

Table 17. Spray Schedules for Pest Control on Grapes.

Time to spray	Pesticide Required		Insects and diseases most likely to be a problem at the specific time (first column) during growing season.
Bud swell, before buds show green	<i>Insecticide</i> Sevin or methoxychlor or rotenone		Insecticide needed only if flea beetles or climbing cutworms are usually a problem (e.g., swollen buds have holes or are eaten).
New growth 4 to 6 inches long	<i>Fungicide</i> mancozeb or myclobutanil or ferbam or captan		Fungicide for control of black rot, Phomopsis cane and leaf spot, powdery mildew, and downy mildew. Myclobutanil is excellent for control of black rot and powdery mildew, but will not control Phomopsis or downy mildew. Mancozeb, Ferbam and Captan are good for black rot, downy mildew and Phomopsis control, but will not control powdery mildew.
New growth 10-15 inches long or 7-10 day after first spray.	<i>Fungicide</i> same as above		Diseases same as above
Pre-bloom Just before first blossoms open	<i>Fungicide</i> same as above <i>Insecticide</i> Sevin or Imidan or methoxychlor or diazinon*		Diseases same as above. Insecticide needed only where grape berry moth is a persistent problem.
Bloom (usually in early June)	<i>Insecticide</i> Same as pre-bloom		In sandy areas where rose chafer is a problem, an insecticide may be needed.
Post-bloom (after all blossoms have fallen)	<i>Fungicide</i> Same as above	<i>Insecticide</i> Same as bloom	Fungicide for black rot, powdery mildew, and downy mildew. Insecticide for grape berry moth, leafhoppers and rose chafer. NOTE: Mancozeb cannot be used within 66 days of harvest.
	NOTE: In wet weather, do not wait until all blossoms have fallen, especially if black rot is a problem. Spray fungicide every 7-14 days.		
First cover 10 days after post-bloom	<i>Fungicide</i> captan or ferbam or miclobutanil	<i>Insecticide</i> same as pre-bloom <i>Miticide</i> Kelthane	Fungicides for control of black rot, powdery mildew, and downy mildew. Miclobutanil will not control downy mildew. Insecticides for control of grape berry moth, leafhoppers, and Japanese beetle, if present. Miticide for mites, if present.
Second cover 10-14 days after first cover	Same as first cover		Same as first cover
Third cover 10-14 days after second cover	<i>Fungicide</i> Same as first cover	<i>Insecticide</i> Same as pre-bloom	Fungicide for control of powdery and downy mildew. Insecticide for grape berry moth, and Japanese beetle.
Fourth cover 10-14 days after third cover	<i>Fungicide</i> Same as first cover	<i>Insecticide</i> Same as pre-bloom	Same as third cover
	Always observe pre-harvest intervals.		
SPECIAL NOTE: Black Rot - Berries are no longer susceptible to black rot when they reach about 6 percent to 8 percent sugar content (usually when they start to change color).			

*diazinon might be unavailable in some retail shops because its manufacturer is phasing it out for home garden use over the years 2001–2005.