

REGENERATING AGRICULTURE

The people, the land,
and the business

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Richards Family Farm and Livestock Ltd.

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Garry and Lynn's Story

- The Richards Family Farm: Est. 1902
- 2000: Return home
- 2002: Cows
- 2003: Holistic management course
- 2007 ish: Gabe Brown
- 2009: First Cover Crop Cocktail
- 2010: First ADOPT project and benchmarking
- 2018: Second ADOPT project and follow up

What does a farmer do?

- The farmer takes free inputs, rain and sunlight, and converts them into marketable commodities.
- With wise management we can do this with the least amount of risk and effort to achieve the highest net profit and best quality of life.
- When we do not harvest the most sunlight and water that we can we are leaving money on the table and our soil is not getting as healthy as is possible.
- “Plants and animals are God-given resources to harness the energy of the sun, and if managed properly they can produce all we need.”



“As to the methods there may be a million and then some, but principles are few. The man who grasps the principles can successfully select his own methods. The man who tries methods, ignoring principles, is sure to have trouble.”

-Harrington Emerson



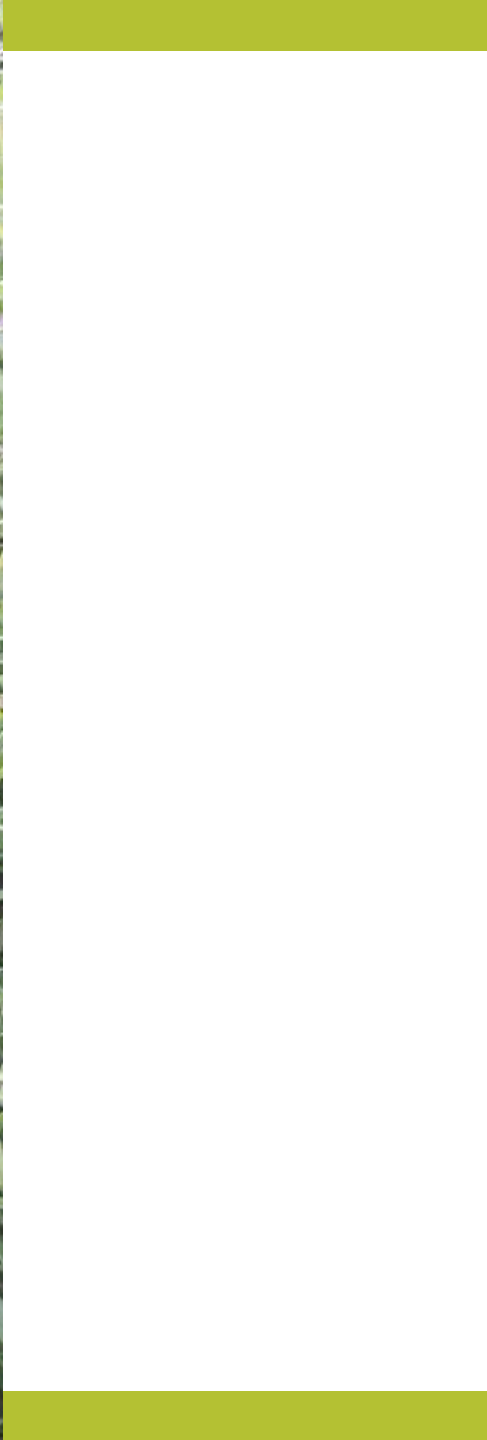
Principles of making soil healthy

1. Mimic nature.
2. Do not till.
3. Keep the soil covered.
4. Plan for diversity. Above the ground and below the ground. Plants, animals, insects, roots, macro and micro biology.
5. Limit the use of synthetic chemicals.
6. Keep plants growing and photosynthesizing for as long as possible.
7. Incorporate livestock into your farm.





50 + Species



20 + Species

Cover Crop Blend 2018

- Goal of 2-3 year persistence for economy, soil health, resilience, less work
- Grazed in year one and options in subsequent year depending on our needs.

• Sweet Clover	3 lbs/acre	Chicory	.4 lb/acre
• Alfalfa	1 lb/acre	Phacelia	.2 lb/acre
• Red Clover	.5 lb/acre	Buckwheat	2 lbs/acre
• Italian Rye Grass	3 lbs/acre	Sunflower	3 lbs/acre
• Annual Rye Grass	2 lbs/acre	Winter Triticale	20 lbs/acre
• Festulolium	1 lb/acre	Hairy Vetch	4 lbs/acre
• Brassica	1 lb/acre	Oats/Barley	15 lbs/acre
• Plantain	.4 lb/acre	Peas	10 lbs/acre
• Misc grass	1lb/acre	Misc (incl. millet)	1 lb/acre

Trends we see on soil tests on our farm

- In General:

- Decrease in pH. Range is from low 7's to low 8's.

- Increase in SOM. From 5 to 6%.

- Increase in soil microbial populations. PLFA of 5300-6500. Higher scores on Solvita.

- Increase in available nutrients.

- Increased soil aggregation

ADDRESS THE ROOT
CAUSE OF THE
PROBLEM,
NOT THE SYMPTOM


Chemistry

Haney	B - ppm	Mg - ppm	P - ppm	K - ppm	Ca - ppm	Mn - ppm	Fe - ppm	Cu - ppm	Zn - ppm	Mo - ppm
307	1.173	275.702	45.311	113.810	591.517	28.542	381.003	1.469	10.045	0.039
LEGEND										
LOW		pH	6.56							
AVERAGE		TOC	299.0125	Total Organic Carbon (PPM)				Ca:Mg	2:1	
OPTIMAL		IC	112.5215	Total Inorganic Carbon (PPM)						
VERY HIGH		TC	411.534	Total Carbon (Organic + Inorganic) (PPM)						
TNE	B - ppm	Mg - ppm	P - ppm	K - ppm	Ca - ppm	Mn - ppm	Fe - ppm	Cu - ppm	Zn - ppm	Mo - ppm
307	5.043	1775.357	387.835	826.495	3187.320	138.138	3217.555	8.078	22.332	0.110

Your soils are low in available manganese, however there is a large reserve of manganese in the soil as indicated by the total nutrient analysis (TNE). The soil pH is acidic with high resistance to pH changes. The soil TOC is at 299 ppm which is above our minimum benchmark of 200 ppm along with high IC. It indicates high buffering capacity of the soil. A small addition of calcium can help keep the Ca to Mg ratio at 4:1. Please do not add any more Phosphates and Potassium as it may create negative downstream effects.

Healthy Water Cycle.

How effective is your rainfall?



Regenerative Agriculture has Opportunity

Cow-Calf, yearlings, medicinal herb production, herb gardening, pastured pigs, organic grain, sheep, meat goats, dairy goats, pastured egg production, pastured broilers, conventional grain, outfitting, abattoir, Agri-tourism, compost production, honey-bees, seed production, grain cleaning, flowers, flour, working dogs, seedstock cattle/livestock, horse breeding, horse training, grassfed beef, feed production, custom farm work, farm consulting, custom fencing, U-pick, market garden, grass dairy, cheese production, yogurt production, milk/cream/butter, mushrooms, turkeys, timber, ecosystem services

Integration vs. Specialization



Responsibility

- We view our farm as an ecosystem which, when properly managed can help solve many societal problems (flood, drought, wildfires, human health, regional temperature shifts).
- Livestock is treated humanely with low stress. They live a great life with one bad day at the end.
- Mentorship occurs and information is shared freely.
- The food we produce should make your kids smarter and you healthier.
- We are stewards of the land and all that live on it or in it.
- My children should be able to grow up on a farm that has a future.

Resilient



Health



Flexible



Flexible



Farm Design



The Challenges We Face

- Managing the number of units we have in a regenerative manner which is intensive. Best done on a smaller scale?
- Management. Management. Management.
- Finding the right person for the job.
- Putting numbers to, as best we can, how regenerative farm practices are better.
- “People are very open-minded about new things as long as they are exactly like the old ones.” People need to be enlightened. Farmers, consumers, and government.
- Human health.

“A farm made whole by the artistry of farming.” -Wendell Berry

