



# A Broad-Spectrum Fungicide for Disease Control on Apples



## BROAD SPECTRUM DISEASE CONTROL

Powdery Mildew (*Podosphaera leucotricha*), Fire Blight (*Erwinia amylovora*), Flyspeck (*Zygophiala jamaicensis*), Sooty Blotch (*G. polystigmati*, *L. elatius*, *P. fructicola*), and Scab (*Venturia inaequalis*) are persistent problems on apples. Many common fungicides address a handful of these diseases, but Regalia® is active on all five (see Compatibility Chart on reverse). Field trials prove that IPM programs containing Regalia provide control of these diseases.

## HOW REGALIA WORKS

When treated with Regalia, the defense systems of apple trees are 'switched on' to protect against attacking diseases. Research proves that plants treated with Regalia produce and accumulate elevated levels of specialized proteins and other compounds known to inhibit fungal and bacterial diseases. Regalia induces a plant to produce phytoalexins, cell strengtheners, antioxidants, phenolics, and PR proteins, which are all known inhibitors of plant pathogens.

Regalia® induces plants to produce known inhibitors of pathogens

## COMMON REGALIA TANK MIX PARTNERS

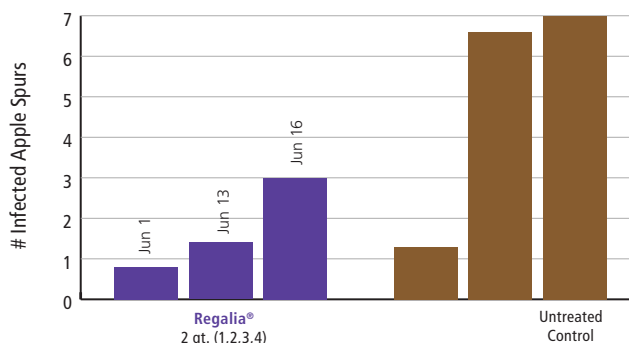
Regalia is compatible with DMIs such as Procure® and Rally®, strobilurins such as Pristine®, Flint®, and many other classes of pesticide chemistry (see Compatibility Chart on reverse). If compatibility with another product is unknown, a jar test should be conducted.

## FEATURES

- Broad-spectrum fungal and bacterial disease control
- Complex mode of action
- Rainfast in 1 hour
- 4-hour REI / 0-day PHI
- Tolerance exempt
- Approved for field and greenhouse applications
- NOP compliant and OMRI approved
- For ground and aerial applications
- Approved for foliar and soil applications

## Fire Blight on Crabapples # Infected Apple Spurs

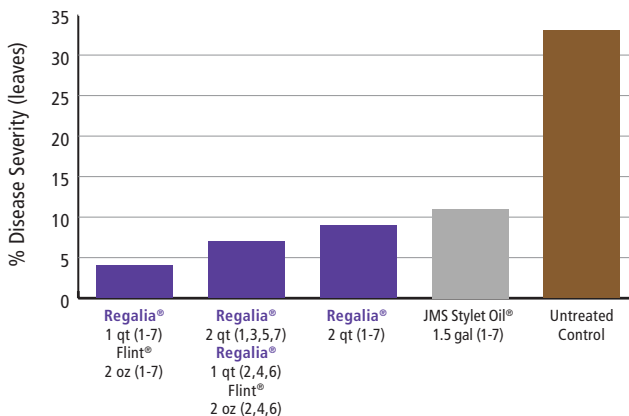
Columbia Ag Research, Hood River, OR



Treatments applied on 1= May 18 (beg. flowering), 2= May 23 (40% bloom), 3= Jun 1 (full bloom), 4= Jun 6 (petal fall)  
Disease evaluated on Jun 1, Jun 13, Jun 16.

## Powdery Mildew on Apples % Disease Severity (Leaves)

K. Yoder, Virginia Tech, Winchester, VA



Treatments applied on 1= Apr 14, 2= Apr 22, 3= May 2, 4= May 11, 5= May 20, 6= Jun 3, 7= Jun 17.

**LABELED DISEASES**

- Flyspeck
- Sooty Blotch
- Powdery Mildew
- Scab
- Fire Blight

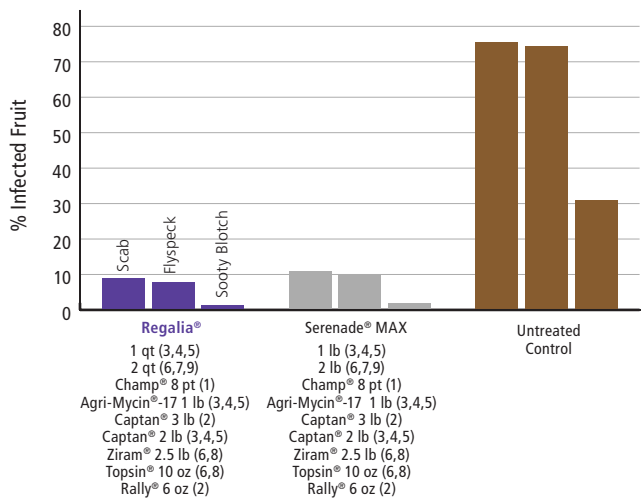
**BEST USE RECOMMENDATIONS**

**Powdery Mildew**—For best results, use Regalia at 1 quart per acre in a tank mix with another product labeled for powdery mildew control during pre-bloom, bloom and petal fall followed by Regalia at 2–4 quarts per acre in rotation with other powdery mildew control products after petal fall. Application interval prior to petal fall is typically 5–7 days and after petal fall 10–14 days.

**Summer diseases including Flyspeck & Sooty Blotch**—For best results, use Regalia at 2–4 quarts per acre in rotation with zinc imethyl-dithiocarbamate/thiophanate-methyl tank mixes on a 10–14 day spray interval.

**Scab, Flyspeck, and Sooty Blotch on Apples**  
**% Infected Fruit**

Agr.Assistance, Ontario, NY



Treatments applied on 1= Apr 4, 2= Apr 27, 3= May 6, 4= May 11, 5= May 14, 6= Jun 2, 7= Jun 17, 8= Jul 7, 9= Jul 29. Disease evaluated on Oct 10.

Always read and follow label directions.

FOR ADDITIONAL INFORMATION, CONTACT YOUR LOCAL RETAILER OR CONTACT MARRONE BIO INNOVATIONS:

Phone 530-750-2800 • Toll Free 877-664-4476 • Email [regalia@marronebio.com](mailto:regalia@marronebio.com)

Product	Active Ingredient	Flyspeck	Sooty Blotch	Powdery Mildew	Scab	Fire Blight	Resistance Risk
<b>REGALIA</b>	Extract of <i>R. sachalinensis</i>	◆	◆	◆	◆	◆	Low
PRISTINE®	Boscalid + Pyraclostrobin	◆	◆	◆	◆		High
CAPTAN®	Captan	◆	◆	◆	◆		Low
SOVRAN®	Kresoxim-Methyl	◆	◆	◆	◆		High
FLINT®	Trifloxystrobin	◆	◆	◆	◆		High
PENNCOZEB®	Mancozeb	◆	◆		◆		Low
ZIRAM®	Ziram	◆	◆		◆		Low
RALLY®	Myclobutanil			◆	◆		Medium
PROCURE®	Triflumizole			◆	◆		Medium

Table 1: Compatability Chart for Common Regalia Tank Mix Partners

**Fire Blight**—For best results, use Regalia at 1 quart per acre as a preventive treatment in a tank mix with other fire blight products. Begin applications at 25% bloom and re-apply when models indicate a fire blight infection period is imminent. Following petal fall, Regalia can be applied at 2–4 quarts per acre in cover sprays in rotation or tank mix with other products for suppression of fire blight shoot strikes. For maximum control a 7-day spray interval is recommended.

**For Organic Production**—Regalia can be applied at 1–2 quarts per acre from pink stage through petal fall and at 2–4 quarts per acre after petal fall in programs that include antibiotics for fire blight control and with sulfur and lime-sulfur for broad spectrum disease control. Early season applications of sulfur and lime-sulfur can be followed by Regalia applied alone in rotation with sulfur or tank mixed with sulfur for control of summer diseases such as powdery mildew, flyspeck and sooty blotch.



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