San José Scale Management

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San José Scale

- Sucking pest
- Injures fruit & bark
- Overwinters on bark
- Disperses to fruit in crawler stage (starts mid-June)
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Management

• **Use oil in late winter or early spring to smother the overwintering population on bark**

OR

• **Use insecticide**
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Oil spray:

• Best control of scale if applied before buds swell

• Prevent damage to tree by applying when temperature above freezing within a day of application

• Apply dilute (2 gal oil in 100 gal water; spray to run-off), cover all bark
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Insecticide spray options:

• Delayed dormant (pre-bloom)
• Post-bloom
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Insecticide spray options:

• Delayed dormant (pre-bloom)
  – Esteem
  – Lorsban 4E
  – Supracide
  – Diazinon

• Post-bloom
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Insecticide spray options:

• Delayed dormant (pre-bloom)
• Post-bloom
  – Esteem
  – Diazinon 50WP
  – Provado
  – Assail
  – Centaur
  – Baythroid
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Esteem 35WP:

• Very effective, but expensive

• Best use:
  – Apply before bloom

• 2nd best use:
  – Direct at crawlers (mid-June)
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Esteem 35WP:

- **Best use:**
  - Apply before bloom
  - Use low rate (4 oz/A)
  - If applied at 1/2”-green, also controls rosy apple aphid
  - If applied at pink, also controls leafminer
  - At 1/2” green, it works better when applied with oil, but it can be applied alone
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Esteem 35WP:

• 2nd best use:
  – Direct at crawlers (mid-June)
  – Use high rate (5 oz/A)
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• Other options during delayed-dormant period:
  apply oil + organo-phosphate:
  – Lorsban 4E
  – Supractide 25WP
  – Supractide 2E
  – Diazinon

• Control mostly from the oil, not the OP
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- Post-bloom control options
  - Diazinon
    - Direct at crawlers (mid-June)
  - Provado
    - Direct at crawlers (mid-June)
Review: Diazinon status on tree fruit

• Diazinon 50WP
  – Allowed on apple & pear; 21-d PHI
  – Allowed on peach; 21-d PHI

• Diazinon AG500 (4EC)
  – Not allowed on apple & pear
  – Allowed on peach; 21-d PHI

• Diazinon AG600 WBC
  – Allowed on apple & pear but not after petal-fall
  – Allowed on peach; 21-d PHI
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When are crawlers crawling?

- Start about 4-6 weeks after bloom
- Emergence lasts several weeks
- Monitoring methods:
  - Predict using trap & temperature
  - Detect with black sticky tape
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When are crawlers crawling?

• Use pheromone trap
  – Set up trap at pink bud stage
  – First adults usually caught at bloom

• Track temperature
  – Crawlers expected 300-350 DD degree-days (base 50°F) after catch of adults in trap
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When are crawlers crawling?

• Use black sticky tape (electrical tape)
  – Wrap sticky-side out around branch
  – Look for tiny bright yellow crawlers