



CHAPTER 8

Major risks that confront grape growers include extremes of both heat and cold - including untimely frost in the spring and fall, very heavy rain storms, excessive heat, and drought.

Managing Severe Weather Risks

Although California generally has an excellent climate for growing grapes, severe weather conditions occasionally take a toll on vineyards and other agricultural production systems. Major risks that confront grape growers include extremes of both heat and cold – including untimely frost in the spring and fall, very heavy rain storms, excessive heat, and drought. Although these problems do not occur annually, and are somewhat rare, they can cause major anxieties and even fear among growers.

Some growers may feel that they are victims of extreme weather events, and that there is nothing they can do to avoid such risks. However, as noted in the table below, there are several ways that growers can be prepared for extreme weather events, and to prevent certain weather-related losses, or at least reduce the anxiety and stress. Buying crop insurance is also a way to offset losses, as noted in Chapter 9.



References and Resources

California Sustainable Winegrowing Alliance, Wine Institute, and California Association of Winegrape Growers (2006). Code of Sustainable Winegrowing Practices Self-Assessment Workbook.

Risk	Method to Mitigate/ Prevent Risks	Comments & Information
Extreme or unusual weather conditions	Be prepared: keep track of weather through Online Weather monitoring service and forecasting	Information available online from NOAA, other climate data and services*
Humidity and rain storms	Adcon weather stations and similar weather monitoring technologies	See Chapter 1 of manual about weather stations for disease monitoring
Frost	Temperature monitoring and alarm system – warning for frost danger	This is crucial in any area that has frost risk
Frost	Frost protection: installing overhead sprinklers (ensure adequate coverage & regularly maintain the system)	Good option, if water is abundant in your area
Frost	Frost protection: wind system	Second option, especially if water is limited
Flooding	Improved drainage system and/or watershed restoration	See chapters on water management & ecosystems in SWP Workbook
Flooding	Erosion control practices, e.g., straw bales, filter strips, cover crops, etc.	See Chapter 2 of this manual
Extreme heat	Heat “cooling” with sprinklers	Possible under extreme heat, if water is available
Extreme heat	Increase drip irrigation volume if possible	See Chapter 1 of this manual
Frost, flooding, heat, drought	Crop Insurance policies	See Chapter 9 of this manual

* NOAA: <http://www.ncdc.noaa.gov/oa/esb/?goal=weather&file=users/business/agriculture>