



COVER CROPS

Practice Description:

Cover crops are planted in addition to a cash crop in order to gain environmental and economic benefits. In Iowa, cover crops are usually seeded into standing corn or soybeans, or after those cash crops are harvested.

In a typical corn–soybean rotation, there are only living roots in the ground four to five months out of the year. Fall and spring rains often arrive in Iowa when there are no living roots on agricultural fields, leading to nitrate-nitrogen being washed away. Cover crops provide living roots during this time of year. These roots absorb nitrate-nitrogen and prevent it from being lost.

According to Iowa's Nutrient Reduction Strategy, cereal rye and oat cover crops, when included in a corn–soybean rotation, have the potential to reduce nitrate-nitrogen loss by 31% and 28%, respectively. A cereal rye cover crop has the potential to decrease phosphorus loss by 29% according to the same report.

Practice Benefits:

- Decrease soil erosion
- Increase soil microbial activity (soil health)
- Decrease nutrient runoff and leaching
- Increase soil carbon
- Suppress weeds
- Improve soil structure (increased infiltration, decreased compaction, increased water holding capacity)
- Manage soil moisture
- Provide habitat for beneficial insects, pollinators, and wildlife
- Provide forage for farm animals
- Break disease cycles



Cereal rye cover crop growing into no-till corn in Carrol County, Iowa. NRCS/SWCS photo by Lynn Betts.

Practice Economics:

- Estimated at \$25 to \$30 per acre
- Compatible with existing federal and state cost-share programs so farmers can recoup some of their costs

Other Resources:

- <https://www.flickr.com/photos/151012306@N08/albums/72157672351331508>: A step by step visual guide to cover crop implementation. These photos were taken on real farms across Iowa and are part of the Conservation Media Library.
- <https://vimeo.com/290520999>: A video about cover crop implementation in Iowa that is part of the Conservation Media Library.
- <http://www.sare.org/Learning-Center/Topic-Rooms/Cover-Crops>: General benefits of cover crops and the different management systems they can be incorporated into from Sustainable Agriculture Resource and Education (SARE). Includes descriptions of different cover crop varieties as well as how to select and manage them.
- <http://www.practicalfarmers.org/member-priorities/cover-crops/>: From Practical Farmers of Iowa (PFI), this site provides links to many different Iowa-focused cover crops resources (including a list of businesses that can supply seeds and custom planting) and access to Practical Farmers of Iowa on farm research trials.
- https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_005818.pdf: A general factsheet on cover crops in Iowa from the USDA Natural Resources Conservation Service.
- <http://www.mccc.msu.edu/>: A one stop shop for all things cover crops from the Midwest Cover Crop Council.

This project is part of the:



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MEDIA LIBRARY

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