BASF Product & Research Update

Ag. Innovation Symposium, March 26, 2014





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:

| merivon [®] | Active Ingredient Contents | | |
|------------------------|----------------------------|------------|--|
| XEMIUM BRAND FUNGICIDE | % by weight | Lbs/gallon | |
| Fluxapyroxad (7) | 21.26 | 2.09 | |
| Pyraclostrobin (11) | 21.26 | 2.09 | |
| Merivon (total) | 42.52 | 4.18 | |

Maximizing Strawberry Production with Merivon®



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

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

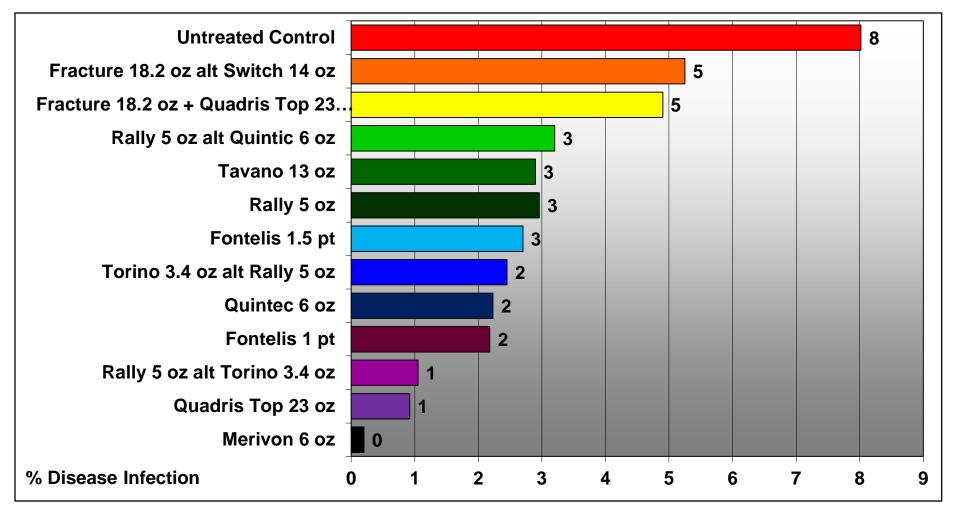




Merivon[®] Strawberry Powdery Midlew Control

2013 UCCE Mark Bolda



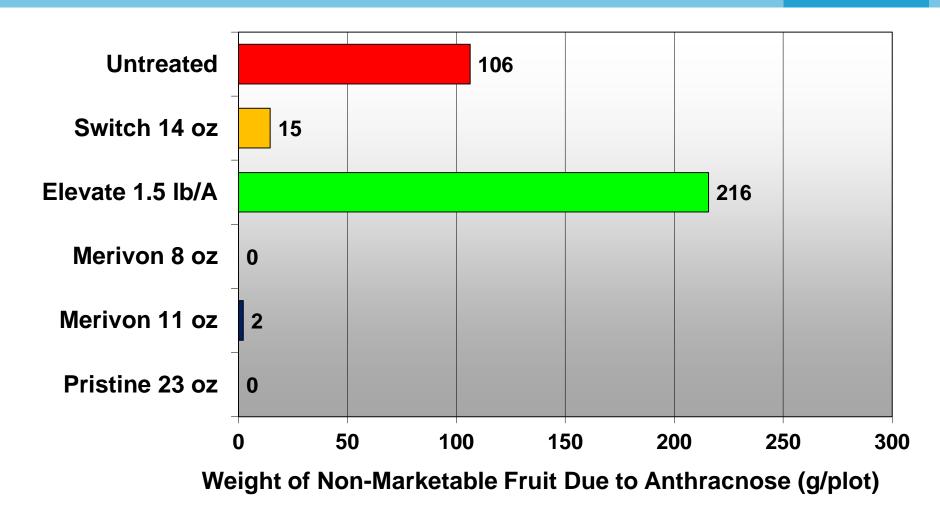


Trial Location: Watsonville, CA. Applications were made on May 30, June 12, 26 and July 10. GPA=150 gal Ratings: disease severity on underside of 10 strawberry leaflets – 0-100% scale. Ratings taken on July 24, 2013.

Merivon[®] Strawberry Antracnose Control

2012 University of North Carolina

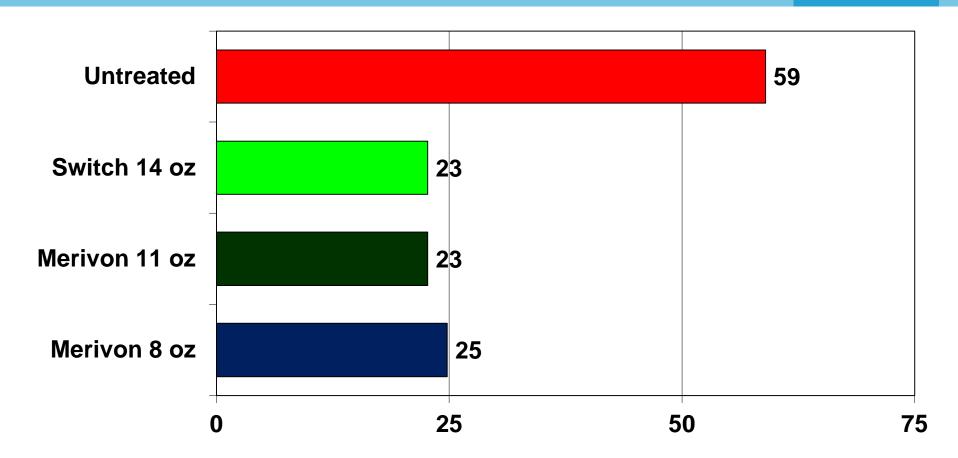




Merivon[®] Strawberry Botrytis Control

2011-2012 Average of 7 US Trials





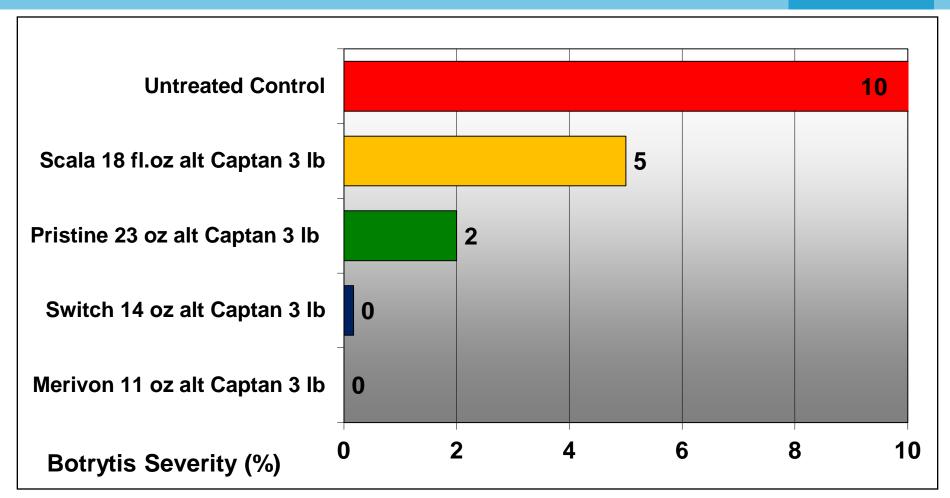
% Disease Incidence

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

Merivon[®] Strawberry Botrytis Control

2012 Pacific Ag Research



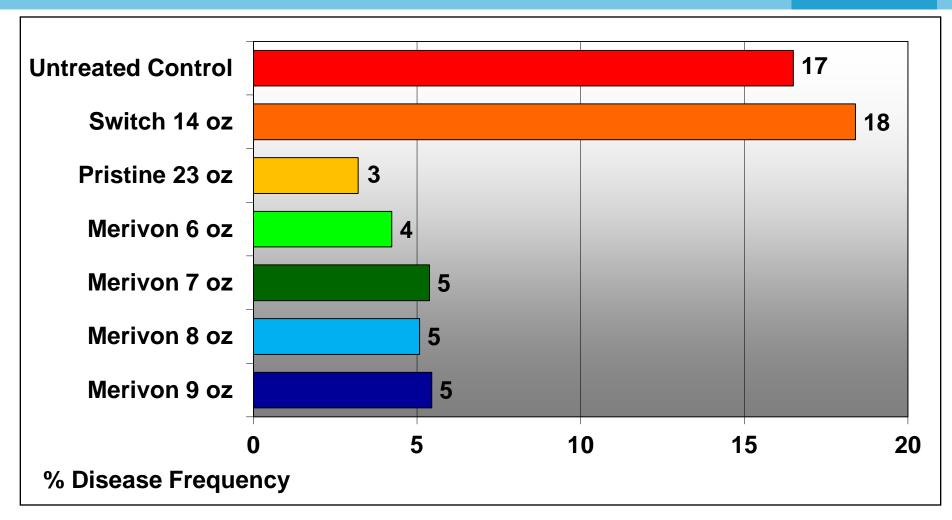


Trial Location: San Luis Obispo, CA. Field applications made 14 days before harvest. Fruit harvested on May 8. Evaluations made on May 11. Severity ratings based on % diseased fruit per sample. Sample consists of 10 fruit/plot. All treatments included Organosilicone adjuvant.

Merivon[®] Strawberry Rhizopus Control

2013 Southeast Ag





Trial Location: Chula, GA. Variety: Camaros. Rating 5/10/2013

Higher Level Disease Control with Merivon

Merivon fungicide research testing results









Control

Pristine 23 oz

Merivon 11 oz

Berries were placed in incubator at 68 degrees Fahrenheit. Photos taken 5 days after harvest

Strawberry PM and Botrytis Options



| | | , | The Chemical Company |
|-----------------|-------|--------------------------|----------------------|
| PM Products | Class | Botrytis Products | Class |
| SI (Various) | 3 | Captan | M4 |
| Sulfur | M2 | Thiram | M3 |
| Cabrio & Abound | 11 | Scala | 9 |
| Pristine | 7/11 | Switch | 9/12 |
| Quintec | 13 | Pristine | 7/11 |
| Torino | U6 | Elevate | 17 |
| Merivon | 7/11 | Topsin M | 1 |
| | | Fontellis | 7 |
| | | Merivon | 7/11 |

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 □ BASF Questions?

Registered products mentioned in the presentation



FUNGICIDES

- Elevate ® is a registered trademarks 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.
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