Outline

• Anthracnose and strawberries
• Our trial
• Conclusions
Anthracnose crown rot and fruit rot

- Caused by *Colletotrichum acutatum*
Anthracnose crown rot
Anthracnose crown rot
Anthracnose crown rot and fruit rot

Control options

• Pathogen-free planting stock
• Fumigation
• Pre-plant fungicide dip
• Foliar fungicide application before rain event for fruit rot
• *C. acutatum* can be resistant to fungicides
Azoxystrobin resistance
The trial

- **Day 1:** Strawberry transplants inoculated with *Colletotrichum acutatum*
  - 4 strobilurin (QoI) resistant strains
  - 4 QoI sensitive strains
- **Day 2:** Fungicide treatment: dip five minutes then drain and refrigerate overnight
- **Day 3:** Planted
Treatments

Checks

1) Non-inoculated, non-treated, non-washed
2) Non-inoculated, non-treated, washed
3) Inoculated, non-treated
4) AboundFRAC 11
5) SwitchFRAC 9 + 12
6) Zivion M LowFRAC 48
7) Zivion M HighFRAC 48
8) Zivion M Low + Omega 500FFRAC 48 + 29
9) Omega 500FFRAC 29
10) Kenja 400SCFRAC 7
11) Actinovate
71 days after planting
QoI Sensitive

QoI Resistant

71 days after planting
<table>
<thead>
<tr>
<th>Treatment</th>
<th>Image</th>
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<tbody>
<tr>
<td>Non-washed</td>
<td>![Image of non-washed treatment]</td>
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<tr>
<td>Washed</td>
<td>![Image of washed treatment]</td>
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<tr>
<td>Inoculated only</td>
<td>![Image of inoculated only treatment]</td>
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<tr>
<td>Abound</td>
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<td>Ziv low</td>
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<td>Ziv high</td>
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<td>Ziv + Omega</td>
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<td>Actinovate</td>
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71 days after planting
Non-washed | washed | Inoculated only | Abound

Switch | Ziv low | Ziv high | Ziv + Omega

Omega | Kenja | Actinovate

71 days after planting
Conclusions

- No difference between cultivars Portola and Monterey
- This trial had much more potent inoculum than real life
- Switch, Abound, and Zivion are effective, IF no resistance.
- Additional resources:
  - Anthracnose Production Guideline
  - UCIPM efficacy tables
Gray mold management & fungicide resistance meetings!

- December 12 – Ottavio’s Italian Restaurant, Camarillo
  - 2 PCA CE units

- December 13 – UCCE Santa Cruz, Watsonville
  - 3 PCA CE units

- December 14 – Radisson Inn, Santa Maria
  - 2 PCA CE units

www.strawberry.calpoly.edu