

Fire Blight Alternatives Funding

Summary: This summary was drafted in response to the NOSB comments suggesting that the tree fruit industry had not invested in finding non-antibiotic controls for fire blight. In the past 20 years, over \$600,000 in grower funds have been spent on research for non-antibiotic controls and practices that would be organic compliant. The USDA-ARS supports at least three key research programs on alternative fire blight control (Wenatchee, WA; Kearneysville, WV; Geneva, NY), with a cumulative investment of over \$5 million. Other USDA grants funds on the topic have totaled over \$1 million.

Ken Johnson, Oregon State University, Corvallis, OR. WA Tree Fruit Research Commission funded research from 2005-2012 on biology of *Erwinia*, integrated strategies, non-antibiotic controls, rapid field test for fire blight detection, \$160,000. USDA funding for similar work, \$123,000. USDA OREI grant for organic fire blight control awarded in 2011, \$475,000.

Tim Smith, Washington State University, Wenatchee, WA. Received >\$100,000 over past 10 years for testing fire blight alternative products, funded by growers (commission). Also his time in upgrading the COUGARBLIGHT model (state funding of his salary).

Virginia Stockwell, Oregon State University, Corvallis, OR. Biology of fire blight, biocontrol strategies. Various funding sources, >\$100,000.

Larry Pusey, USDA-ARS, Wenatchee, WA. Entire program is focused on biocontrol of fire blight. Estimated investment of \$250,000/yr for past 10 years.

Jay Norelli, USDA-ARS, Kearneysville, WV. Research focus on non-antibiotic, non-fungicide alternatives, including fire blight. All effort is on identifying sources of fire blight resistance, development of molecular markers to allow for marker-assisted selection of fire blight resistance in breeding programs and studying host-pathogen interactions to insure that resistance will be durable. ARS support for the program is ca. \$250,000/yr. Grower support last year was \$9,000.

Keith Yoder, Virginia Tech, Winchester, VA. Research funding of \$36,000 over the past decade on non-antibiotic alternatives, mostly from grower sources.

George Sundin, Michigan State University, E. Lansing, MI. ~\$50K from growers and industry over the past 8 years for non-antibiotic controls. USDA Special Grant funding on fire blight.

Broc Zoller, CA. The California Pear Advisory Board has spent more than \$100,000 of grower funds over the past decade for research on biocontrols, models, and other organic compliant topics. Over the past 27 years, the CA Pear Board has spent over \$325,000 of grower funds on research for non-antibiotic control that would be organic compliant. Additional grower funds have been spent by the California Apple Commission.

New York – no dollar amount. Extensive work by Herb Aldwinkle. USDA ARS rootstock breeding program is based there, with Gennaro Fazio who developed the ‘Geneva’ rootstocks.

■ *Drafted by Organic Tree Fruit Industry Work Group; November 2011.*