

INTRODUCTION

Changing seasonal weather patterns and more frequent and intense weather extremes accompanying climate change are increasingly important considerations for farm business management. This workbook was developed through more than a decade of collaboration with farmers managing diversified operations, producing specialty crops and pasture-based livestock products for local and regional markets throughout the U.S. These farmers wanted to find a better way to account for the new risks and opportunities created by changing seasonal weather patterns on their farms in both their short-term and long-term business planning.

This workbook and the resources available on its **companion website**, [RegenerativeFarmResilienceGuide.org](https://www.regenerativefarmresilienceguide.org), will guide you through a five-step process designed to help you ...

- Learn more about the potential impacts of increasing climate variability and change on your agricultural operation,
- Evaluate climate resilience options that will best support your farm and family goals by reducing risks and capturing new opportunities associated with changing climate conditions, and
- Make a plan to implement selected climate resilience strategies and evaluate their effectiveness over time.

You can use this workbook to integrate climate resilience considerations into your annual operations plan and into your longer-term strategic planning through an adaptive whole-farm management strategy that draws on your experience and expertise as a farm manager. The materials developed in this planning process will also be useful for documenting the management decisions to reduce climate risk and enhance the climate resilience of your farm. This workbook does not make recommendations, provide decision-making criteria, or offer locally appropriate direction for implementing climate resilience strategies.

Five Steps to Your Climate Resilience Plan



Step 1: Business Goals & Current Position

This step invites you to gather and record information about your farm and family assets, including the goals and current status of your farm business, using two well-established business assessment and planning tools: the Holistic Goal and the strengths, weaknesses, opportunities, and threats (SWOT) assessment. Because these tools serve as an important foundation for all subsequent decisions needed to complete a climate resilience plan for your farm business, it is very important to take some time to work with family members and other stakeholders in your farm to complete this step.



Step 2: Site-Specific Climate Risk

Changes in seasonal weather patterns and more frequent and intense weather extremes create new risks and opportunities in farming. In this step, you are invited to learn more about how weather patterns in your region have changed and are expected to change in the future. You are also invited to draw on your own experience and that of other farmers to understand how these regional weather changes are likely to show up on your farm now and in the future.



Step 3: Effective Climate Resilience Strategies

To address the weather-related threats or opportunities associated with changing climate conditions, it may be necessary to adjust existing practices, try completely new practices, or even transition your operation to a completely different production system. In this step, you are invited to learn more about the principles of cultivating whole-farm climate resilience and the wide range of practices you can use to promote high response, recovery, and transformation capacity in your operation.



Step 4: Best-Fit Climate Resilience Practices

This step invites you to learn more about the different practices associated with each climate resilience strategy that you identified in Step 3 and to do the research necessary to select the practices that are best suited to your farm. For example, if you want to improve soil health as a climate resilience strategy, you may need to research best soil health practices for your region, in your production system, and in the soil series present on your farm.



Step 5: Your Climate Resilience Plan

In this final step, you are invited to dig deeper into the specific practices you selected in Step 4 to gather the site-specific information you need to make a detailed implementation plan for each practice. This implementation plan should include the steps required to implement each practice, your timeline for implementation, and a list of observations you can make to evaluate the effectiveness of your plan. You will find it useful to review your climate resilience plan during annual operations planning and review and in longer-term strategic planning.

This five-step process brings together three farm management strategies that are widely recognized for their utility in supporting the success of diversified farm businesses over time and in rapidly changing social and environmental conditions:

- **Adaptive management** is a goal-oriented approach that was first developed to promote the health of natural resources over time in changing conditions. This workbook uses **whole-farm planning**, an adaptive management strategy developed specifically for use by farmers and ranchers working to maintain successful farm businesses over the long term.
- **Resilience thinking** expands traditional agricultural risk management, which typically depends on technological and financial solutions (e.g., irrigation, pesticides, and crop insurance) to reduce losses associated with more frequent and intense droughts or increasing pest and disease pressure. Resilience thinking invites farmers to think more broadly about how to manage the whole farm to reduce risk using practices that promote high response, recovery, and transformation capacity.
- **Regenerative agriculture** draws on a special group of farming practices that promote farm business success by cultivating ecological, social, economic, and spiritual health on the farm and in the surrounding community. These practices (e.g., low or no till, crop diversification, the integration of crops and livestock, pasture-based livestock production, and agroforestry) have a long history of success throughout the world. They have recently been recognized as a “climate solution” because, along with many other resilience benefits, these practices tend to reduce or eliminate on-farm greenhouse gas emissions and increase on-farm carbon capture and storage.

This workbook draws on two USDA resources to guide your development of a regenerative whole-farm climate resilience plan:

[*Cultivating Climate Resilience on Farms and Ranches*](#) introduces new challenges that changing weather patterns pose to farmers and ranchers in seven regions across the U.S., explains climate risk and resilience in agriculture, highlights some widely used adaptation practices among farmers managing diversified operations and pasture-based livestock producers, and introduces a new climate resilience toolbox for farmers and ranchers.

[*Adaptation Resources for Agriculture*](#) introduces an adaptive planning process and offers a menu of eight adaptation strategies that are proven to reduce the risks associated with increasing temperatures, more variable weather patterns, and more frequent and intense weather extremes through practices that cultivate healthy crops, livestock, and soil and water resources; manage fields and the farm as part of a larger landscape; and prepare the farm for future climate conditions.

Before getting started, it will be helpful for you to gather and review some basic information about your operation, such as business and conservation plans, maps, and production and land management records from at least the last five years. Some of the five steps recommend discussions involving all stakeholders in your farm business. You may need to consult with trusted financial, production, management, and conservation advisors to identify and make use of any additional information needed to complete each worksheet. As you work through each step, you may also find it helpful to review the climate resilience planning example of Dreamtime Farm included at the end of this guide.

Plan to spend at least 25 hours working through the five steps to create your climate resilience plan. Though you may be tempted skip a step along the way, it is important to the success of your plan that you move through all five steps in the order they are presented. Do your best to complete each step before moving on to the next, but expect to go back to add information or clarify your responses in earlier steps as you work toward completing your plan.

Once you have completed all five steps, you will have a set of best-fit climate resilience practices for your operation and a detailed implementation and monitoring plan that you can use to cultivate the climate resilience of your farm.

