

CARBON IMPACT OF CONSERVATION PRACTICES: COVER CROPS



Cover crops provide an alternative to letting a field lie fallow during the off season. Planted prior to or immediately after cash crop harvest, they keep a living cover on the soil, which protects it from erosion and contributes to soil health. Most cover crops are not typically grown to sell, although they can be used for grazing.^{1,2,3}

A BOUNTY OF CHOICES

Among the many options for cover crops, common choices include cereal rye, wheat, oats, turnips, and tillage radishes. Additional benefits come from planting multiple species of cover crops as well. Selection depends on the needs of the farm. Some cover crops survive the winter and need to be terminated in the spring. Others grow only in the fall and die from winter frost.^{4,5}

THE GREAT PROBLEM SOLVERS

Cover crops are powerful tools in successful farm and soil management. They can be selected to address specific issues, including managing nutrients such as nitrogen. They put nitrogen back into the soil or help affix excess nitrogen and decrease nutrient losses. Cover crops have many benefits.^{6,7}

Sources

1 Bergman, Kayla. "Conservation Practice Impact on Carbon Sequestration." Center for Rural Affairs, March 2022, cfra.org/publications/conservation-practice-impact-carbon-sequestration. Accessed April 2022.

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4 Bergman, Kayla. "Conservation Practice Impact on Carbon Sequestration." Center for Rural Affairs, March 2022, cfra.org/publications/conservation-practice-impact-carbon-sequestration. Accessed April 2022.

5 Sarrantonio, Marianne. "Managing Cover Crops Profitably, 3rd Edition: Selecting the Best Cover Crops for Your Farm." Sustainable Agriculture Research and Education, 2007, sare.org/publications/managing-cover-crops-profitably/selecting-the-best. Accessed June 2022.

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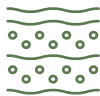
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Benefits of cover crops^{8,9,10}



Add organic matter to soil



Enhance soil structure



Improve water-holding ability



Improve carbon sequestration



Manage nitrogen



Provide grazing for livestock



Reduce erosion



Provide weed control



Provide mulch

HOW CAN I START?

The Natural Resources Conservation Service (NRCS) supports cover crops through programs such as the Conservation Stewardship Program (CSP) and the Environmental Quality Incentives Program (EQIP). These programs provide producers with both technical and financial assistance to start using cover crops. Visit a local USDA Service Center to find out more. Find local offices at offices.sc.egov.usda.gov/locator/app. Additional industry support, such as discounts on seed and crop insurance, is also available.¹¹

CARBON SEQUESTRATION

When paired with reduced and no-till systems, cover crops sequester even more carbon and add carbon even deeper into the soil.¹²



Adding cover crops can sequester up to 0.32 metric tons of carbon dioxide per acre per year and up to 0.49 metric tons of carbon dioxide equivalent per acre per year.¹³

Sources

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9 Via, Sara. "Increasing Soil Health and Sequestering Carbon in Agricultural Soil: A Natural Climate Solution." Izaak Walton League of America and National Wildlife Federation, 2021, iwla.org/soil_report. Accessed March 2022.

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11 "Fact Sheet: Guide To Cover Crop Cost-Share in Iowa." Center for Rural Affairs, 2020, cfra.org/publications/guide-cover-crop-cost-share-iowa. Accessed March 2022.

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