



Actigard plant activator in pome fruit

Trusted for many years to boost vegetable plants' natural defense mechanisms against bacteria, viruses and fungi, Actigard® plant activator has gained support from many universities as an effective and proven tool for fire blight management in pome fruit.

By inducing protein production in the plant, Actigard helps the plant protect itself from infection. Similar to a vaccination, Actigard triggers the natural defense system of the plant. Because Actigard has no direct effect on the pathogen itself, it is not a stand-alone product; however, research shows proven benefits to using Actigard in a program with traditional antibiotics.

Active Ingredient	Mode of Action	Group Name	FRAC Code
Acibenzolar-S-methyl	Systemic activated resistance	benzo-thiadiazole BTH	P1

Technical features

- Unique mode of action with no known cross-resistance to other products
- Effective at very low use rate of 2 oz/A (0.031 lbs ai/A)
- Highly systemic; offers movement throughout the tree
- Absorbed quickly, demonstrating excellent rainfastness
- Flexible application methods
- Extends protection of antibiotics
- Demonstrated crop safety
- Foundation fungicide in spray programs with other modes of action

Disease suppression

- Fire blight – *Erwinia amylovora*

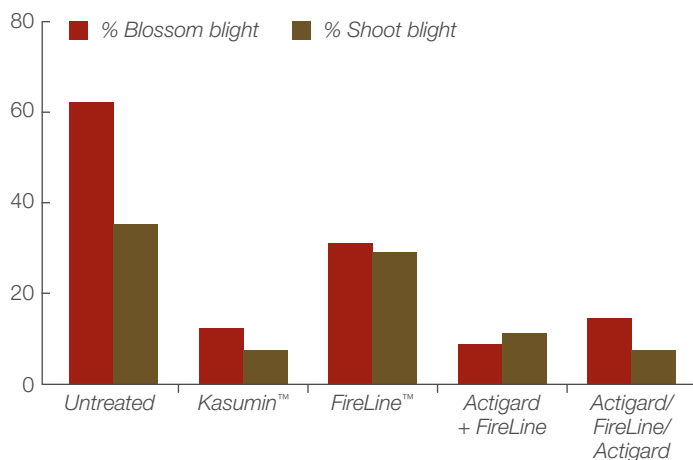
Utility of Actigard in fire blight management programs

Actigard can enhance fire blight management in several ways, as demonstrated by data from small plots and large-scale grower trials under an Experimental Use Permit:

- Helps maintain the utility of the antibiotics either by replacing a spray or reducing disease level/inoculum
- Limits canker expansion (i.e. a therapeutic application)
- Helps to protect the tree for the first eight years
- Protects the graft union in young trees to prevent rootstock blight (drip irrigation will likely assist with protection as well)
- Protects nursery stock (painting the grafts helps protect the young trees)



Trial results: Actigard reduces occurrence of blossom and shoot blight



Source: George Sundin/Michigan State University Extension, Department of Plant, Soil, and Microbial Sciences: 2014 – Treatments applied 20, 80, and 100% bloom

Trial results: Actigard reduces appearance of fire blight strikes on trees

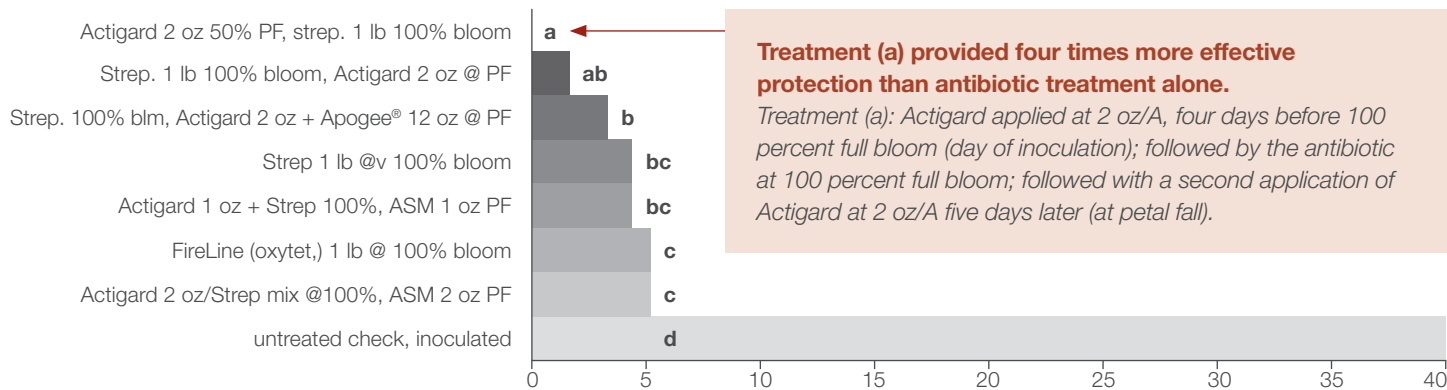


Source: George Sundin/Michigan State University Extension, Department of Plant, Soil, and Microbial Sciences.

*Circles indicate fire blight strikes

Trial results: Actigard treatment prevents infection

2013 Fire Blight Control Trial – Pear Plot Percent Infection of Total Inoculated Flowers**



Treatment (a) provided four times more effective protection than antibiotic treatment alone.

Treatment (a): Actigard applied at 2 oz/A, four days before 100 percent full bloom (day of inoculation); followed by the antibiotic at 100 percent full bloom; followed with a second application of Actigard at 2 oz/A five days later (at petal fall).

**Note: Inoculated w/ strep sensitive bacteria.

Source: Tim Smith/Washington State University Extension



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