Problem: Replant disease stunts trees and reduces yields costing growers more than $70,000 to $150,000 an acre in reduced returns over the first four years of orchard production if not controlled.

Project Goal: Scale up potential alternatives to fumigation to evaluate success and costs at the field scale.

Treatments:

**Anaerobic Soil Disinfestation** (Aug 2018)
1. A carbon source (timothy hay) was applied at 8 T/A.
2. Material was chopped with a flail.
3. Material was tilled in.
4. Rows were tarped (virtually impermeable film) and double rows of drip run continuously for 3 weeks to create anaerobic conditions.

**Brassica Seed Meal** (Aug 2018)
1. Pescadero Gold Mustard meal (1:1 formulation of B. juncea and S. alba) (Farm Fuels Inc., Watsonville, CA) was applied using a Whatcom spreader at 1.6 lb per tree-row-foot.
2. Material was incorporated and plots tarped for 3 weeks. Soil must be aerated at least 3 weeks before planting.

**Fumigated Control** (April 2019)
20 gal/ac Strike 60 (3-Dichloropropene 39.0%, Chloropicrin 59.6%)

Thank you to funders

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