



# Building Water Resilience: Soil Conservation

Changes in the timing and availability of water resources pose significant challenges to irrigated and dryland agriculture across the Northwest. Anticipating and adapting to change can help reduce negative impacts.

Below are several resources that provide information on water challenges and how to address them. You will also find links to USDA programs that provide technical and financial assistance to adopt management changes and conservation practices.



**Applying Soil Health Management Systems to Reduce Climate and Weather Risks in the Northwest.** This document highlights how climate change will increase challenges to soil health and how tech transfer specialists can talk to producers about conserving their soil resources.



**Advancing Sustainable Agriculture in the Pacific Northwest: Conservation Tillage Systems.** Learn about how minimum tillage and no-till systems can reduce water losses and improve soil water storage capacity.



**Advances in Dryland Farming in the Inland Pacific Northwest: Conservation Tillage Systems.** Find out how conservation tillage can improve soil quality and water retention in the dryland areas of the inland Pacific Northwest.



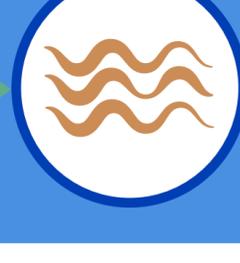
**Cover Crops at Work: Increasing Infiltration.** This one-page fact sheet discusses the broad benefits of protecting and improving soil health, with a focus on improved water infiltration.



**Cover Crops at Work: Increasing Soil Organic Matter.** Find out how improving your soil organic matter also helps improve water quantity and quality in your soil and crops.



**Cover Cropping to Improve Climate Resilience.** This fact sheet highlights three key ways that cover cropping can help improve water resources and build resilience to climate change.



**Filter Strips.** This two-page resource from the Natural Resource Conservation Service explains the water quality benefits of implementing filter strips in agriculture operations by slowing runoff.



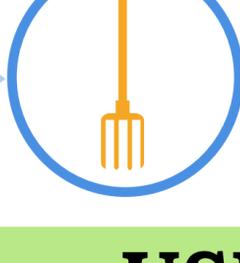
**Agricultural Composting and Water Quality.** Find out how to add on-farm compost to your soil improvement strategy and how it can improve soil water content and water quality.



**Biochar.** Learn about biochar as a soil amendment and how it can be used to improve soil moisture.



**Pacific Northwest Biochar Atlas.** This regional resource helps to connect biochar producers and users. You will find case studies detailing the cultivation techniques used and water-related benefits experienced by local farmers.



**Mulching for Soil Health and Water Conservation.** Mulch is used by dry farmers and small-scale producers to improve soil moisture, reduce water erosion, and for weed control.

## USDA Programs & Resources

✓ **Contact a Natural Resource Conservation Service Soil Health Expert.** Regional experts from the Soil Health Division can provide advice and training to improve and conserve soil health.

✓ **Agricultural Conservation Easement Program, Natural Resources Conservation Service (NRCS).** The NRCS works with landowners to improve water quality, land, soil, and other natural resources through land easements.

✓ **Conservation Innovation Grants, NRCS.** Conservation Innovation Grants support private landowners in developing new conservation approaches and practices for soil management and other natural resources on their land.

✓ **Conservation Reserve Program, Farm Service Agency (FSA).** Enrolled landowners receive rental payments in exchange for taking environmentally sensitive land out of agricultural production to improve environmental health, including water quality and other natural resources.

✓ **Conservation Stewardship Program, NRCS.** This program provides assistance for landowners to improve practices on working lands. NRCS works hand in hand to help plan and carry out improvements, based on needs. These can include a wide variety of place-appropriate water conservation practices.

✓ **Environmental Quality Incentives Program, NRCS.** This program provides technical and financial assistance to agriculture producers interested in investing in voluntary conservation management practices.