

## Low-Emission Solutions Conference Poster Session

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University of San Francisco, McLaren Conference Center

Participants:

### **Jessica Chiartas, Nicole Tautges, Kate Scow, UC Davis**

#### *Digging Deeper: Identifying Agricultural Management Practices that Balance the Carbon Budget*

Soil organic matter dynamics operate on decadal time scales or greater, necessitating long-term experiments, across a diversity of landscapes to identify management practices that promote SOM accumulation. The Russell Ranch Century Experiment, provides a unique opportunity to track long-term impacts of nutrient management, irrigation, and crop rotations on sustainability in maize/tomato and wheat/fallow systems.

### **Allegra Mayer, Zeke Hausfather, Andrew D. Jones, Whendee L. Silver, UC Berkeley**

#### *The potential of agricultural land management to contribute to lower global surface temperatures*

Soil organic carbon sequestration through agricultural management could lower global temperature by 0.1°C in 2100 when combined with a low emission trajectory. The results of the research provide a framework for the potential role of agricultural soil organic carbon sequestration in climate change mitigation.

### **Robert de Ligt, The Mullion Group**

#### *FLINTpro - the next generation tool for land sector greenhouse gas reporting, analysis and visualization*

Software-as-a-Service FLINTpro is a next generation tool for land sector greenhouse gas estimation and reporting. FLINTpro provides a robust and operational framework for integrating the multitude of data types that are required to estimate emissions. Delivered as a secure cloud-based solution FLINTpro removes historical hardware limitations that typically arise from advanced model simulations.

### **Maegen Simmonds, Peter Nico and Alan Di Vittorio, Lawrence Berkeley National Laboratory**

#### *Landscape Carbon and Greenhouse Gas Modeling to Support Climate Change Mitigation Policy in California's Natural and Working Lands*

The California Natural and Working Lands Carbon and Greenhouse Gas Model (CALAND) simulates carbon-based greenhouse gas fluxes (CO<sub>2</sub>, CH<sub>4</sub>, and black C) across the entire California landscape, delineated by 15 land types, 9 eco-regions, and 9 ownership classes.

### **Jun Wong and Rory Jacobsen, UC Berkeley**

#### *Characteristics of a Low-BECCS path and Model Discrepancies*

An analysis using shared socioeconomic pathways helps model how a range of technologies using bioenergy with carbon capture and storage (BECCS) can advance global progress toward reaching 2-degree Celsius warming goals.