

Regenerative Agriculture: Carbon Sequestration

Submitted by Mira Dietz Chiasson on July 6, 2016

There is new research that suggests “regenerative agriculture” could be a hugely powerful tool for sequestering carbon and reducing the ppm of CO₂. The concept is simple: plants capture carbon; some are better at it than others. Through organic farming practices, in particular “carbon farming”, anyone can help convert atmospheric carbon into plant/organic matter which ends up in the soil. It's a win-win situation: removing carbon from the atmosphere, building soil health, growing food. There are no caveats (what could possibly be controversial about it?). It's good for people (healthwise, food, jobs, etc) good for the environment (improving soil health improves biodiversity, cleans up water, etc). From an article in the guardian:

“Estimates of the total potential impact vary. Rattan Lal of Ohio State University argues that desertified and otherwise degraded soils could sequester up to 3bn tons of carbon per year (equal to 11bn tons of CO₂, or nearly one third of current emissions). Other experts foresee even greater potential. According to research at the Rodale Institute, if instituted universally, organic regenerative techniques practiced on cultivated land could offset over 40% of global emissions, while practicing them on pasture land could offset 71%.

That adds up to land-based CO₂ reduction of over 100% of current emissions – and that doesn't even include reforestation and afforestation, which could offset another 10-15%, according to the Intergovernmental Panel on Climate Change. Of course, none of this is license to perpetuate a fossil fuel infrastructure, since there is an eventual limit to the amount of carbon that soil and biomass can store.” (<https://www.theguardian.com/sustainable-business/2015/mar/09/we-need-regenerative-farming-not-geoengineering>)

So here is what Canada should do. It's obvious we should encourage organic farmers (and encourage young people to farm. present it as a viable option, a worthwhile endeavor). And we should encourage consumers to support local farmers practicing regenerative agriculture techniques. Canada should invest into more research around the potential of regenerative agriculture and determine ways to monitor how much carbon the soil is taking up in order to maximize efficiency.