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Climate & FOOD

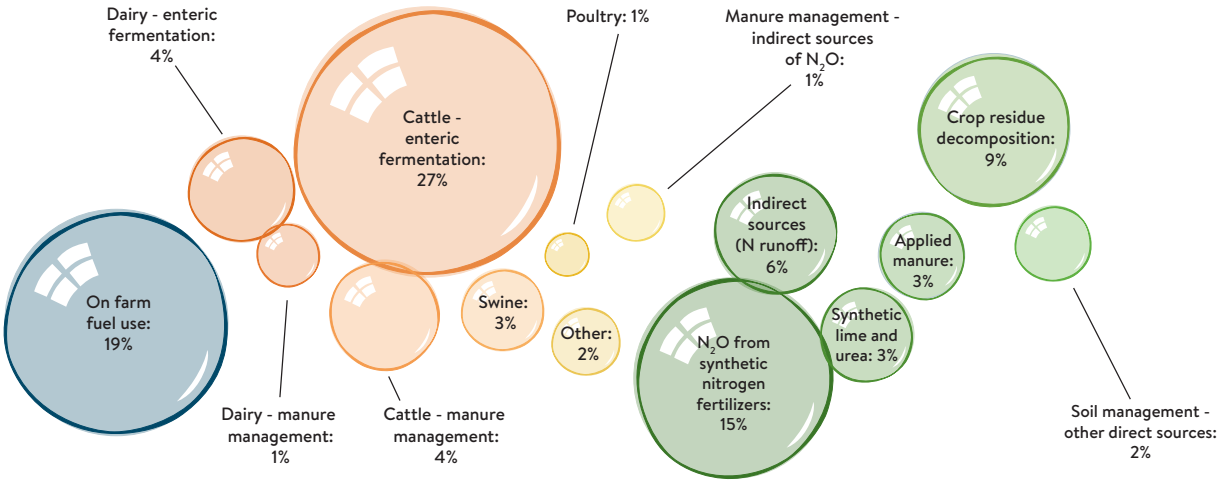
Reducing On-farm Emissions

The agriculture sector, including on-farm fuel and energy use, accounts for 10% of Canada's national greenhouse gas emissions. Despite a need to decrease emissions substantially to meet Canada's commitment under the Paris Climate Agreement, total agriculture sector emissions are not declining even with a decrease in livestock-related emissions.

Several trends are shaping national agriculture sector GHG emissions:

- **A shift away from perennial forage towards increased annual cropping,** land for crop production expanded to 37.8 million hectares in 2016, while areas for pasture slowly decreased to 27 million hectares
- **A dramatic increase in N_2O emissions, primarily from increased nitrogen fertilizer use** in the Prairie provinces, has made annual crop production a larger contributor to total agriculture emissions and has increased agriculture emissions overall
- **Livestock production has a decreasing share of total emissions, but still contributes 30% of Canada's total methane emissions** through enteric fermentation and manure management
- **Overall, the Canadian agriculture sector has a high energy-intensity** with very large volumes of fuel and fertilizer used to run farms[1]

Share of Canadian Agriculture sector GHG Emissisons



References:

[1] Environment and Climate Change Canada (2017) *National Inventory Report, 2011 - 2016* canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html