

**National Organic Standards  
Board meeting  
Seattle, WA -- April 26, 2011**

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



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



Photo: T. Smith

***Dead rootstock***

Blight susceptible rootstocks

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

Variety breeding for resistance

- Trans-gene
- Marker assisted breeding



Photo: T. Smith

***Early symptoms of fire blight on pear***

# 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?

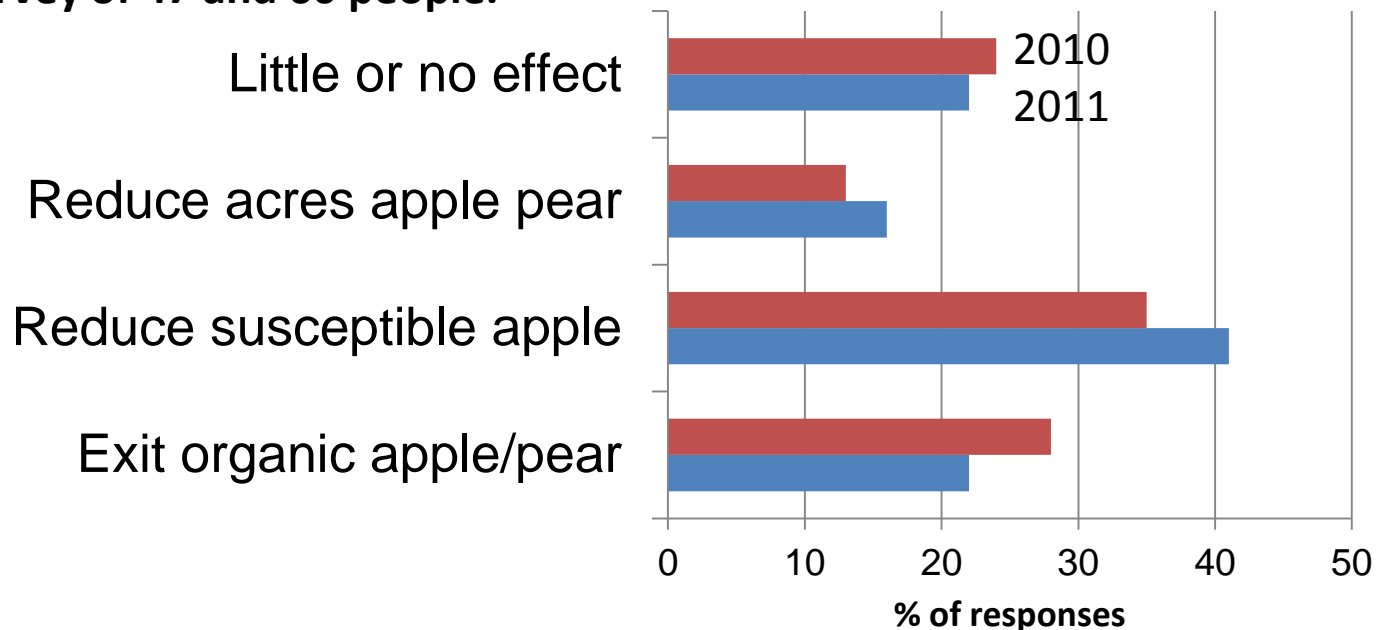
"COUGARBLIGHT 2010 EZ-F" FIRE BLIGHT INFECTION RISK MODEL- (Fahrenheit)									
Ver 4.1	WEATHER		TEMPERATURE RISK			INFECTION RISK RE: BLIGHT HISTORY			WET
DATE	DAILY HIGH TEMP. F	Wetting: MEASURED RAIN OR 2+ HRS DEW = 0.01	DAILY Temp. Risk Value	Apples: 4- DAY Total Temp. Risk Value	Pears: 5- DAY Total Temp. Risk Value	1. No fire blight in your neighborhood last year. See cell M14 for thresholds.	2. Fire blight occurred in your neighborhood last year. (Default setting)	3. Fire blight is now active in your neighborhood.	Rain or Dew Infect
8-Apr	0	0	0	0	0	LOW	LOW	CAUTION	Flo
9-Apr	0	0	0	0	0	LOW	LOW	CAUTION	Flo
10-Apr	0	0	0	0	0	LOW	LOW	CAUTION	Flo

# Organic Grower Response to Loss of Oxytetracycline

**Ability to control fire blight w/o antibiotics in a severe (>700-800) infection year**

<b>Yes</b>	<b>18%</b>
<b>No</b>	<b>82%</b>

Likely response of WA organic growers to loss of antibiotics. Based on survey of 47 and 60 people.



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

**Request that the NOSB remove the expiration date from tetracycline and reinstate this product on the national list for continued sunset review.**

**‘Pink Lady’ apples infected with fire blight**

Photo: T. Smith