BASF Product & Research Update
Ag. Innovation Symposium, March 26, 2014

Merivon®
Xemium Brand Fungicide

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Merivon® Fungicide

- **Registered Crops:** Nut crop, pome and stone fruits, carrots, and strawberries

- **Formulation:** Suspension Concentrate (SC)
  - Water based suspension of Fluxapyroxad (Xemium®) and Pyraclostrobin (F500®) particles
  - Ratio is 1:1 based on weight

- **Active ingredient loading:**

<table>
<thead>
<tr>
<th>Merivon®</th>
<th>Active Ingredient Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% by weight</td>
</tr>
<tr>
<td>Fluxapyroxad (7)</td>
<td>21.26</td>
</tr>
<tr>
<td>Pyraclostrobin (11)</td>
<td>21.26</td>
</tr>
<tr>
<td>Merivon (total)</td>
<td>42.52</td>
</tr>
</tbody>
</table>
# Maximizing Strawberry Production with Merivon®

<table>
<thead>
<tr>
<th>Merivon® Use – Strawberries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Diseases</strong></td>
</tr>
<tr>
<td>Powdery Mildew, Leaf Spot, Anthracnose 4 – 7 oz/A</td>
</tr>
<tr>
<td>Botrytis Gray Mold 8-11 oz/A</td>
</tr>
<tr>
<td><strong>Use Rate</strong></td>
</tr>
<tr>
<td>4-11 oz/A</td>
</tr>
<tr>
<td>Max Applications per Season</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td><strong>PHI</strong></td>
</tr>
<tr>
<td>0 days</td>
</tr>
<tr>
<td>REI</td>
</tr>
<tr>
<td>12 hours</td>
</tr>
<tr>
<td><strong>General</strong></td>
</tr>
<tr>
<td>Start applications prior to disease development and continue on 7-10 day interval.</td>
</tr>
</tbody>
</table>

Maximum 2 consecutive applications then rotate to non-Group 7 or non-Group 11 product. No adjuvant or tank mixing restrictions.
Research Trials on Strawberry

Merivon®
Xemium® Brand Fungicide
**Merivon®**
**Strawberry Powdery Mildew Control**

2013 UCCE Mark Bolda

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**% Disease Infection**

- Untreated Control: 8
- Fracture 18.2 oz alt Switch 14 oz: 5
- Fracture 18.2 oz + Quadris Top 23 oz: 5
- Rally 5 oz alt Quintic 6 oz: 3
- Tavano 13 oz: 3
- Rally 5 oz: 3
- Fontelis 1.5 pt: 3
- Torino 3.4 oz alt Rally 5 oz: 2
- Quintec 6 oz: 2
- Fontelis 1 pt: 2
- Rally 5 oz alt Torino 3.4 oz: 1
- Quadris Top 23 oz: 1
- Merivon 6 oz: 0

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**Trial Location:** Watsonville, CA. Applications were made on May 30, June 12, 26 and July 10. GPA=150 gal

**Ratings:** disease severity on underside of 10 strawberry leaflets – 0-100% scale. Ratings taken on July 24, 2013.
Wight of Non-Marketable Fruit Due to Anthracnose (g/plot)

- **Untreated**: 106 g
- **Switch 14 oz**: 15 g
- **Elevate 1.5 lb/A**: 216 g
- **Merivon 8 oz**: 0 g
- **Merivon 11 oz**: 2 g
- **Pristine 23 oz**: 0 g

1 trial - Dr. Frank Lowes. 8 apps on 7 d interval. All trts with Induce at 0.125%.
Merivon® Strawberry Botrytis Control
2011-2012 Average of 7 US Trials

% Disease Incidence

- Untreated: 59%
- Switch 14 oz: 23%
- Merivon 11 oz: 23%
- Merivon 8 oz: 25%

7 trials – NC, FL, GA, CA. Data from 2011 and 2012. All treatments with Induce at 0.125% v/v. Data taken 4-18 days after last application.
Trial Location: San Luis Obispo, CA. Field applications made 14 days before harvest. Fruit harvested on May 8. Evaluations made on May 11. Severity ratings based on % diseased fruit per sample. Sample consists of 10 fruit/plot. All treatments included Organosilicone adjuvant.
Merivon®
Strawberry Rhizopus Control
2013 Southeast Ag

Trial Location: Chula, GA. Variety: Camaros. Rating 5/10/2013
Berries were placed in incubator at 68 degrees Fahrenheit. Photos taken 5 days after harvest.
<table>
<thead>
<tr>
<th>PM Products</th>
<th>Class</th>
<th>Botrytis Products</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI (Various)</td>
<td>3</td>
<td>Captan</td>
<td>M4</td>
</tr>
<tr>
<td>Sulfur</td>
<td>M2</td>
<td>Thiram</td>
<td>M3</td>
</tr>
<tr>
<td>Cabrio &amp; Abound</td>
<td>11</td>
<td>Scala</td>
<td>9</td>
</tr>
<tr>
<td>Pristine</td>
<td>7/11</td>
<td>Switch</td>
<td>9/12</td>
</tr>
<tr>
<td>Quintec</td>
<td>13</td>
<td>Pristine</td>
<td>7/11</td>
</tr>
<tr>
<td>Torino</td>
<td>U6</td>
<td>Elevate</td>
<td>17</td>
</tr>
<tr>
<td><strong>Merivon</strong></td>
<td>7/11</td>
<td>Topsin M</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fontellis</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Merivon</strong></td>
<td>7/11</td>
</tr>
</tbody>
</table>
Fungicide Rotation Tips

• **Use the FRAC numbers to your advantage**
  – Products will work better and longer if they are rotated more often

• **Back to back applications**
  – Although they are allowed this is not optimal

• **Calibrate your application equipment**
  – The best products will not make up for poor applications

• **Use labeled rates**
  – Cutting rates increase the chances for resistance
Merivon® Key Application Information

- **Optimal pH**
  - Wide range just don’t go to the extremes

- **Surfactants**
  - No Restrictions
  - Use spreaders and penetrators rather than stickers

- **Tank mixes**
  - No tank mix restrictions
  - Ok with nutrients, insecticides, miticides and other fungicides
Merivon Key Application Information

- **Water Volumes**
  - 10 GPA Minimum

- **Application Methods**
  - Ground, Air, & Chemigation

- **Rainfast Period**
  - 1 hr. Drying Time

- **Signal Word**
  - Warning
Things To Remember About Merivon

- **Systemic Properties**
  - Continuous redistribution throughout the plant
  - Movement is in the Xylem

- **Broad Spectrum Disease Control**
  - PM, Botrytis, Anthracnose, Rhizopus

- **Post Harvest Disease Control**
  - Protecting the berries in and out of the field.
Thank you for your attention

Questions?
Registered products mentioned in the presentation

- **FUNGICIDES**
  - Elevate ® is a registered trademark of Helena Holding Company
  - Switch® is a registered trademark of Syngenta Crop Protection, LLC
  - Pristine® is a registered trademark of BASF Corporation
  - Captan 80 WDG® is a registered trademark Loveland Products, Inc.
  - Luna Sensation ® is a registered trademark of Bayer Crop Science
  - Fontelis ® is a registered trademark of E. I. DuPont de Nemours & Company
  - Thiram Granuflo ® is a registered trademark of Chemtura Corporation
  - Fracture ® is a registered trademark of FMC Corporation
  - Rally® is a registered trademark of Dow Agro Sciences
  - Quintec® is a registered trademark of Dow Agro Sciences
  - Torino ® is a registered trademark of Gowan Company
  - Tavano® is a registered trademark of Certis, U.S.A.
  - Quadris Top® is a registered trademark of Syngenta Crop Protection, LLC

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