

OREGON SUMMMER UPDATE

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August 2, 2016

Lorsban (Chlorpyrifos)

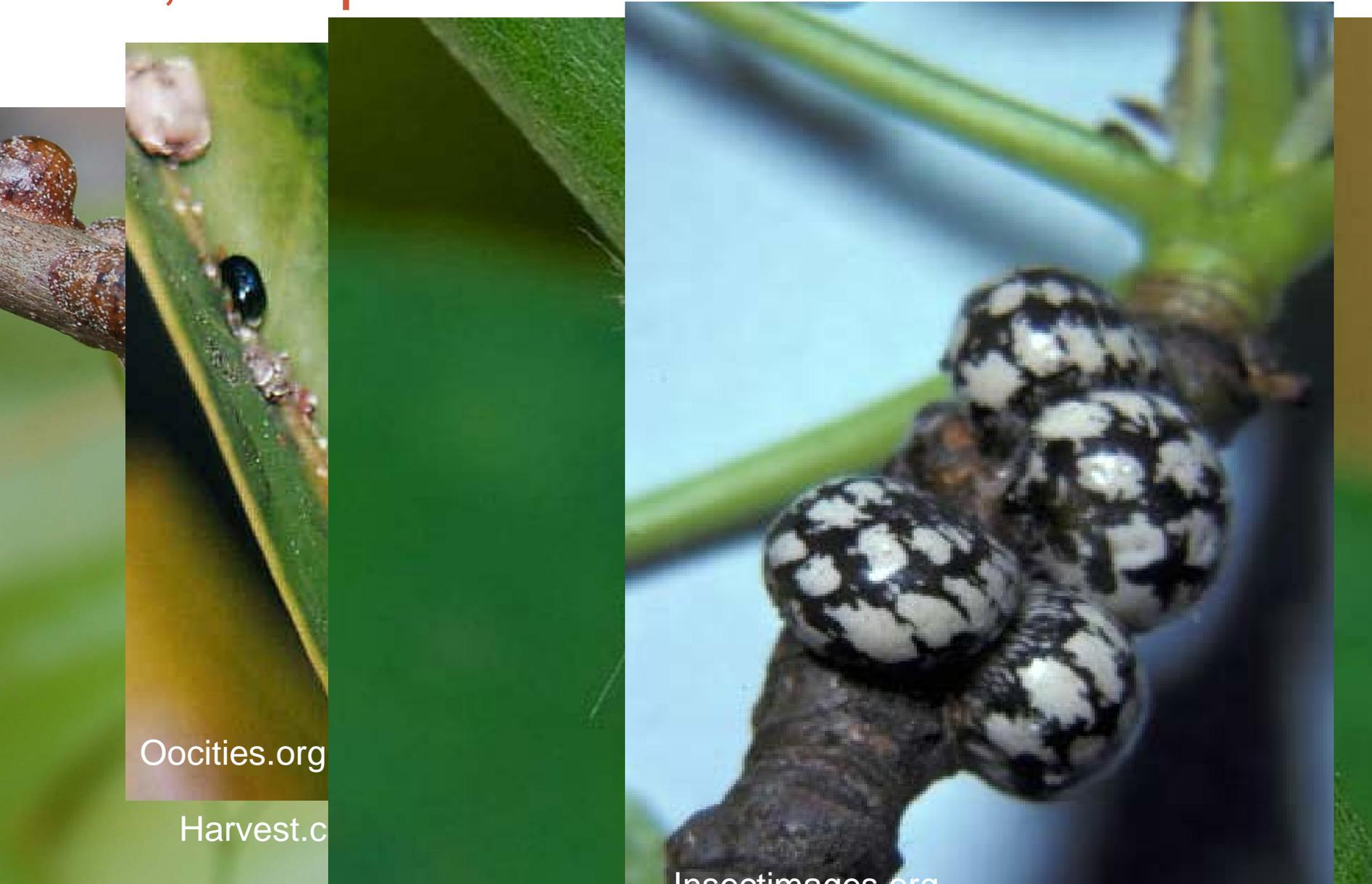
- Under consideration for cancellation by the EPA in 2016
- Recommendation: Use up existing stock ... But ...
- ... Be aware of:
 - MRLs
 - PHIs
 - Need ...

What are scale insects???

- Tiny, sucking insects
- Feed on plant material
- Shield-like, protective scale
- Relatively immobile



~8,000 species in the world



Oocities.org

Harvest.c

Insectimages.org

Scale Insects in cranberries

Soft Scales

Brown soft scale

Armored Scales

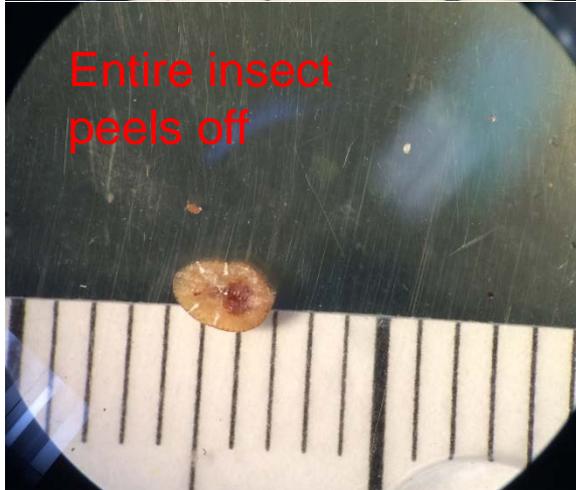
Greedy scale

Dearnness scale

Putnam scale

• Brown Soft Scale

- Soft Scale = insect and shell all one piece



• Greedy Scale

- Armored scale = insect and shell separate



- **Brown Soft Scale**

- Usually found on leaves



- **Greedy Scale**

- Primarily found on stems



• Brown Soft Scale

- Produces honeydew
→ sooty mold



• Greedy Scale

- No honeydew = no sooty mold



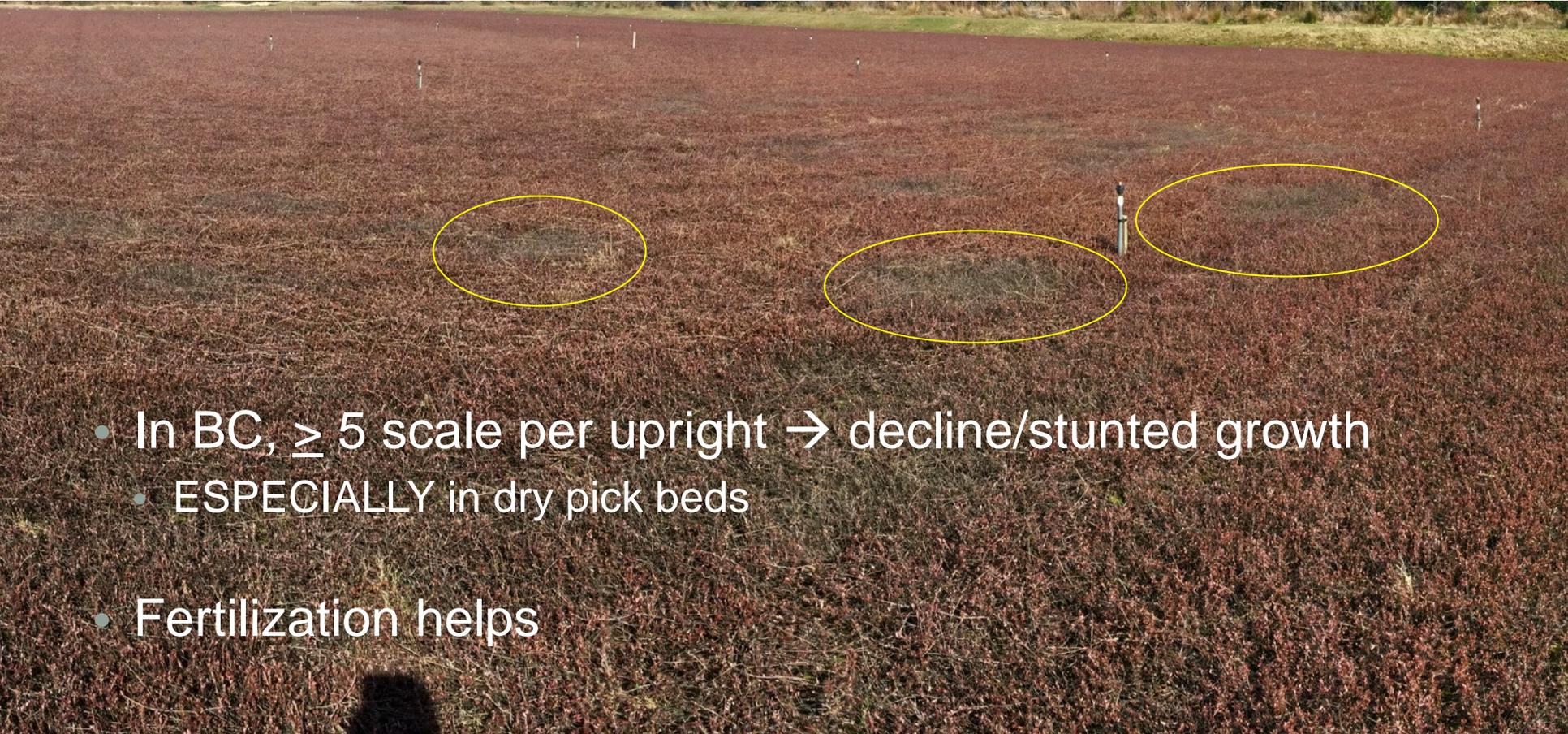
Treatment: timing and options

- Brown Soft Scale
- Timing → winter/early spring.
 - 2% insecticidal soap (M-Pede)
 - +/- OP



Brown soft scale

Greedy scale

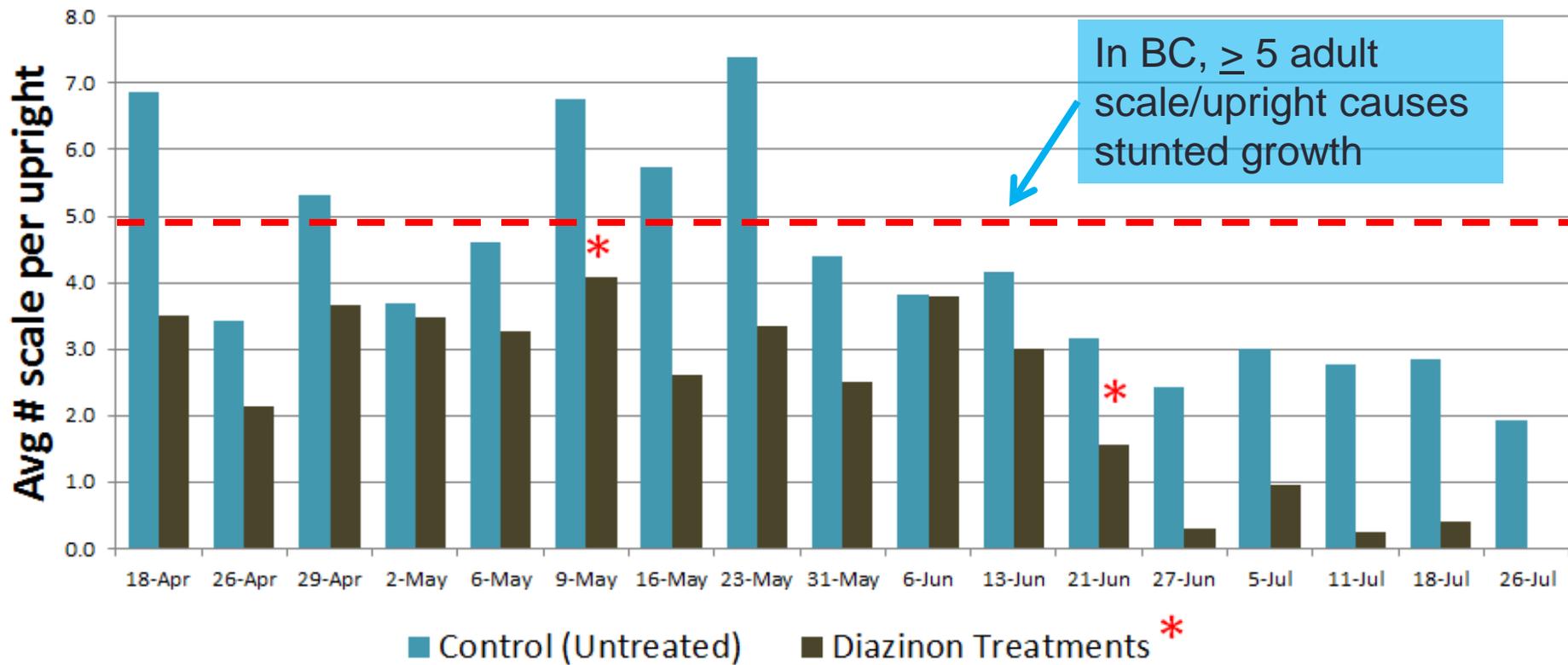


- In BC, ≥ 5 scale per upright \rightarrow decline/stunted growth
 - ESPECIALLY in dry pick beds
- Fertilization helps

2016 Greedy Scale -- Adults

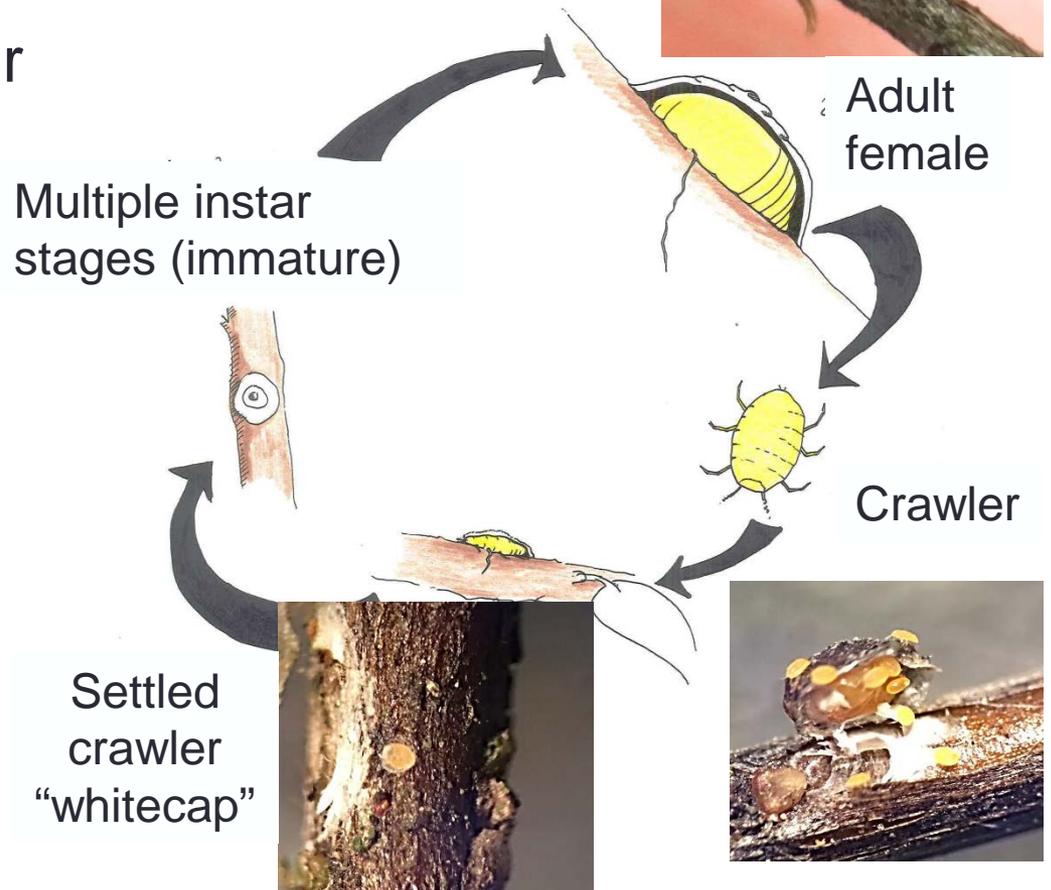


Average adult scale per upright

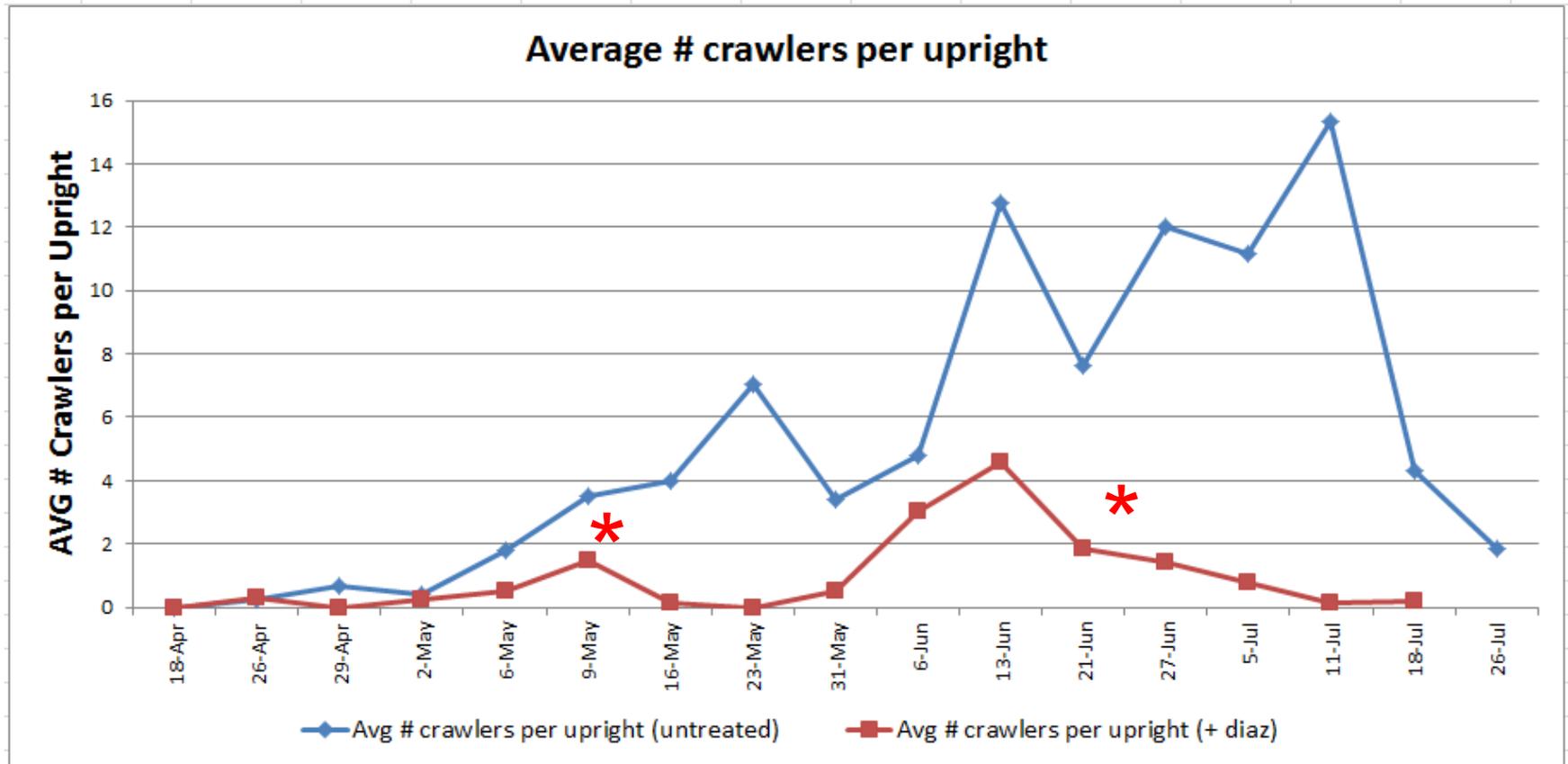


Basic scale insect life cycle

- Adult → Egg → Crawler
→ Immature → Adult
- Can have multiple generations per year!



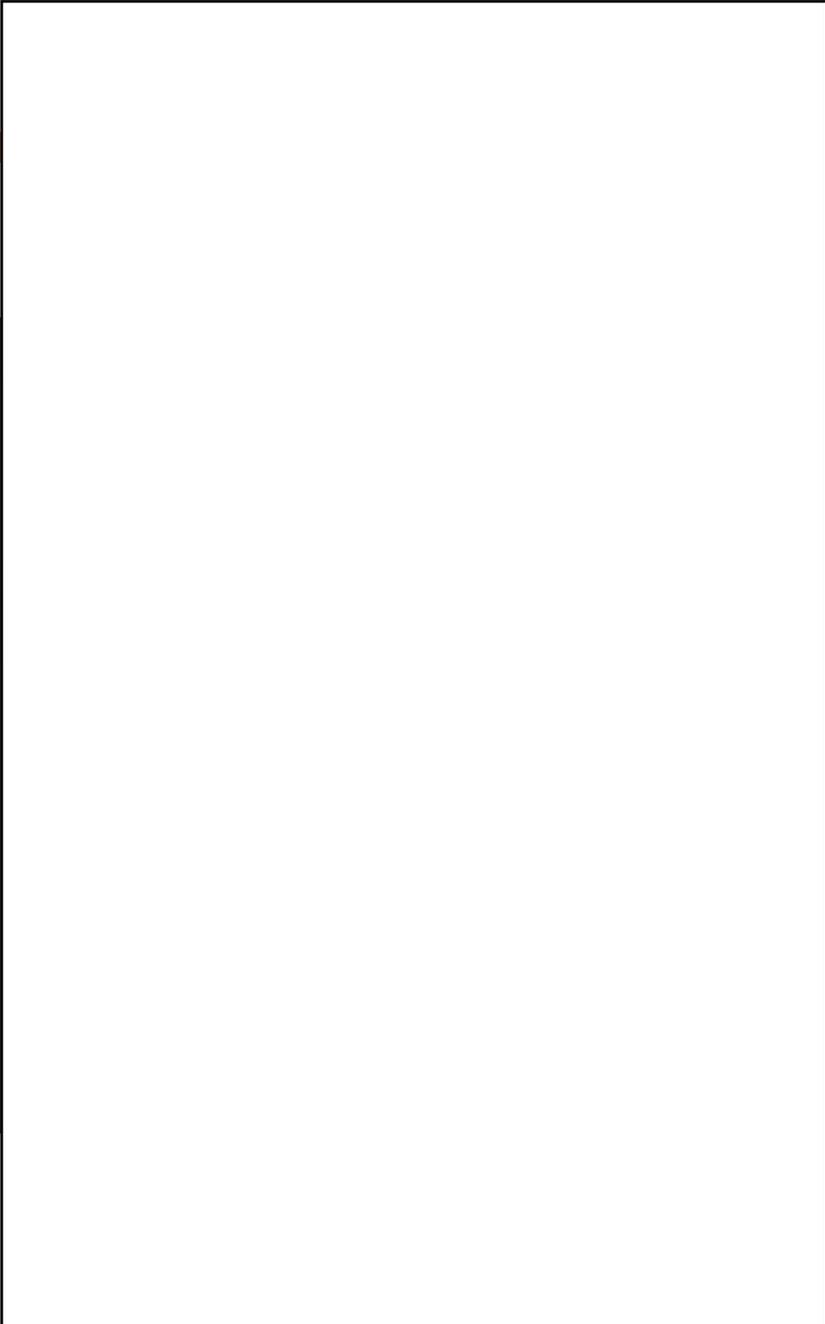
2016 Greedy Scale -- Crawlers



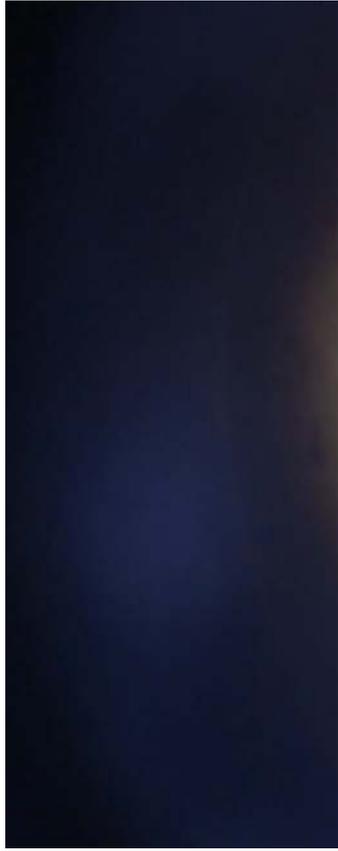
2016 field observations

- Preliminary data
 - Mpede (Insecticidal soap)
 - Great for Brown Soft Scale!! USE IT.
 - Disappointing for greedy scale
 - Diazinon
 - Good control ... multiple treatments necessary
 - Effective against crawlers, not adults
 - Have to work around bees ... watch out for native pollinators!!
 - ...also → could knock down beneficial insect populations
 - Mites
 - Parasitoid wasps
 - Etc.

Predatory

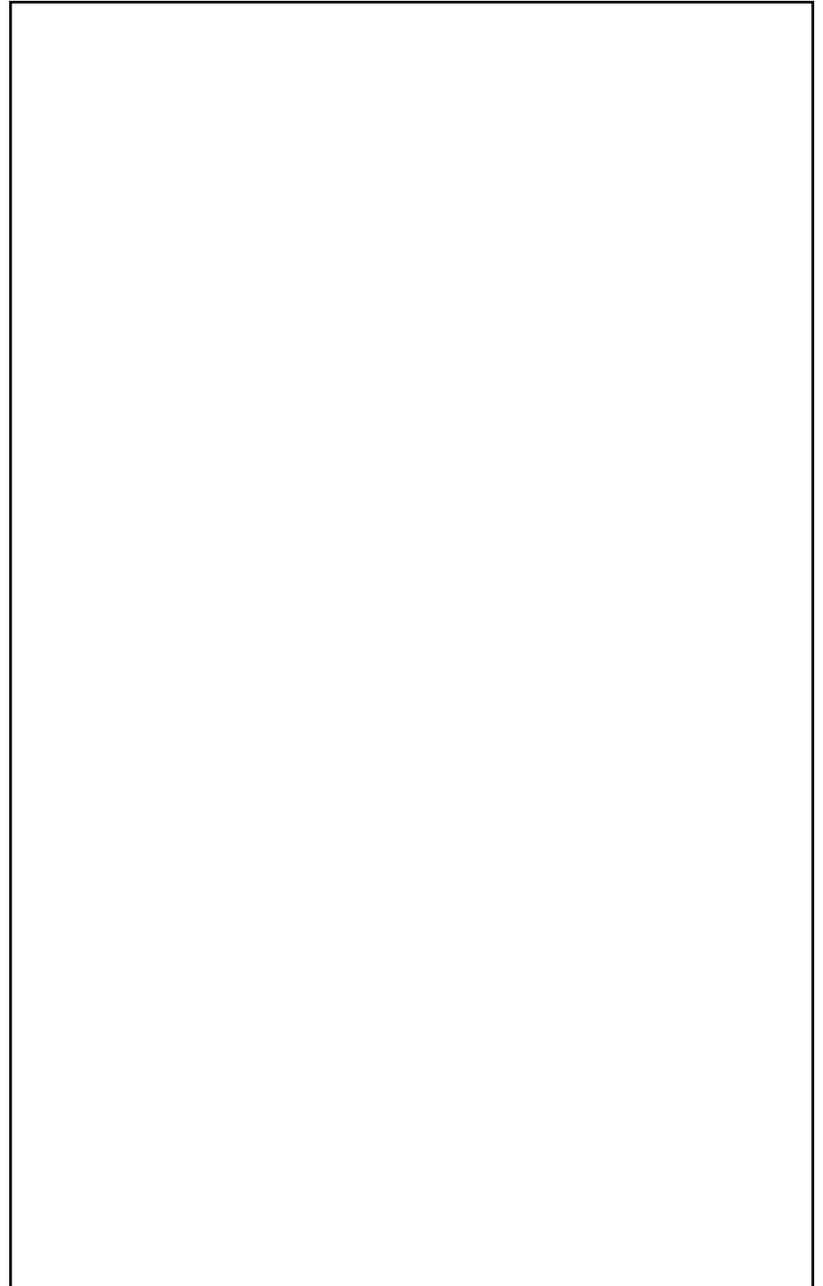


More prec



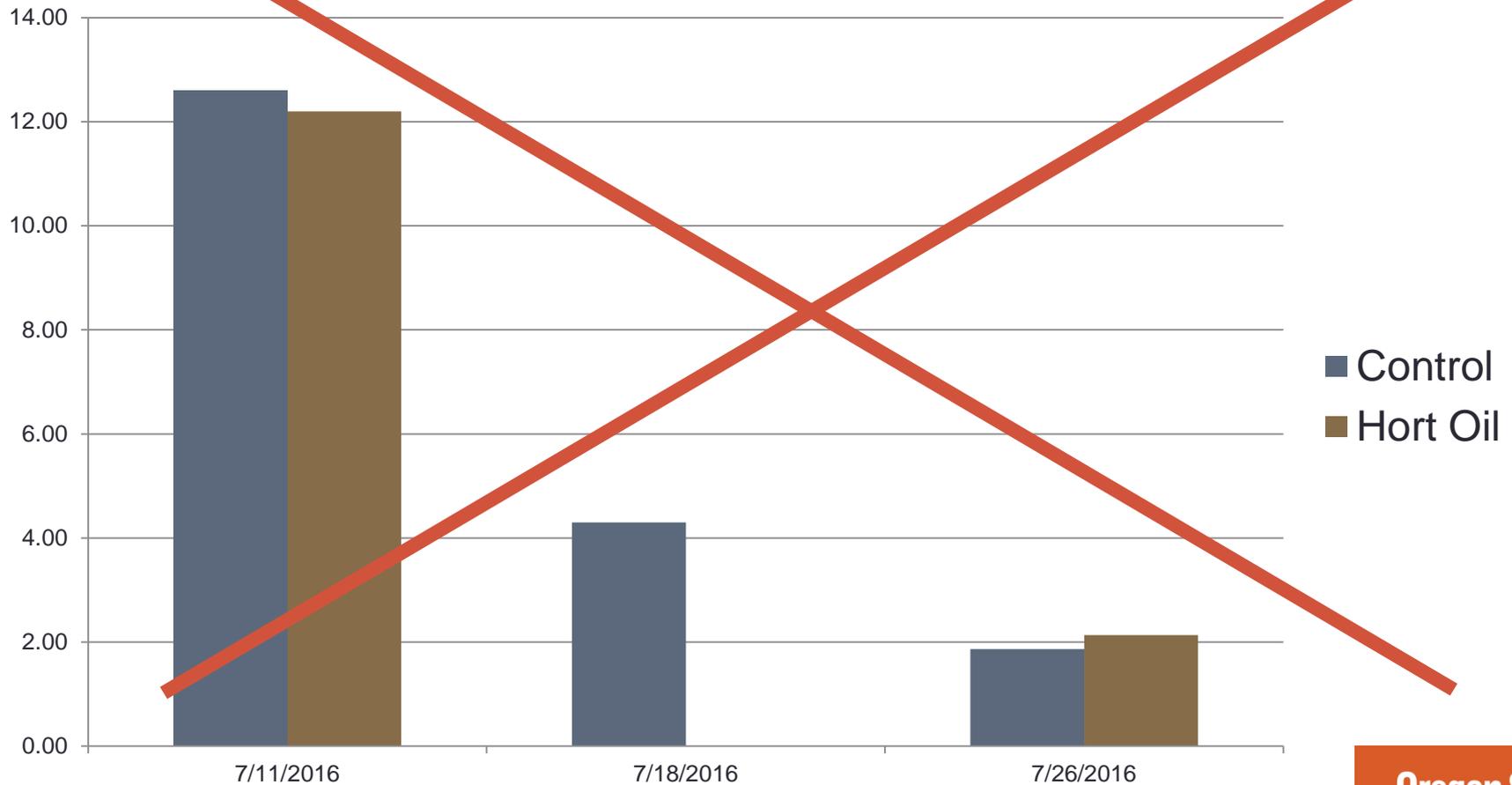
Parasitoid wasps

- We know diazinon works
- The goal: find alternative options to minimize effects on bees and beneficials



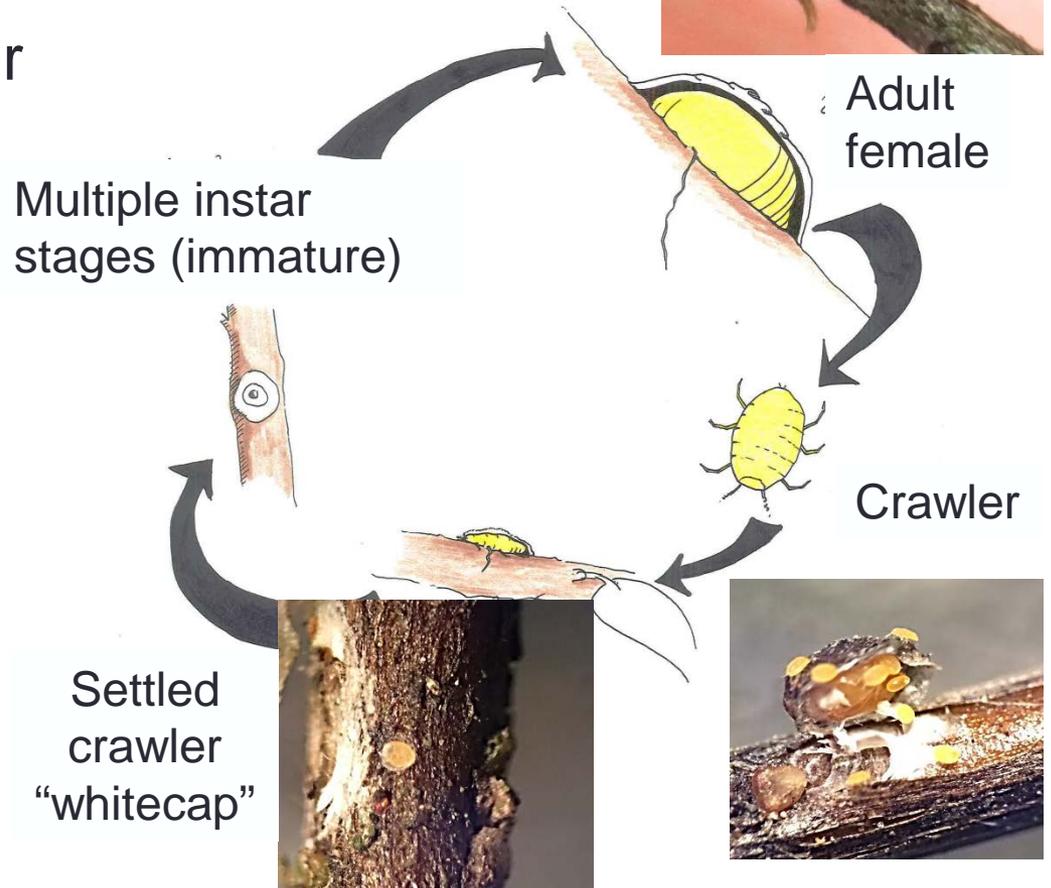
2016 field observations – Hort Oil

Avg # Crawlers per Upright



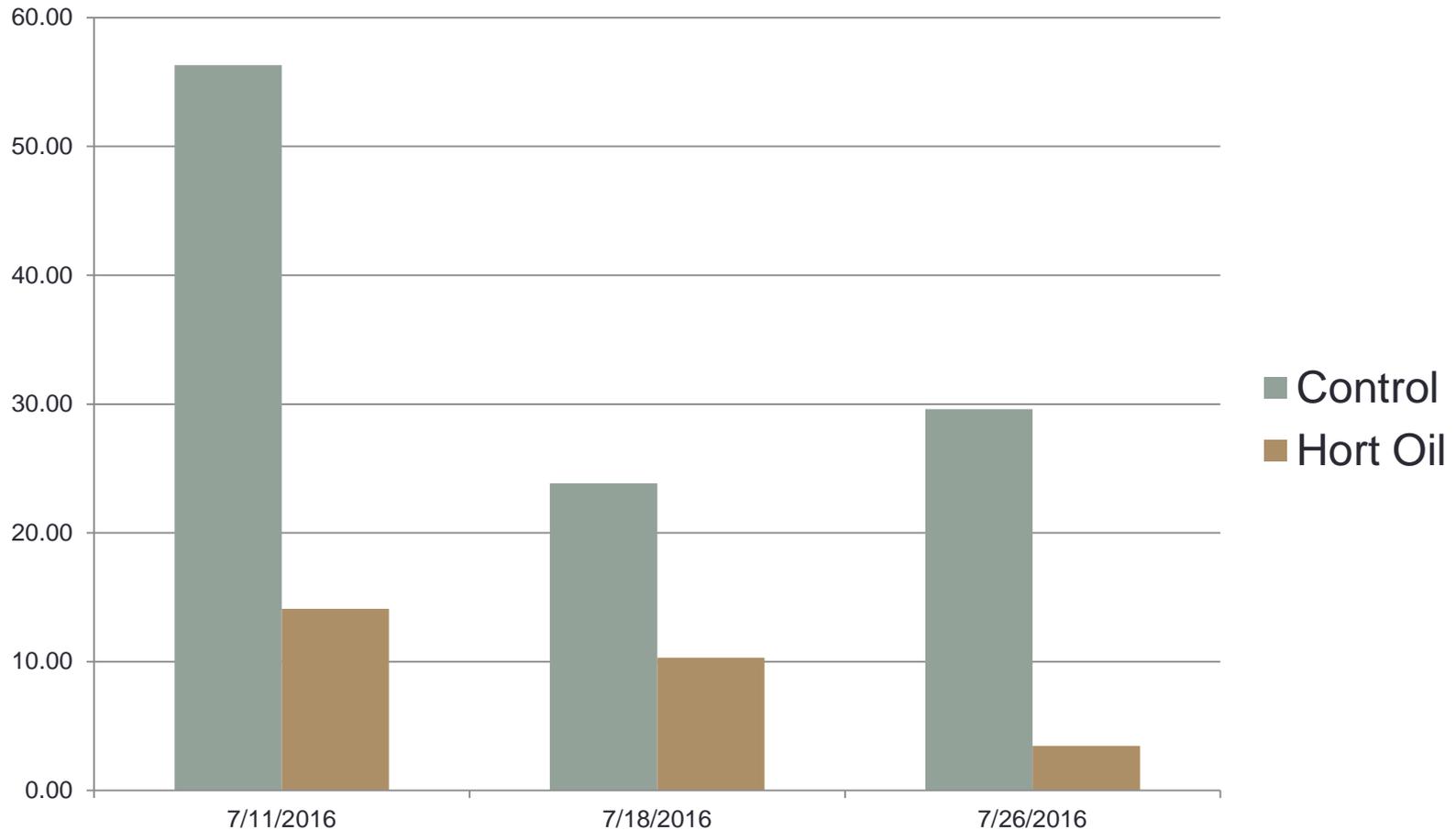
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Hort Oil → Whitecaps??? → YES!!

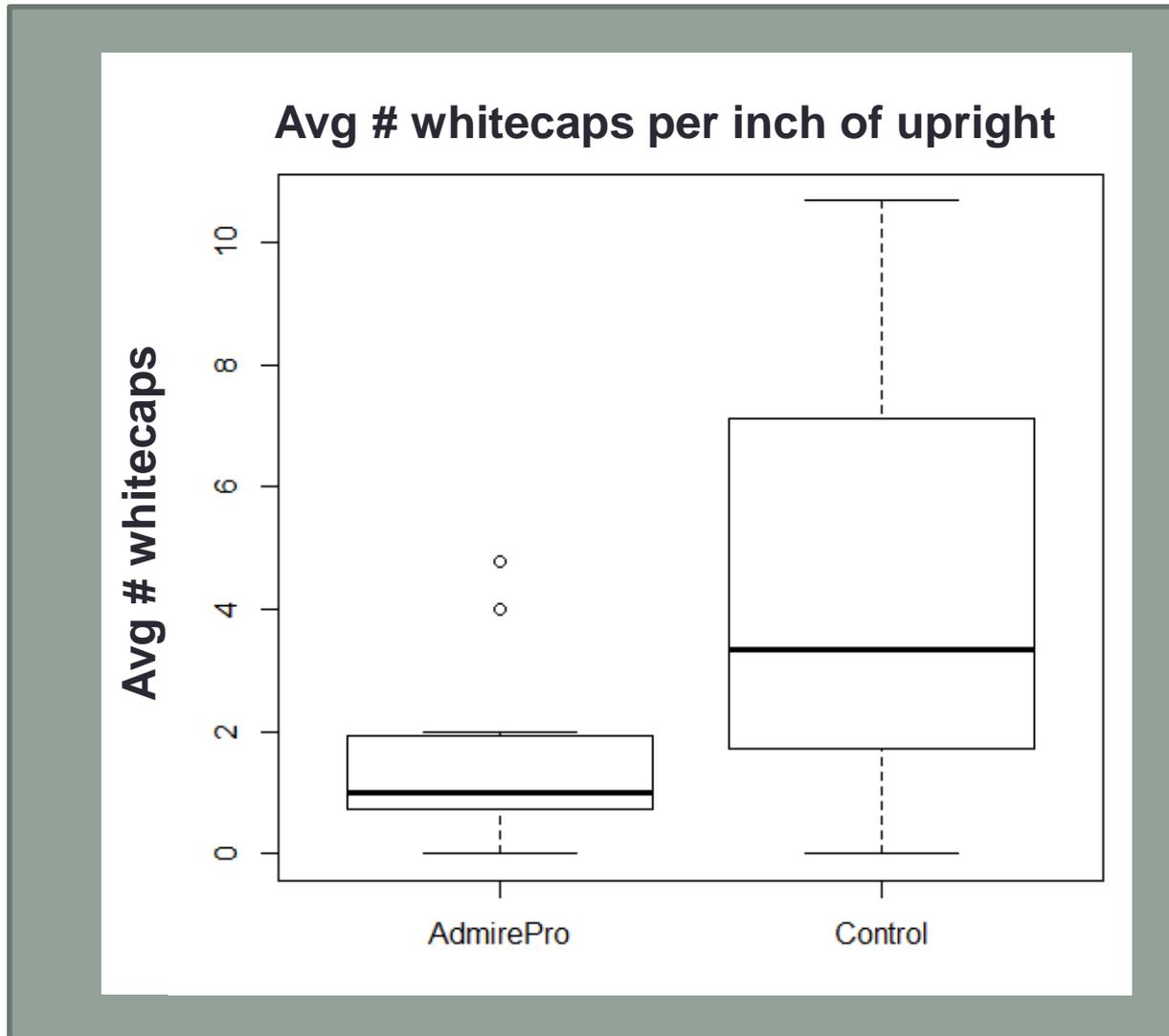
Avg # Whitecaps per Upright



Horticulture Oil shows promise

- Good results in BC. Good results here.
- At least 2 treatments during crawler emergence needed
- Not seeing phytotoxicity issues

Admire Pro (Imidacloprid)



- July 26 data applied (7/14)
- EARLY results
 - Admire appears to have an effect
 - Will continue monitoring
- Protect native bees!

What's next?

- Pesticide screening 2017, 2018 to find more (better?) control options for greedy scale
- In the meantime
 - Watch for sooty mold (possible brown soft scale)
 - Watch for dead spots (greedy scale)
 - Maintain a good fertilizer program



Questions???