



Advancing Water Management in Merced County



Changes to the climate are impacting the already brief precipitation season in California, necessitating supplemental irrigation to support agricultural production in the state. Seth and Michelle Rossow utilized funds from the California Department of Food and Agriculture's [State Water Efficiency and Enhancement Program](#) (SWEEP) to purchase and install an improved irrigation system on their farm in Merced County. Seth and Michelle Rossow Farms now automate irrigation of tomato and bell pepper crops on their 175 acres of land. The automation mechanism on their existing sub-surface drip irrigation system utilizes newly installed soil moisture probes to alert workers when the crops need water. The new system thus conserves water by utilizing smaller quantities more frequently and directly to the crop root zones. By replacing an above-ground diesel-fueled sprinkler system, this automated irrigation technology is not only saving water, but reducing diesel emissions, conserving electricity, and saving money. Efforts to adapt to climate change by enhancing the water and energy efficiency of existing agricultural systems in this way are imperative components of a resilient future.



Image provided by the California Department of Food and Agriculture. Clockwise from top right: Drip system installed in a stone fruit orchard, drip system installed in a vineyard, microsprinkler system installed in a walnut orchard.

For more information about Safeguarding California and Climate Change Adaptation efforts in California, visit <http://resources.ca.gov/climate/safeguarding/>