

Agricultural Land Cover



The Census of Agriculture is collected every five years. New data will be available in 2017.

Why it matters

Land use in agricultural areas of the province contribute to biodiversity, soil conservation and habitat availability. While the main intent of farming is food or forage production, land use practices can support wildlife and natural processes. Monitoring trends in agricultural land cover and management practices over time allows us to track whether we are moving towards or away from enhancing biodiversity across the province.

What is happening

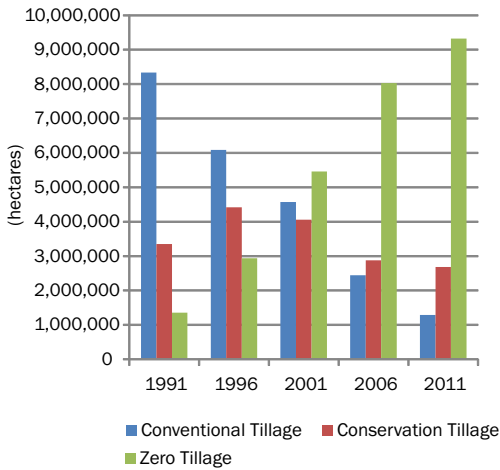
The Census of Agriculture is collected every five years and new data will be available in May 2017. The most recent measures of the overall state of Saskatchewan agriculture are taken from the [2011 Census](#).

Conservation farming practices such as zero-tillage are producing significant improvements to Saskatchewan's air and water quality, biodiversity conservation and significant carbon storage capacity with 11.4 million tonnes sequestered in 2014. Conventional tillage, conservation tillage and zero-till (or no-till) are defined by the amount of crop residue left on the soil surface.

Up to 50 per cent of the soil's organic matter is estimated as lost in Saskatchewan since cultivation began and before the adoption of more sustainable practices such as conservation and zero-tillage.

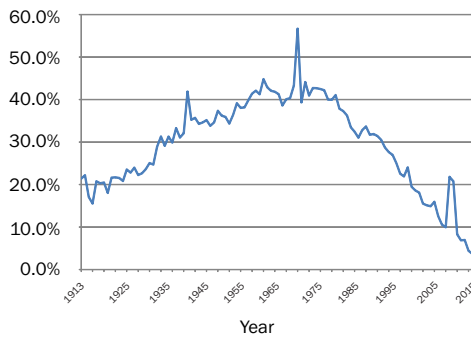
Zero tillage technology and other technological advances, such as GPS, have significantly reduced the amount of fuel, fertilizer and other inputs needed to produce crops.

Conventional, Conservation, and Zero Tillage, 1991 - 2011



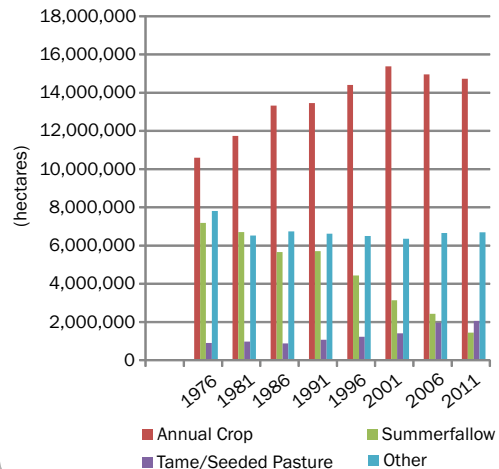
The amount of farmland devoted to annual cropping has steadily grown since the 1970s, while summerfallow has declined. The decline is associated with a growing awareness of the risk of negative environmental effects such as soil erosion, depletion of organic matter and increased soil salinity.

Summerfallow as a Percentage of Total Annual Cropland Hectares, 1913 - 2016



Note: The increase in summerfallow hectares in 2010 and 2011 is due to abnormally wet growing seasons that resulted in land that couldn't be seeded because of excess moisture.

Land Cover Type on Saskatchewan Farmland, 1976-2011, Census of Agriculture 2011



Note: Due to abnormally wet growing seasons in 2010 and 2011 land that couldn't be seeded because of excess moisture were reported to the Census of Agriculture as "too wet to seed" and is categorized in this table as "other".

The organic matter of Saskatchewan's farmland soils is being restored through zero-till and other soil conservation methods. Various permanent cover programs have also contributed to some cropland being seeded back to grass. The area devoted to tame or seeded pasture has more than doubled from 1986 to 2011. Permanent cover holds topsoil in place and uses moisture efficiently. Pastures provide grazing and winter feed for livestock as well as habitat for a variety of wildlife.

What we are doing

Saskatchewan farm families have learned how to be adaptable and innovative. One area of conspicuous leadership in our province is the move towards zero and low-till agricultural practices. This practical adaptation has led to unexpected benefits in the area of climate change.

Back in the 1990s, Saskatchewan soils were considered to be a net emitter of carbon. Advances in zero and low-till agriculture have increased the amount of organic matter to store carbon. In 2014, Saskatchewan soils sequestered an estimated 11.43 million tonnes (megatonnes) of carbon.

There have been other benefits as well. Zero-till provides cover that reduces vulnerability to soil erosion as well as resilience to droughts and extreme weather. By reducing the number of passes over a field, fuel and labour are saved, which lowers production costs and reduces air pollution.

Saskatchewan is the biggest carbon sink in Canada. In 2014, the province's soils sequestered 11.43 million tonnes of carbon from the atmosphere.