

# Botrytis bunch rot



# BOTRYTIS FUNGICIDES

- Captan

- ◆ Only works when you don't need it

# BOTRYTIS FUNGICIDES

## ■ Rovral

- ◆ Excellent activity where use has been limited
- ◆ Only Botrytis fungicide much of 1980's and '90's
- ◆ Resistance suspected to be common where use was regular over that period
  - ◆ 20 to 40 total sprays?

# BOTRYTIS FUNGICIDES

## ■ Rovral

### ◆ Absorbed by fruit

◆ Absorption and activity improved with surfactant or oil

◆ Protectant, some post-infection activity

◆ Anti-sporulant activity

# BOTRYTIS FUNGICIDES

## ■ Vangard

- ◆ Introduced to U.S. late 1990's
- ◆ Absorbed by fruit
  - ✦ Protective, some post-infection activities

# BOTRYTIS FUNGICIDES

## ■ Vangard

- ◆ Controls Botrytis only (no other diseases)
- ◆ Consistently good results in our control trials
- ◆ High risk for resistance
  - ✦ Has developed in Europe, not yet in U.S.
  - ✦ Limit use and rotate with unrelated chemistries

# BOTRYTIS FUNGICIDES

## ■ Scala

- ◆ To be introduced to U.S. in 2005
- ◆ Closely related to Vanguard, similar activities
- ◆ For resistance-management purposes, Scala and Vanguard are considered the same thing (don't rotate one with the other)

# BOTRYTIS FUNGICIDES

## ■ Elevate

- ◆ Introduced to U.S. late 1990's
- ◆ Remains on outside of fruit
- ◆ Protective activity only, no post-infection
- ◆ Good results in our trials
- ◆ Moderate (?) resistance risk
  - ✦ Common rotational partner with Vangard

# BOTRYTIS FUNGICIDES

## ■ Elevate

- ◆ Controls Botrytis only
- ◆ Good results in our trials
- ◆ Moderate resistance risk
  - ✦ Common rotational partner with Vangard

# BOTRYTIS FUNGICIDES

## ■ Flint

- ◆ Strobilurin fungicide with other uses
  - ✦ Exc. PM, very good BR, poor DM
- ◆ Good control of Botrytis at 3 oz/A
  - ✦ Compare with 1.5-2 oz/A for PM and BR

# BOTRYTIS FUNGICIDES

## ■ Endura (boscalid)

- ◆ Introduced to U.S. in 2004
- ◆ Also controls PM at lower rate
  - ✦ 4.5 oz/A for PM, 8 oz/A for Botrytis
- ◆ Limited efficacy data, appears effective
- ◆ Is one component of Pristine

# BOTRYTIS FUNGICIDES

- Pristine (boscalid + pyraclostrobin)
  - ◆ Widescale U.S. introduction in 2005
  - ◆ Exc. Against PM, DM, BR at 8 - 10.5 oz/A
    - ✦ Registered for “suppression” of Botrytis at 12.5 oz/A
  - ◆ Effective at 12.5 oz/A in our trials

# SUMMARY POINTS: MANCOZEB

- Phomopsis, Black rot, Downy mildew
- Protective activity only
- Can wash off

# SUMMARY POINTS: CAPTAN

- Phomopsis, Downy mildew
- Protective activity only
- Can wash off

# SUMMARY POINTS: STEROL INHIBITORS (DMI's)

- Powdery mildew, Black rot (Nova, Elite)
- Absorbed by leaves and fruit
  - ◆ Don't wash off
- Post-infection, modest residual protective activity
- Reduced activity vs. PM after prolonged use

# SUMMARY POINTS: STROBILURINS

- Bound into cuticle, some limited absorption
  - ◆ Little wash-off
- Powdery mildew, Black rot, Downy mildew (Abound and Pristine)
- Good protective and anti-sporulant activities, little post-infection
- High risk of PM and DM resistance