

INTERCROPPING TO IMPROVE SOIL HEALTH AND PLANT YIELD

Intercropping may be a viable solution to improve soil health and increase plant yield, while minimizing annual inputs. Intercropping works by sowing two or more different crops in the field alongside each other to benefit both the soil and crops thanks to the synergy of natural nutrients and beneficial chemicals.

When thinking of intercrop rotations, it is also handy to think about how the roots will intertwine with each other strengthening the soil preventing erosion and runoff. Intercropping enhances soil health by helping to aid the growth and stability of the organic matter and humus. The increased canopy coverage in the field reduces competition from weeds and volunteer crops. In creased canopy of cover in intercropping system additionally mitigates soil moisture loss and moderates soil temperatures. The canopy cover also benefits insects that will help with the pests that naturally come with the crop variety grown.

When intercropping two very different crop varieties such as a legume with a cereal crop, disease and pest cycles that occur throughout the growing season can be disrupted. Seeding a legume with a cereal or oilseed crop allows the grower to take advantage of the nitrogen fixing ability to the legumes to reduce fertilizer requirements.



Producers who use intercrop rotations will likely see more resilience from external factors such as dry or wet seasons, reducing the effects of year-to-year weather variability we see on the Canadian prairies.

It is important to research prior to introducing intercropping to your farm to learn about which species work best together, potential herbicide interactions, seeding rates and harvesting multiple crops, but there are many benefits to this practice. Intercropping can be beneficial for all types of producers, both farmers and cattle producers, in terms of soil health, plant health and yield, and pest control.

Intercropping is an eligible project through SAW's SWEAP (Saskatchewan Watersheds Environmental Agriculture Program) Cover Cropping category. Funding for SWEAP is provided by Agriculture and Agri-Food Canada through the Agriculture Climate Solutions - On-Farm Climate Action Fund (OFCAF).

