

Table 1. Example fire blight management plans for conventional or organic apple growers.

Apples				
Conventional		Organic		
Cut and remove fire blight cankers. Good sanitation is essential for successful fire blight management.				
Low to Moderate risk	High Risk high value varieties history of blight	Easy to thin varieties	Hard to thin varieties / short bloom period	Hard to thin varieties / long bloom period
<ul style="list-style-type: none"> • Watch the model. • If an infection event is projected apply an antibiotic within 24 hours before wetting. • Repeat every 2-3 days during warm wet risk periods to cover newly opening flowers rotating FRAC.^d • Continue weekly apps 1-2 weeks post petal fall.^e 	<ul style="list-style-type: none"> • Use antibiotic mixes: oxytetracycline + kasugamycin or antibiotic + Actigard.^d • Cover every 2-3 days during warm conditions during bloom rotating FRAC.^d • Acidify spray tanks to 5.5 to improve antibiotic efficacy. New research shows to 4.0 may improve further.^b • Continue weekly apps 1-2 weeks post petal fall.^e 	<ul style="list-style-type: none"> • Blossom protect/ buffer protect early • Lime sulfur (+ oil) • Blossom Protect/ Buffer Protect • Depending on the model and cultivar russet risk soluble copper • Petal fall + 1-2 weeks Serenade Opti (most fruit safe) or 2% lime sulfur (red apples).^{c, f} 	<ul style="list-style-type: none"> • Lime sulfur (+ oil) 2-3 applications. • Depending on the model and cultivar russet risk soluble copper.^g • Petal fall + 1-2 weeks Serenade Opti (most fruit safe) or 2% lime sulfur (red apples).^c 	<ul style="list-style-type: none"> • Lime sulfur (+ oil). • Blossom Protect + Buffer Protect • Lime sulfur + oil. • Blossom Protect + Buffer Protect. • Depending on the model and cultivar russet risk soluble copper. • Petal fall + 1-2 weeks Serenade Opti (most fruit safe) or 2% lime sulfur (red apples).^c

^a Remember Blossom Protect yeast need about 12 hours to grow on the flower to protect blooms before a wetting event.

^b Spray tank acidification has been most significant for oxytetracycline products (e.g., Mycoshield).

^c Lime sulfur at this timing can interfere with oil sprays for mites.

^d Rotate. Rotation is necessary for resistance. Rotate as necessary to comply with application intervals for individual products. Do not apply Actigard at closer than 7-day interval (label restriction).

^e Kasumin. Do not make more than 4 applications of KASUMIN 2L per year. Post petal fall restriction has been removed (March 2021).

^f Blossom Protect+ Buffer Protect, then Previsto (full bloom), then Serenade Opti/Aso (petal fall) best organic combination in 13 trials in Oregon at 83% relative control (Johnson) similar to antibiotics.