Testimony by David Granatstein regarding a petition to remove the expiration date for oxytetracycline from the National List of Allowed Synthetics

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Fire Blight

*Erwinia amylovora*: native to North America (wild hosts: hawthorne, crabapple, …)

- present in Europe, Middle East, New Zealand
- not in S. America, S. Africa, E. Asia, Australia

Bacteria travel in vascular system and can kill entire tree

Vectors: honeybees, insects, birds, rain, wind, hail

Photo: T. Smith
No “resistant” pear or apple varieties
- less susceptible - Red Delicious, Macoun
- Red Delicious - unprotected blossoms suffer 45-65% infection
- all new varieties > susceptible than Red Delicious
- secondary bloom is a major factor

Blight susceptible rootstocks
- ‘Geneva’ series is resistant, but not commercially available

Variety breeding for resistance
- Trans-gene
- Marker assisted breeding
Fire Blight Control

1950s  streptomycin first used
1970s  oxytetracycline registered as alternative to strep
1980s  **biocontrol** research began and has continued
1990s  BlightBan A506 (*Pseudomonas fluorescens*)
       Serenade (fermentation products from *Bacillus subtilis*)
2000s  *Pantoea* strains: BlightBan C9-1 registered but not marketed; Bloomtime Biological
2010s  Blossom Protect (yeast *Aureobasidium pullulans*) from German research; US EPA registration expected 2012?
Likely response of WA organic growers to loss of antibiotics. Based on survey of 47 and 60 people.

- Little or no effect
- Reduce acres apple pear
- Reduce susceptible apple
- Exit organic apple/pear

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<th>Response</th>
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- Ability to control fire blight w/o antibiotics in a severe (>700-800) infection year
  - Yes 18%
  - No 82%
Request that the NOSB remove the expiration date from tetracycline and reinstate this product on the national list for continued sunset review.

Risk: “Under optimal conditions, it can destroy an entire orchard in a single growing season” (Wikipedia)

'Pink Lady' apples infected with fire blight