How would you extend knowledge about agricultural greenhouse gas emissions?

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Picture this – you are a provincial extension agent, working on the Canadian Prairies, and you have been tasked with [*Egads!*] coming up with ways of extending knowledge about greenhouse gas (GHG) emissions from Manitoba farms. Your **bold** idea – create a GHG calculator for farmers to conduct independent assessments in the same voluntary, confidential fashion as Environmental Farm Plans.

Thinking of the sources of agricultural GHG emissions, and the various types of Manitoba farms, which practice categories will you include in your assessment tool? What practice changes should users of the tool be able to select, in determining how farming GHG emissions might be reduced?

Agriculture emits the potent greenhouse gases methane (CH_4) and nitrous oxide (N_2O) and can both emit and absorb carbon dioxide (CO_2). These fluxes occur dynamically and can be estimated annually. By contrast, the absorption of CO_2 by soils, known as carbon (C) sequestration, takes place over a very long timespan. Consider these facts as you imagine the capacity and limitations of your shiny new extension tool.

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