

**A Ground Game to Managing
Invasive Pests in Strawberries
and Caneberries in California**

Mark Bolda

UCCE

Santa Cruz County

Four Invasive Pests in Four Years

- Light Brown Apple Moth (LBAM)
- Spotted Wing Drosophila (SWD)
- European Grapevine Moth (EGVM)
- Brown Marmorated Stinkbug (BMSB)

LBAM

- Initial invasion 2007
- Caneberries 2009
- Strawberries 2010
- Problem continuing into 2012



History

- Six caneberry fields of 140 acres and 12 strawberry fields of 100 acres total closed for LBAM infestation at least temporarily by LBAM Project
- One blackberry field of 30 acres experiences 20% crop damage from LBAM
- Drama continues to unfold with at least parts of 9 fields closed in 2011 and another dozen closures this year 2012.



LBAM in Berries

- Total estimated loss from LBAM \$10,000
- Total estimated loss from business disruption and loss of work from regulatory activities \$3,000,000
- Total funding for LBAM project through 2011 \$87,000,000
- Net cost to American taxpayers and growers \$90,000,000

SWD

- Initially detected August, 2008; not correctly identified until May, 2009.
- 2009 losses in caneberries, \$63 million in cherries, some initial losses to strawberries which seem to be expanding.

SWD

- USDA-CDFR response- no regulation, pest spreads across US and on into Canada, Mexico and Europe within 3 years.

EGVM

- Initially detected in Santa Cruz County 2011.
- Caneberries declared potential host with scant evidence from scientific literature.



UC Statewide IPM Program
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"Tragic Prelude"

LBAM

- Initial non-responsiveness of regulatory officials to local concerns.
- Heavy handedness of regulatory response.
- Tempered over the last two years.

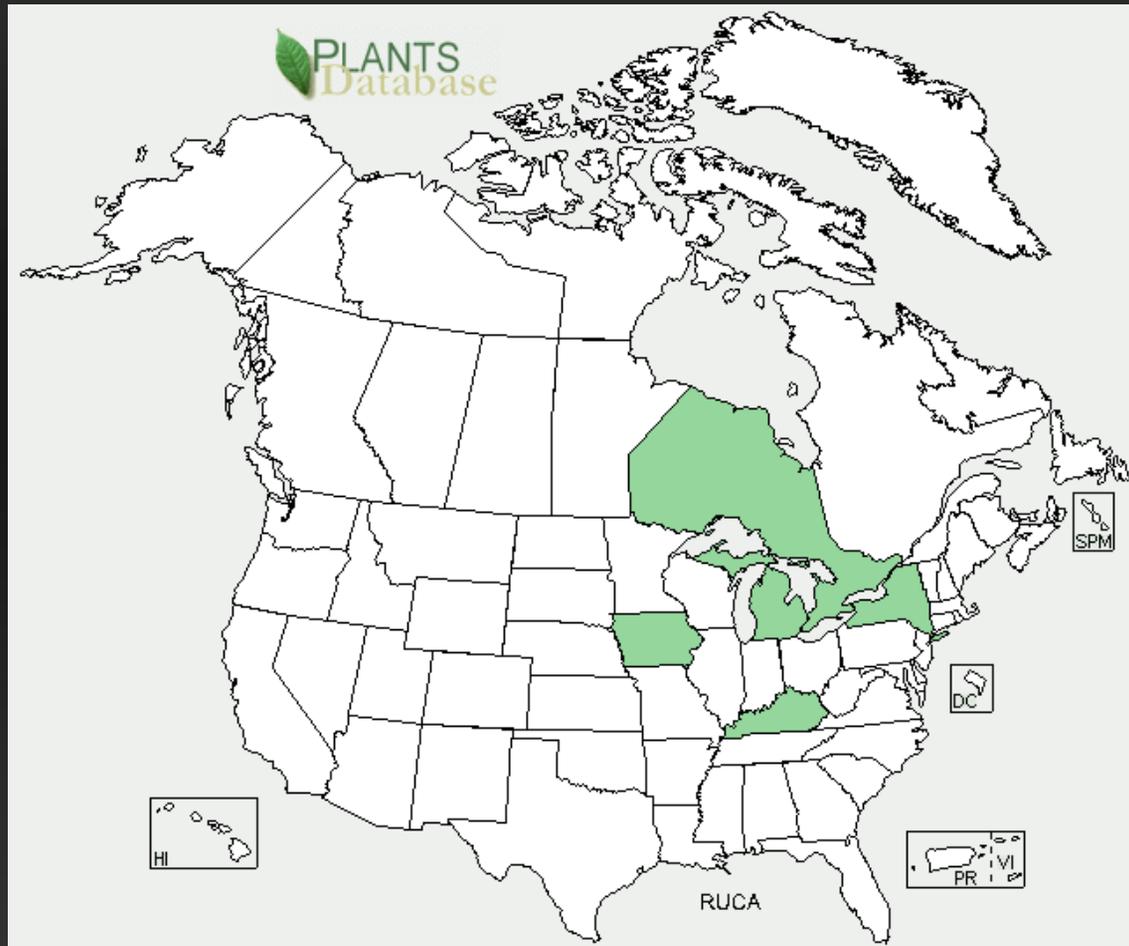
SWD

- Lack of response.
- Could there have been a response?

EGVM

- Technical Working Group declares EGVM to be a non-issue in caneberries Dec 2011, removed from host list Mar 2012
- Exports to Canada still restricted.

Rubus caesius



BMSB

- Initially detected on Eastern seaboard USA
- Response of regulatory authorities.
- Result is spread of pretty noxious pest across USA

Strategy in Place for Central Coast

- Feds have stepped out of the way.
- String of traps already in place in Prunedale, area of initial detection. Coordination with Monterey County Agricultural Commissioner.
- Met with industry entomologist on pesticides selection, looking at Danitol with IR4)
- Promise of mating disruption.

Suggestions for Future Pest Invasions

The Ground Game

- Devolution of regulatory activity to local and state authority. High level Federal authorities are more responsive to larger agendas.
- Rapid integration of locally placed regulatory agents, grower representatives and state scientists into regulatory process.
- Rapid response on the part of regulatory authorities-time is never your friend.
- Reinstate trained border inspectors.

The End