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 Vangard, similar activities
- For resistance-management purposes, Scala and Vangard are considered the same thing (don’t rotate one with the other)
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
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
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-sporulat activities, little post-infection
- High risk of PM and DM resistance