
Since 2012, DPR has funded approx. $2.8 million in research grants and other projects to advance soil fumigant alternatives. The Nonfumigant Strawberry Working Group (2012-13) and Soil Health Symposium (2014) helped to identify promising research directions and data gaps that are being addressed by our grant and contract work (8 research grants, 2 research contracts, and 1 alliance grant).

Breakdown by crop (number of projects) All projects are 3-years in duration
Primary fumigant alternative (Principle Investigator-year started)

• **Strawberry (5)**
  - Soilless substrate (Legard-2012)
  - Anaerobic Soil Disinfestation (ASD), Cover crop – strawberry nursery (Epstein-2013)
  - ASD, Mustard seed meal, reduced fumigant rates (Legard-2014)
  - ASD demonstration and adoption (Farm Fuel-2013)
  - Steam (Fennimore-2014)

• **Cole Crops - Broccoli, Brussel sprouts (1)**
  - ASD, mustard seed meal, cover crop, IPM (Shennan-2013)

• **Almond/Stone fruit (2)**
  - Spot fumigations, bioassays, IPM (Browne-2013)
  - Different rootstocks, row v spot v non-fumigated (Doll-2014)

• **Pistachio (1)**
  - Different rootstocks, fumigated v non-fumigated soil (Doll-2014)

• **Pre-plant soil treatment (1)**
  - Solarization (Stapleton-2014)

• **Multiple-crops: Fumigant alternative meta-analysis (1)**
  - Literature meta-analysis (Grieneisen-2013)