

SUMMARY – DPR Funded Soil Fumigant Alternative Projects 10.1.2014

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)**
 - Soiless 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)