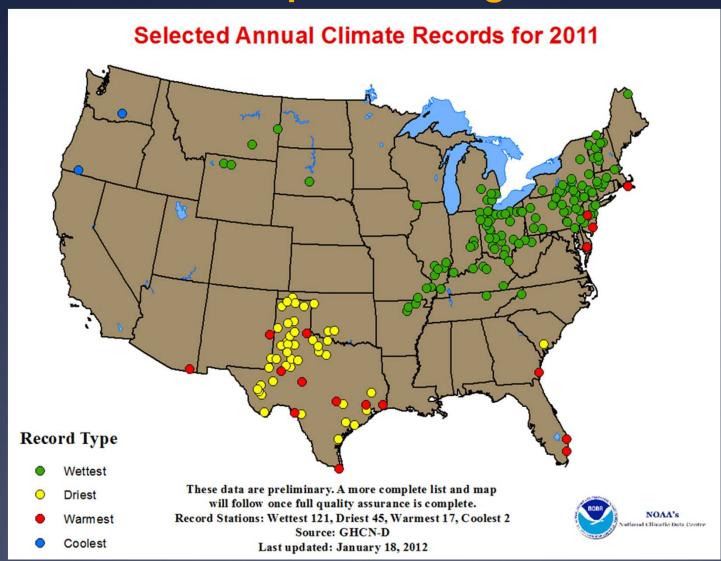
Heat stress for people and livestock

Erratic & extreme weather events





## Increases in Extreme Weather: Economic Impacts on Agriculture



## Sustainable Agricultural Solutions to a Changing Climate

- Build Soil Health
- Increase Biodiversity
- Reduce Off-farm Inputs
- Water Use Efficiency
- Organic Farming
- Farmland Protection





#### Ready...Or Not?

An assessment of California agriculture's readiness for climate change (March 2011)

Research

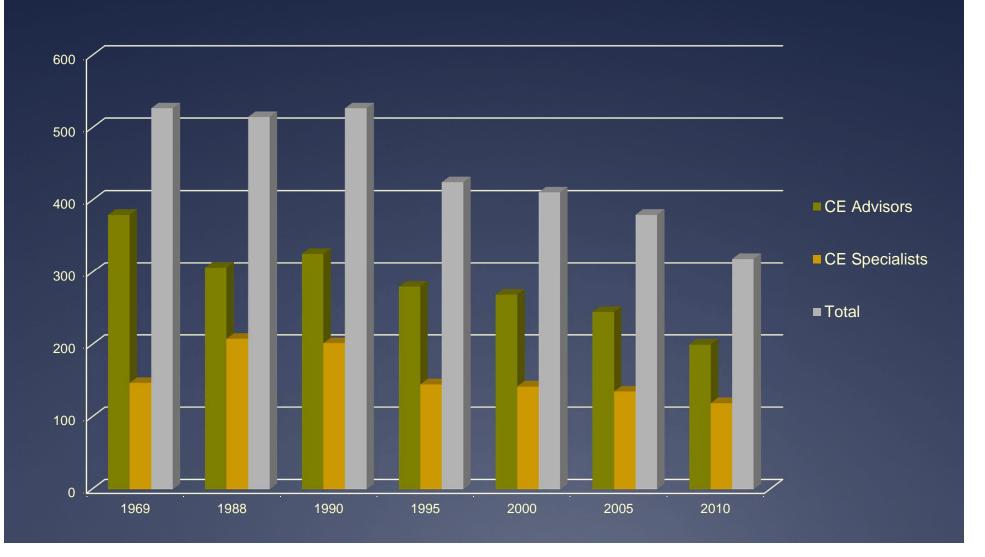
Since 2007, identified only <u>39</u> publicly funded research projects that focused on CA agriculture-specific climate mitigation and adaptation activities.

Direct Conservation Incentives

Unlike other states, CA lacks direct incentive programs for producers to adopt on-farm conservation programs.

Congressional cuts to USDA conservation programs

### **Technical Assistance**



# Supporting California Agriculture in Addressing Climate Change

- California-specific research on mitigation & adaptation solutions
- Technical assistance
  - Coop Extension
  - NRCS
  - RCD
  - Nonprofits
- On-farm conservation incentives:
  Whole farm approach
- Adequate, whole farm insurance







### California Climate & Agriculture Network



www.calclimateag.org

Jeanne Merrill • (916) 441-4042 • jmerrill@calclimateag.org