

College of Agriculture, Food and Environment Cooperative Extension Service

Plant Pathology Fact Sheet

PPFS-FR-T-19

Commercial Apple Fungicide Spray Schedule Worksheet & Sample Spray Guides

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SPRAY SCHEDULE WORKSHEET

Growth Stage	Target Pathogen	Fungicide	FRAC
Dormant to Silver Tip	FB	(Use weather prediction models)	
Green Tip	S		
Half-Inch Green	S		
Tight Cluster	S, R, PM		
Pink	FB, S, R, PM		
Bloom	FB, S, R, PM		
Petal Fall	FB, S, R, PM		
First Cover	S, R, PM, FR, SB/FS	(Begin CaCl sprays)	
Second Cover	S, R, PM, FR, SB/FS		
Third Cover	S, FR, SB/FS	(No mancozeb or SI past second cover)	
Fourth Cover	S, FR, SB/FS		
Fifth Cover	S, FR, SB/FS		
Sixth Cover	S, FR, SB/FS		
Seventh Cover	S, FR, SB/FS	(Remember PHI)	

Diseases/Target Pathogens

FB – Fire blight, FR – Fruit rots, PM – Powdery mildew, R – Rust, S – Scab, SB/FS – Sooty blotch/Fly speck

Agriculture & Natural Resources • Family & Consumer Sciences • 4-H/Youth Development • Community & Economic Development

SAMPLE SPRAY SCHEDULE

Growth Stage	Target Pathogen	Fungicide	FRAC
Dormant to Silver Tip	FB	Copper	М
Green Tip	S	Mancozeb or Vanguard	M or 9
Half-Inch Green	S	Mancozeb or Vanguard	M or 9
Tight Cluster	S, R, PM	Rally or Indar	3
Bloom	FB, S, R, PM	Mancozeb or Vangard (Antibiotics per weather prediction models; Growth regulator to manage shoot blight)	M or 9
Petal Fall	FB, S, R, PM	Mancozeb or Fontelis (Antibiotics until all petals have fallen)	M or 11
First Cover	S, R, PM, FR, SB/FS	Rally + Mancozeb (Begin CaCl sprays)	3 + M
Second Cover	S, R, PM, FR, SB/FS	Flint	11
Third Cover	S, FR, SB/FS	Topsin M + Captan (No mancozeb or SI past second cover)	1 + M
Fourth Cover	S, FR, SB/FS	Fontelis or Flint or Captan	7 or 11 or M
Fifth Cover	S, FR, SB/FS	Topsin M + Captan	1 + M
Sixth Cover	S, FR, SB/FS	Fontelis or Flint or Captan	7 or 11 or M
Seventh Cover	S, FR, SB/FS	Topsin M + Captan (Remember PHI)	1 + M

Diseases/Target Pathogens

FB – Fire blight, FR – Fruit rots, PM – Powdery mildew, R – Rust, S – Scab, SB/FS – Sooty blotch/Fly speck

SAMPLE SPRAY SCHEDULE FOR ORCHARDS WITH A HISTORY OF FRUIT ROTS ¹

Growth Stage	Target Pathogen	Fungicide	FRAC
Dormant to Silver Tip	FB	Copper	М
Green Tip	S	Mancozeb or Vanguard	M or 9
Half-Inch Green	S	Mancozeb or Vanguard	M or 9
Tight Cluster	S, R, PM	Rally or Indar	3
Bloom	FB, S, R, PM	Mancozeb alone or Vangard + Mancozeb (Antibiotics per weather prediction models; Growth regulator to manage shoot blight)	M or 9 + M
Petal Fall	FB, S, R, PM	Mancozeb alone or Fontelis + Mancozeb (Antibiotics until al petals have fallen)	M or 11 + M
First Cover	S, R, PM, FR, SB/FS	Rally + Mancozeb (Begin CaCl sprays)	3 + M
Second Cover	S, R, PM, FR, SB/FS	Flint + Mancozeb or Flint + Captan (Note 66 day PHI for Mancozeb) ²	11 + M
Third Cover	S, FR, SB/FS	Topsin M + Captan (No Mancozeb or SI past second cover)	1 + M
Fourth Cover	S, FR, SB/FS	Fontelis + Captan or Flint + Captan	7 + M or 11 + M
Fifth Cover	S, FR, SB/FS	Topsin M + Captan	1 + M
Sixth Cover	S, FR, SB/FS	Fontelis + Captan or Flint + Captan	7 + M or 11 + M
Seventh Cover	S, FR, SB/FS	Topsin M + Captan (Remember PHI)	1 + M

Diseases/Target Pathogens

FB – Fire blight, FR – Fruit rots, PM – Powdery mildew, R – Rust, S – Scab, SB/FS – Sooty blotch/Fly speck

Notes

¹ Fruit rots include bitter rot, black rot, and white rot

² Continue to use Mancozeb as long as possible, depending on the apple cultivar's predicted harvest date; Mancozeb has a 66 day PHI. Continue with Captan until harvest.

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