**CAL-Collaborative Organic Research and Extension Network**

**WHO ARE WE?**

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**Cal-CORE* network projects**

*California Collaborative Organic Research & Extension network*

### Project goals

1) Expand existing network of researchers, farmers, industry and non-profit organizations

2) Compare different crop rotations with varying management on:
   a) yield, weeds, diseases, pests
   b) soil N, nitrate leaching,
   c) C sequestration, greenhouse gas emissions
   d) economics of production;

3) Compare Anaerobic Soil Disinfestation (ASD), Mustard Seed Meal (MSM) and crop rotation for control of *Verticillium* wilt and other diseases

4) Improve pest management in strawberries & vegetables
   a) Improve biocontrol of lygus bug in strawberries;
   b) Improve biocontrol of cabbage aphid and diamondback moth in Brassica crops,
   c) Examine effect of fertility on incidence of cabbage aphid and diamondback moth in brassica crops.

5) Conduct Life Cycle Assessment (LCA) of strawberry/vegetable rotation systems
**Mother Trial - UCSC Farm**

Main Plots - Rotation length / sub-plots - crops:

• **2 year**
  
  • CC- Lettuce - Strawberry – CC - Lettuce - Strawberry
  
  • CC- Broccoli - Strawberry - CC- Broccoli - Strawberry

• **4 year**
  
  • CC-Lettuce-CC-Lettuce/Broccoli-CC - Lettuce - Strawberry

  • CC - Broccoli - CC - Lettuce/Caulif. - CC - Broccoli - Strawberry

Sub-sub plots - fertility and disease management strategy

a) Legume/cereal winter cover crop; ASD* (CC)

b) Legume/cereal cover crop + compost + Fert**; ASD* (CC+C+F)

c) Untreated control/bare winter fallow (BF)

d) Cereal winter cover crop + Mustard Cake (CC+MC)

* Anaerobic Soil Disinfestation before strawberry
** Fertility amendment based on PresidedressNitrateTest

**Baby Trials - at 6 farms**

4 year rotation only, broccoli-based, all fertility/disease management treatments plus grower standard practices. Unreplicated.

• CC-Broccoli - CC- Lettuce/Caulif.- CC - Broccoli - *Strawberry