



Manitoba Association of
Watersheds

Cover Cropping

Prairie Watersheds Climate Program (PWCP)

Cover Cropping

What is it? What options do I have through the PWCP?

Cover crops are an effective strategy for increasing soil organic matter (SOM) and crop yield while reducing soil erosion, fertilizers, salinization and greenhouse gas (GHG) emissions.

Some species like legumes are used in cover cropping since they have a remarkable ability to fix nitrogen through their roots. These roots have nodules containing bacteria from the genus *Rhizobium*. These bacteria have a symbiotic relationship with the plant to fix atmospheric and soil nitrogen into complex proteinic structures in the plant. Because legumes are rich in nitrogen, they are used as green manure to benefit future crops.

Legumes do not just reduce GHG emissions, but also enhance soil composition and structure because of their extensive root systems. These roots also improve water infiltration and reduce soil compaction during winter.

With funding support from Agriculture and Agri-Food Canada (AAFC), the PWCP may provide funding for farmers and ranchers for the adoption and on-farm implementation of cover cropping beneficial management practices (BMPs) that are recommended by a professional agronomist, agrologist or certified crop advisor. Eligible activities include:

- Fall and spring cover crops
- Full-season annual and/or perennial cover crops
- Planning and technical assessments



Generic legume's roots



Alfalfa: one of the most used legumes for cover cropping

Why should I implement cover crops?

Cover cropping is a well-known agricultural practice used to enhance the organic and topsoil layers of the soil, increase the nitrogen content, and improve soil health. It has been proved that cover cropping as a BMP is one of the best solutions to reduce fertilizer application rates and nitrogen emissions to the atmosphere. In fact, nitrogen emissions, like many other greenhouse gases have caused multiple changes in our climate.

Locally, we have been experiencing unstable multi-annual climate conditions in the prairies with severe consequences. In the agricultural sector, farmers struggle year to year with droughts and floods that may cause a significant economic impact.

The adoption of sustainable agricultural practices and BMPs such as cover cropping can assist both farmers and the environment. In fact, cover cropping is an effective practice to tackle the adverse effects of climate change on the agricultural sector while also helping to increase crop yield when they are included on a rotational basis or inter-cropped with other species.

How Can I apply to PWCP?

PWCP is managed by the Manitoba Association of Watersheds (MAW). Delivery agents in Manitoba and Saskatchewan are available to assist farmers in the region with PWCP applications and documentation required for this program. In Manitoba, contact your local watershed district; in Saskatchewan, contact the Saskatchewan Association of Watersheds for further information about BMPs, funds, eligibility, and conditions. Full details are available at

www.manitobawatersheds.org/prairie-watershed-climate-program.



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