



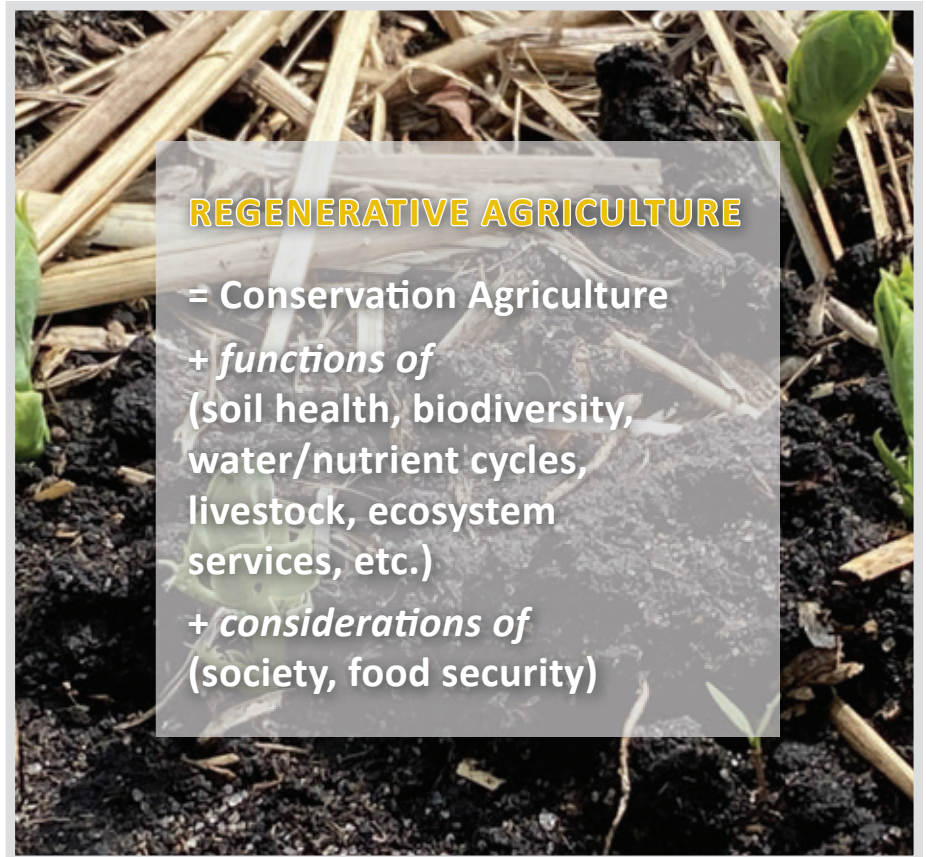
REGENERATIVE AGRICULTURE – A NEW OR REPACKAGED PRODUCTION SYSTEM?

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A mixed farming friend near Calgary approached Tom a couple of years ago after reading Regenerative Agriculture (RA) material encouraging farmers to move to RA to practice more sustainable agriculture. He pointed out all the practices he was doing appeared to be RA compliant. Tom agreed he was already doing RA with all the best management practices on his farm (but didn't label it as such). The issue then, and now is, how can he prove it?

The Regenerative Agriculture term first appeared in the US in the 1980s from the organic industry as a term that would allow external crop resources and became a common term by the early 2000s. European scientists have referred to RA as a convergence of the Euro-political favoured term, agroecology, with sustainable intensification. There is no single definition but rather many variants along the same theme which may be problematic to meet the needs of tomorrow's policies.

Prior to the appearance of RA, the term Conservation Agriculture (CA) had been internationally adopted by the UN Food and Agriculture Organization to include three measurable principles of continuous soil cover, no tillage and diverse cropping systems. RA adopted



REGENERATIVE AGRICULTURE

= Conservation Agriculture
+ *functions of*
(soil health, biodiversity,
water/nutrient cycles,
livestock, ecosystem
services, etc.)
+ *considerations of*
(society, food security)

the three CA principles and built an all-encompassing framework stacked with many other principles, concepts and doctrines inclusive of all socioeconomic, environmental and production concepts that favour development, sustainability and lower environmental impacts.

RA has captured the imagination and attention of the public and policy makers perhaps because the term 'regeneration' implies a rebuilding to a previous, better state of agriculture from a current damaged or degraded state.

The definition of 'conservation' also includes restoration (rebuilding) as well as preservation, protection and prevention of resource waste. However, RA has captured the attention of the public, especially those tangential to agriculture and the marketing folk so it has become ubiquitous in the media and political circles.

RA is not a bad thing. It's good but ambiguous, and hard or easy to define, depending on your viewpoint. RA promoters are accepting that farm adoption of

any component of the concept or framework constitutes 'adopting RA' or moving in the right direction. There is no transition period before a defined final state such as with organic farming. You can start RA with increased CA principles or improved biodiversity, soil health, water cycle or ecosystem services. As you can see, doing versus defining and measuring becomes difficult and is context dependent, based on region and farm specific objectives. Why worry about measurements? Because the future will be about certifying and quantifying food production practices.

The government policy climate

Governments are becoming aware of the need to consider the big picture of agriculture and the interactions with other facets of the policy environment. National governments have signed large international agreements that directly or indirectly include agriculture interests or are adopting international policy frameworks. This then impacts federal-provincial funding agreements, provincial and municipal policies. Some of these are:

- UN Framework Convention on Climate Change, and all related initiatives on adaptation and mitigation across all sectors;
- UN Convention on Biological Diversity (farms impact the amount and direction of biodiversity and ecosystem services);
- UN Sustainable Development Goals (a large, interconnected set of 17 goals, many of which are connected to agriculture and food); and
- UN One Health (“... an integrated, unifying approach to balance and optimize the health of people, animals and the environment.”)

As the attributes of these large policy frameworks trickle down to national and sub-national levels, we become aware of agriculture

issues such as zoonotic diseases, farm identification and traceability systems, environmental issues such as the 'dead zone' in the Gulf of Mexico, food safety controls, wildlife interactions, energy infrastructure, worker health and safety, and the list goes on.

Implicit in all these policies, big and small, is the need for data and documentation to prove state and change of the policy goal, attributes or tasks. In the case of the 17 Sustainable Development Goals, they have 169 targets and 247 indicators! We observe governments everywhere striving to develop metrics and assessments of agriculture to meet international policy needs or local policy incentives and programs, as well as the overarching need for transparency and accountability of public funds.

The private policy climate

The above-mentioned international policies have implications for the corporate sector and remember, agriculture is ruled by large multinational corporations sensitive to government and public sentiments.

Corporations are moving towards food or process labelling and certifications to assure the consumer of labour, production, processing and packaging criteria. Many of these corporations are moving towards supporting RA through market access, labelling or meeting their own policy obligations (offsets, insets, ecosystem services, environmental footprints).

Companies develop private policy different than governments and the large corporations want policies that can apply over large regions of the globe. They can be collaborative but compared to governments they move faster, consult quicker and develop policy faster. They may have a two-year horizon or less to develop a label and certification

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system for a food product like sustainably produced beef.

The keystone groups

The non-government organizations, aka 'keystone groups' or 'caught in the middle,' are the profit and non-profit interest groups with labels of conservation, environment, facilitation, auditing, consulting, and commodity organizations (wildlife, grains, livestock, round-tables, etc.) They have both their own interests at stake and the desire to facilitate the agriculture sector to easily accommodate the emergent needs of policies.

The future

Farmers need to consider how best to document their farm practices and how they align with public and private policy expectations. Keystone groups such as commodity organizations can work with both the private and public sector to facilitate transitions and sensible metrics. Pulse growers and their organizations can be an important catalyst and contributor in this process.

Regenerative Agriculture is a new packaging of best management practices that needs an easily implementable record keeping system for the farm level.