

STEP 2: DESCRIBE YOUR CLIMATE RISK



Changes in seasonal weather patterns and more frequent and intense weather extremes create new risks in farming. Although these weather changes are regional, the way in which these changes may show up in any particular place depends on local conditions. In this step, you are invited to learn more about how seasonal weather patterns in your region have changed and are expected to change in the future. You can use this knowledge to understand new weather-related threats and opportunities that are likely to show up on your farm.

Some of the local conditions that determine your climate risk include soil and water quality; crop and livestock health; landscape patterns (including topography, slope and aspect, surface water drainage, and biodiversity) both on the farm and in the surrounding area; the susceptibility of crops and livestock to weeds, pests, and diseases; the presence of species that may become more difficult to manage under future climate conditions; current infrastructure and equipment; current access to technology or markets; and other factors that may increase or decrease your ability to successfully manage change. For example, a field will have greater vulnerability to expected increases in flooding rains if it is located in a flood plain, is on a steep slope, has poor soil quality, or lacks vegetative cover for long periods of the year. As another example, tree fruit crops will likely have greater vulnerability to warmer winters or late spring frosts than vegetable crops and livestock.

To complete this step, go to the companion website and download the SARE Bulletin titled *Cultivating Climate Resilience on Farms and Ranches* (included in the Step 2 resources). Review the [Introduction](#) and [Understanding Climate Risk](#) sections to learn more about current and expected weather changes in your region and how these changes are likely to affect the soil, water, crops, livestock, and people on your farm. Other kinds of information about changing weather patterns provided by agricultural and community organizations in your region are also included in the Step 2 resources.

After reviewing these materials, print out and complete Worksheet 3 by selecting the weather-related threats to your operation that create the greatest management challenges on your farm. Include both long-standing weather challenges typical of your region and changing weather patterns (e.g., earlier but more variable spring weather or a longer growing season) or specific weather events (e.g., more extreme rainfall). For each threat circled in the first column, complete the rest of the row to note the farm resources most at risk and your current risk management strategy. Then, take a minute to step back and see if you can think of any new opportunities that may come along with this threat. For example, many vegetable growers managing diversified operations have taken advantage of the lengthening growing season by successfully managing the increased risk of more variable spring weather with season extension practices. Be sure to complete Worksheet 3 before moving on to Step 3.



Worksheet 3: Identify Key Weather Threats

Think back over the last decade or so about the weather-related threats that create the most difficult management challenges on your farm. Review the weather threats listed in the first column, and circle those that routinely increase management time or production costs, decrease product quality, or degrade farm assets. For each weather threat that you circle, complete the rest of the row by listing the assets (e.g., crops, livestock, soil, water, and labor) most at risk from that threat, your current risk management practices, and any new opportunities that may be created by that weather-related threat.

Weather Threats	Assets Most at Risk	Current Risk Management Practices	New Opportunities
Variability in Precipitation			
Excess Moisture			
Flooding			
Dry Periods			
Drought			
Variability in Temperature			
Length of Growing Season			

Worksheet 3 (Continued)

Weather Threats	Assets Most at Risk	Current Risk Management Practices	New Opportunities
Warmer Temperatures			
High Temperatures and Heat Waves			
Cooler Temperatures			
Cold Temperatures and Cold Waves			
Frost/Freeze			
Hail			
Wind			
Other			