



# **MGK Update**

**IR-4 Biopesticide Food Use Workshop**

Atlanta, GA

September 9-10, 2014



# Veratran D™

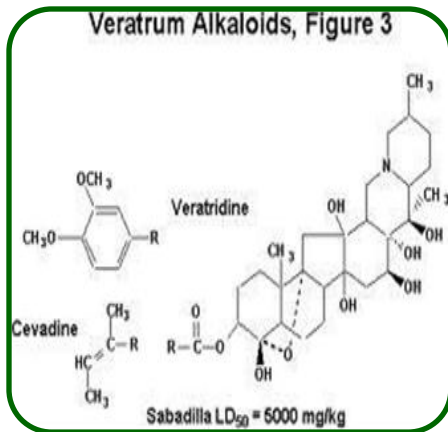


- Only product registered with EPA using *sabadilla* as primary active ingredient



- Veratran D is now OMRI-listed and NOP-approved

# What is sabadilla?



- A natural, botanical insecticide
- Contains 2 primary alkaloids: Veratradine & Cevadine
- Broad-spectrum insect control
- Sodium channel disruptor-- may have unique mode of activity to pyrethrum
- Very low mammalian toxicity (LD<sub>50</sub> =4000)

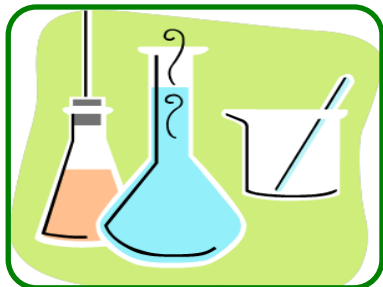




# Veratran D – current status



- Very encouraging results in past year with efficacy in lab bioassays and preliminary field trials
- Focus for Veratran D field efficacy trials:
  1. Key invasive pests
  2. Highest opportunity crop groups
  3. Organic/Sustainable segment



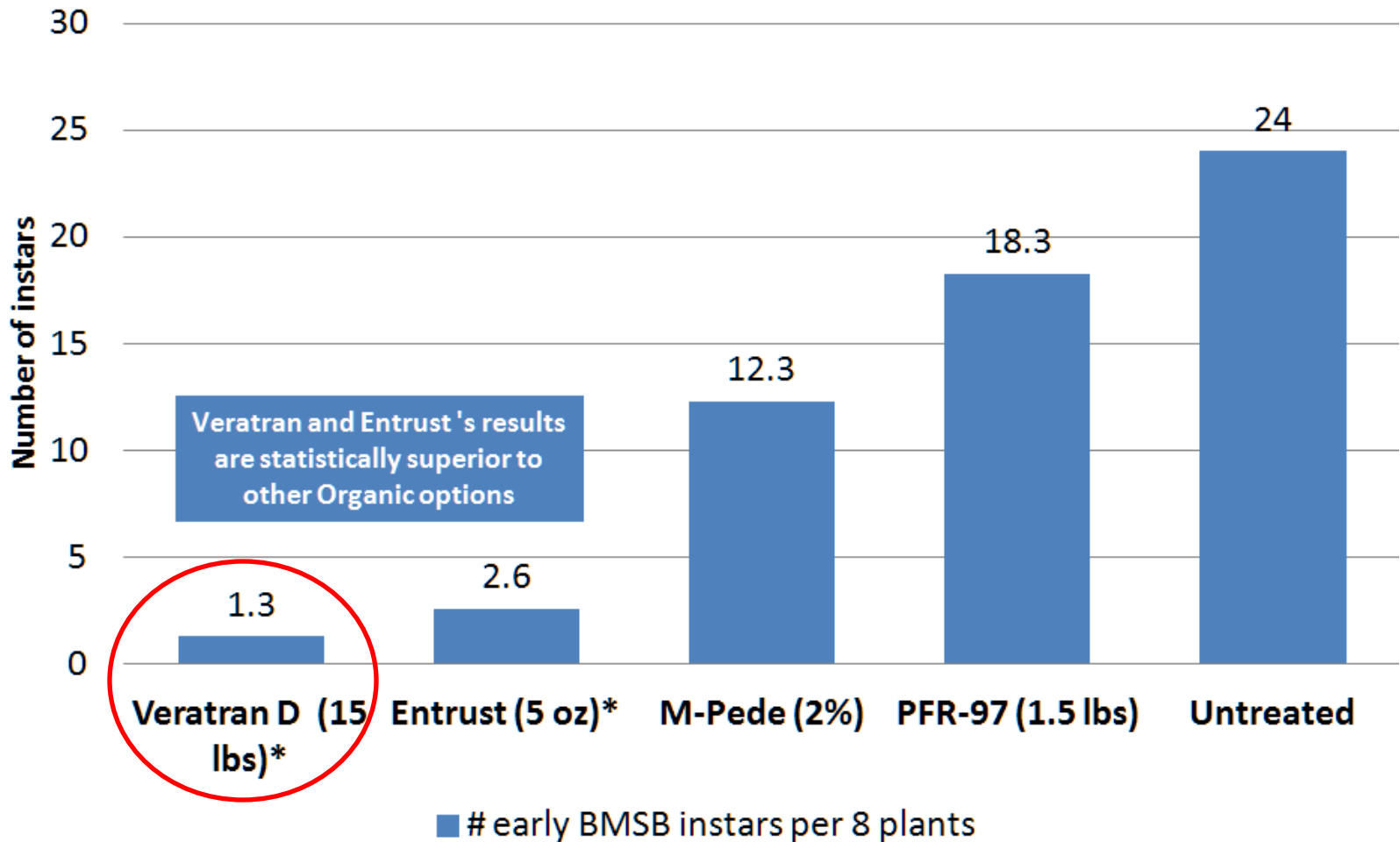
- R&D efforts underway to **standardize** sabadilla formula (similar to pyrethrum)



# BMSB Early Instar efficacy on Bell Pepper

University of Maryland

Beltsville Research and Education Center. June, 2013

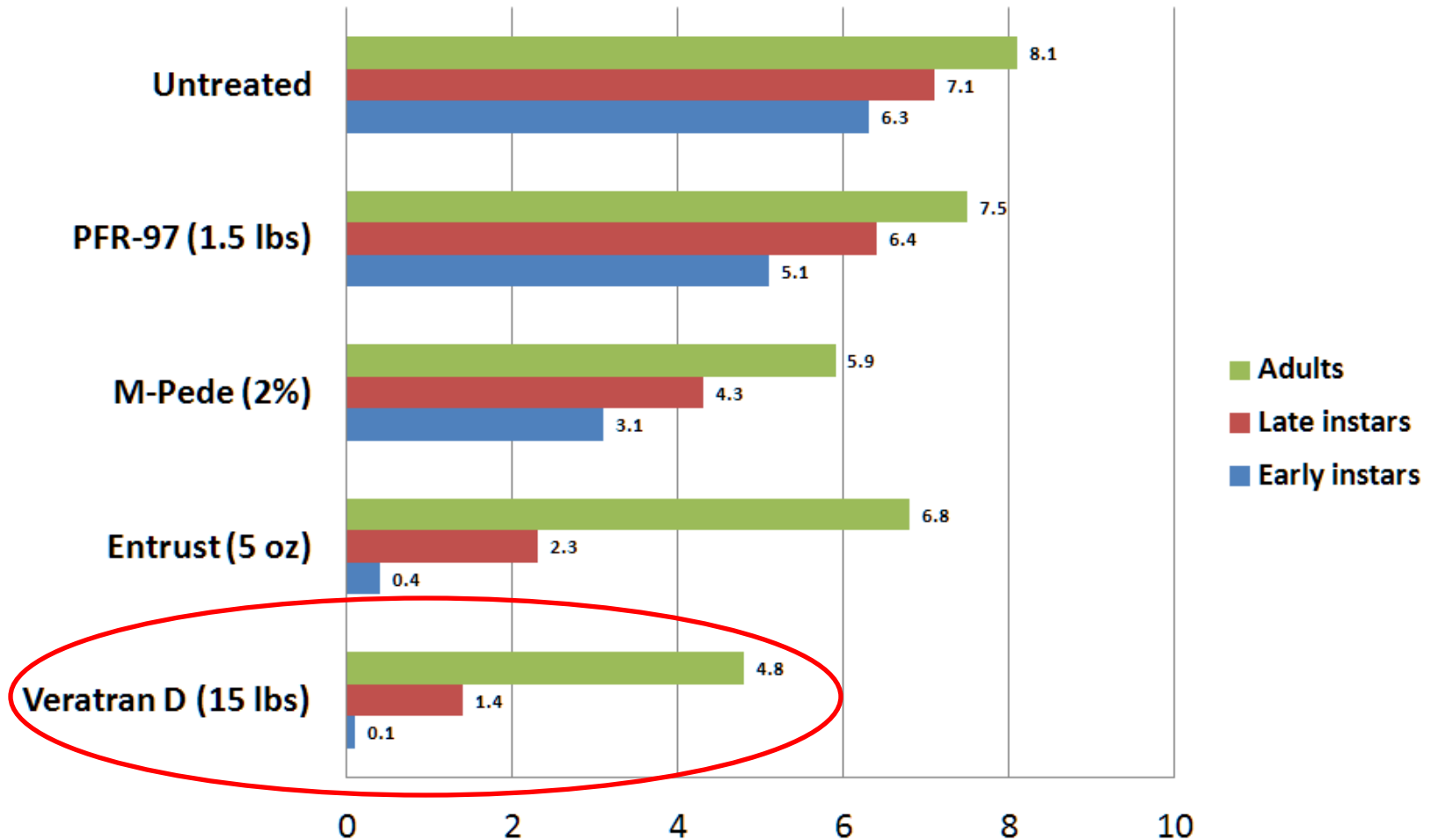




# BMSB Lifestage efficacy on Bell Pepper

University of Maryland

Beltsville Research and Education Center. June, 2013

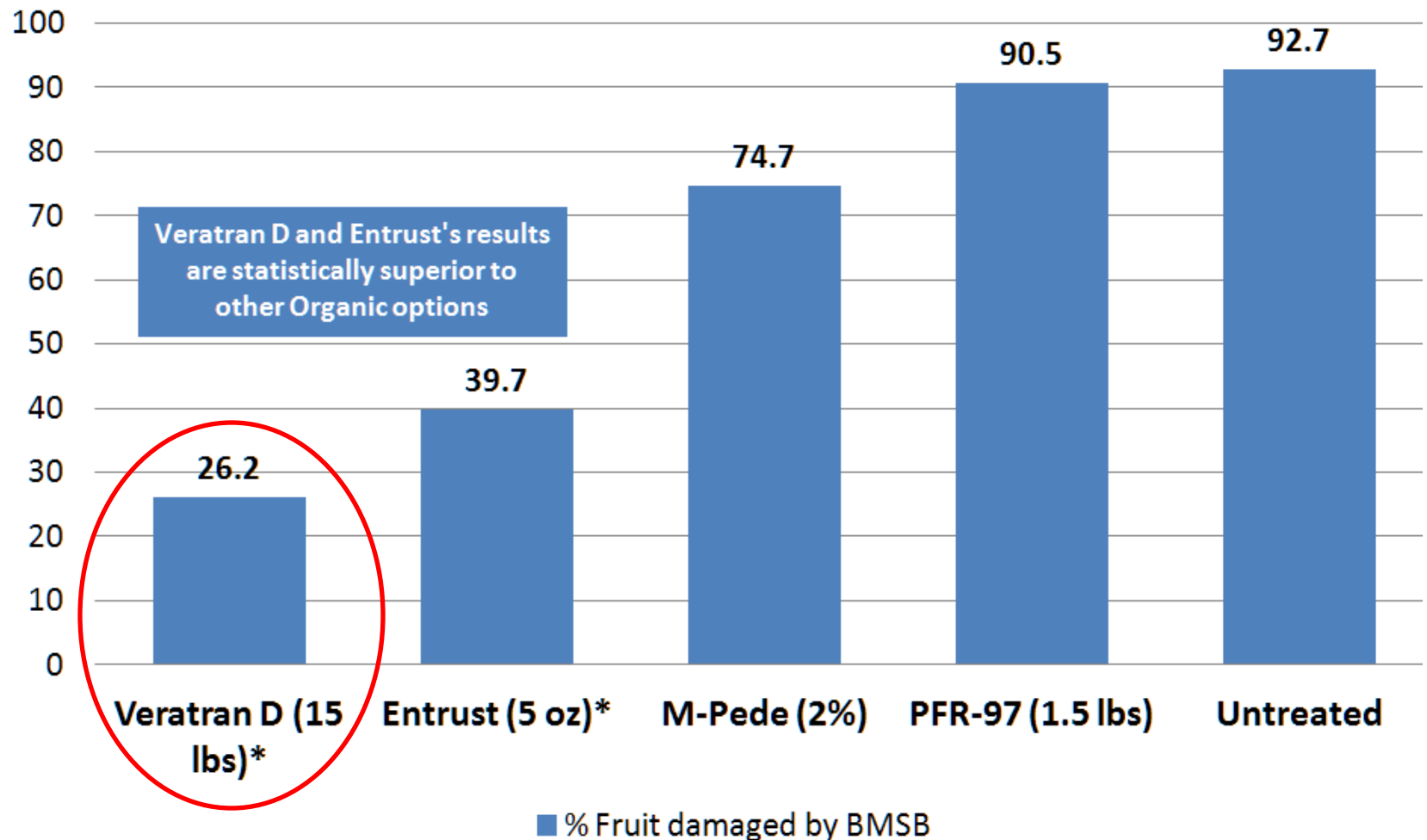




# Percent damage on Bell Pepper by BMSB

University of Maryland

Beltsville Research and Education Center. June, 2013





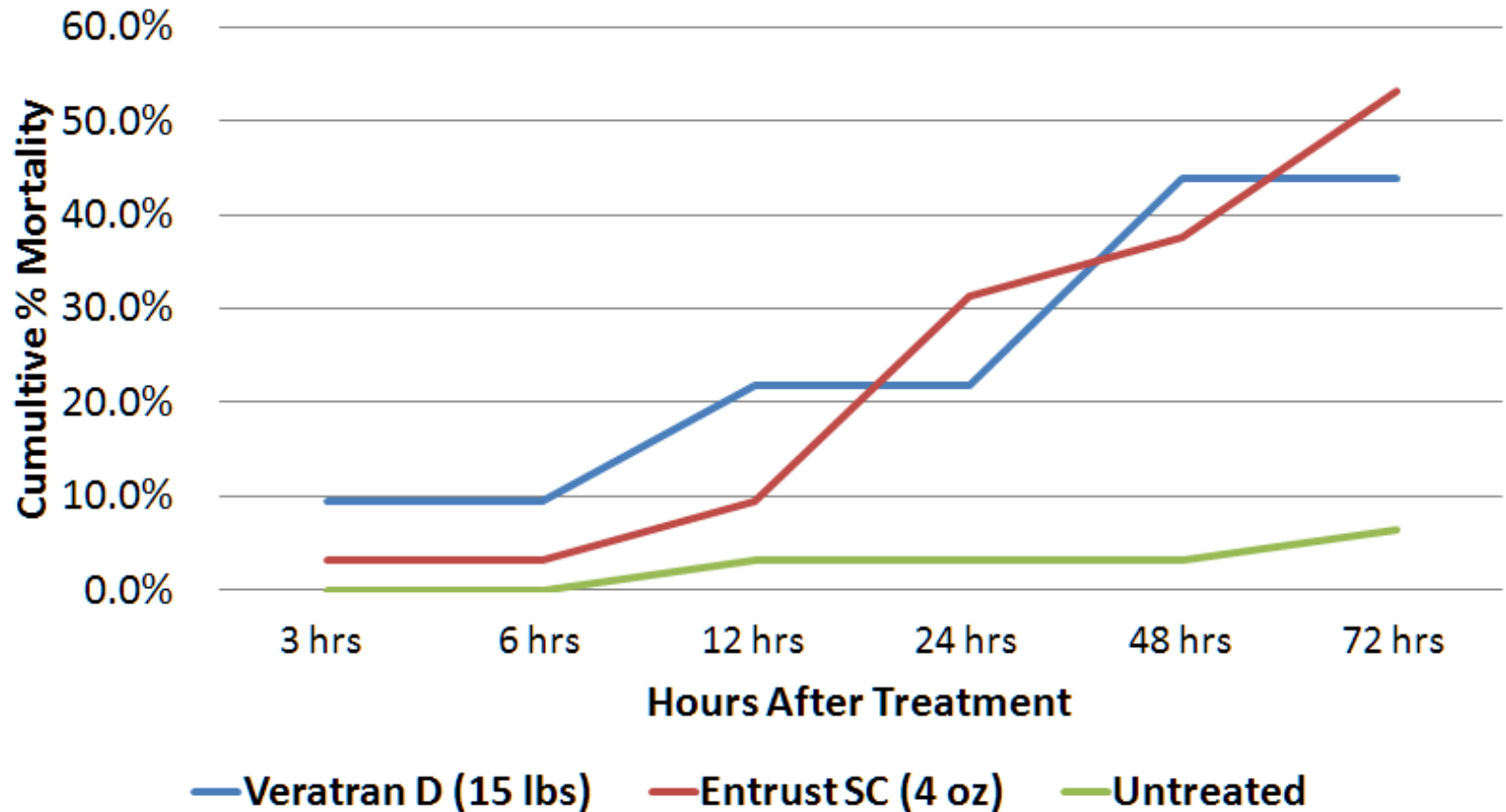


# Efficacy on Bagrada Bug

University of Arizona - Lab Bioassay

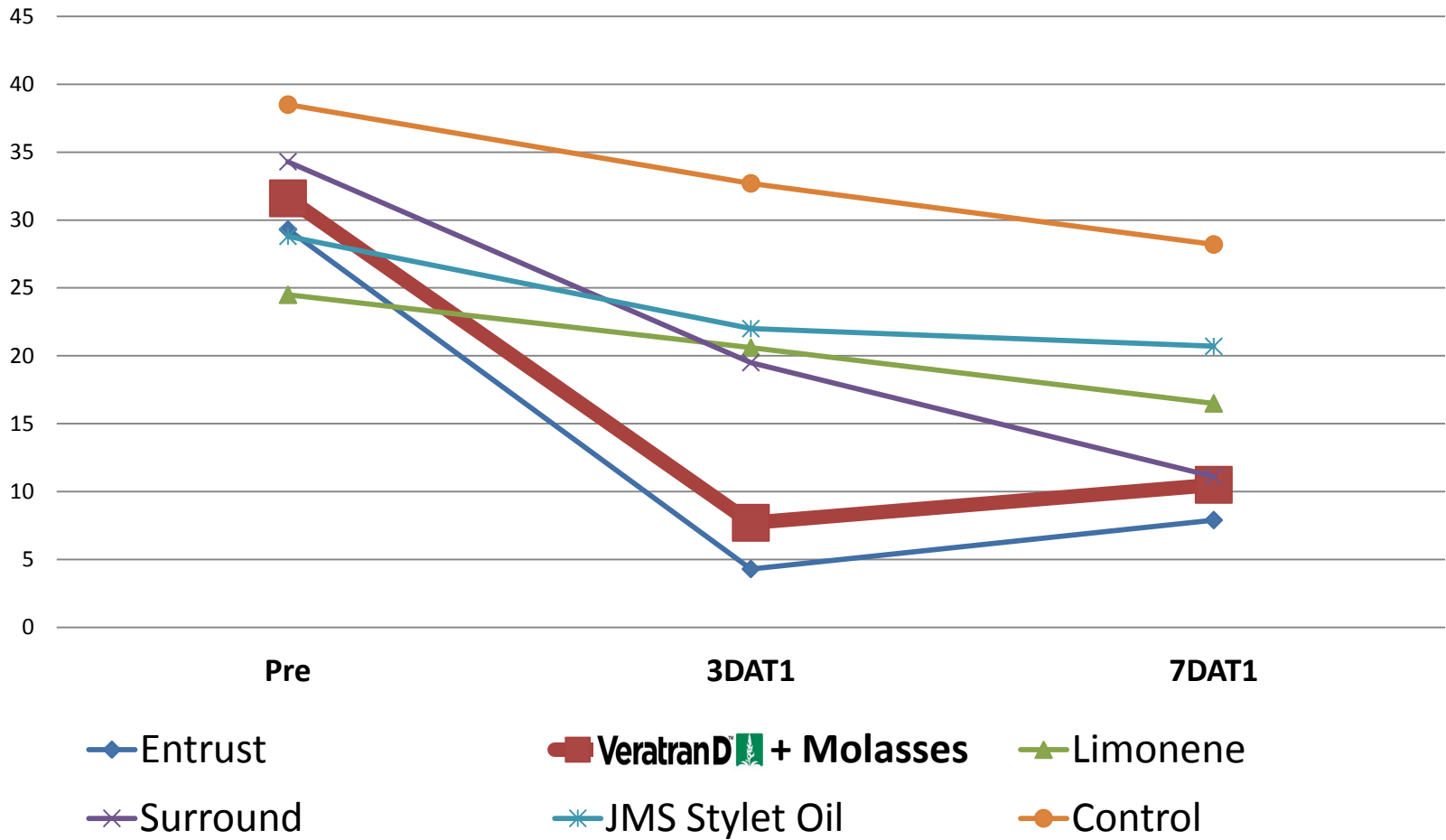
Yuma Agricultural Center

April, 2014





# Veratran D provided similar or better control of thrips than other Organic insecticides on blueberries



# **Veratran D 2014 Field Efficacy trials**

- Univ Minnesota
  - CPB on potato
- Rutgers
  - BMSB on peaches
  - SWD on berries
- Cornell
  - Squash bug, Striped Cuke Beetle, Flea Beetle, Swede Midge, Onion Thrips, Colo Potato Beetle
- North Carolina St.
  - SWD on blackberries
- Michigan St.
  - SWD on caneberries
- Univ. Maryland
  - BMSB, CPB
- Univ. Arizona
  - Bagrada bug on broccoli



## Alignment with Listed Biopesticide Priorities

- Postharvest/export crops
- Spotted Wing Drosophila – All crops
- Plant bugs – All crops
- Brown Marmorated Stink Bug – All crops
- Mite/Thrips.Whiteflies/Aphids – vegetables
- Flea Beetles – eggplant
- Squash bugs Cucurbits
- Aphids and whiteflies – Vegetables
- Colorado Potato Beetle – Potato
- ACP- Citrus
- Whiteflies and Psyllids – GH Tomato
- Chili thrips – Dragon Fruit
- Cabbage Looper – Brassica
- Pepper weevil – GH Pepper



**Thank you for  
your support!**

**MGK Crop Protection  
2014 IR-4 Biopesticide Food Use  
Workshop**

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September 10, 2014