

RegenAg SA - Advancing regenerative agriculture for soil, human and planet health

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We chat with Andrew Ardington, founder of the Regenerative Agriculture Association of Southern Africa (RegenAg SA), as he delves into the importance of healthy soil and the benefits of regenerative agriculture practices for the land, consumers, and the planet. Ardington furthermore touches on ways to invest in rehabilitating degraded soils and the role of farmers in restoring ecological function.



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■ ***Can you tell us about RegenAg SA and what they hope to achieve?***

RegenAg SA is an organisation dedicated to the advancement of regenerative agriculture in southern Africa. By a combination of creating community, awareness, education and consultancy, we are working to replace degenerative agricultural systems with regenerative ones. We cannot economically and environmentally continue to produce food and fibre in ways that make primary farming so risky and unsustainable for the farmer and for the environment.

■ ***How would you define regenerative agriculture?***

By regenerative agriculture, we mean agricultural management practices that regenerate soil rather than degenerate it as the current dominant agricultural practices. These practices are dominated by significant soil disturbance, high external synthetic inputs, bare ground and no attempt to work with the soil ecosystem.

Soil is crucial to human existence on the planet and we need to work with it in such a way as to ensure we do not prevent it from performing its multiple interlinked functions that are crucial to human existence on the planet.

■ ***Why is maintaining healthy soils so important to the success of regenerative agriculture?***

Healthy soil is crucial to regenerative agriculture as it provides a multitude of ecosystem services to the farm ecosystem enabling farmers to produce products with less expensive, external inputs being bought onto the farm.

The farm's systems also become more resilient to the vagaries of the weather and climate change resulting in less economic variance and greater ecological and financial stability. Improved soil health increases the ability of soil to infiltrate water, decreases soil erosion, increases soil water-holding capacity, decreases soil compaction, improves the diversity and population of soil microbiology, improves plant access to elements and water, it improves the air content in soil. All of this allows the soil to function at a higher rate; this impacts the plant-soil relationship and plant function which lies at the heart of all agriculture.

■ ***Can you share some of the ways that RegenAg SA is working to educate farmers and consumers about regenerative agriculture?***

RegenAg SA is working with numerous other entities and people to raise the profile and adoption of regenerative agriculture. Strategies include farmers days, conferences, the creation of a fund to assist farmers wishing to transition, regenerative research, social media communities and working with numerous biological agronomists.

■ ***What benefits can we expect to see from the widespread adoption of regenerative agriculture practices?***

The benefits of regenerative agriculture are multiple, some direct and others indirect, some for the land steward, some for the consumer and some for people on the other side of the planet. Healthy soil function is crucial to the stable functioning of the planet's ecosystems and climate. Degraded soils are a threat to human life on the planet. By adopting farming practices that improve soil function, a myriad of ecosystem services are given by that soil to the whole planet. The water we drink, the air we breathe, the food we eat, the stable climate we need, stopping desertification, all of these things are benefits of regenerative agriculture.

■ ***How can those who don't work in agriculture invest in the restoration of farm lands?***

The planet is under enormous pressure from human activity and we need to restore the ecological function of vast areas, as this ecological function is crucial to the stable planet humans require. As things stand, much of the planet's soil is degraded. It is crucial to restore these degraded soils so that we can all benefit from their multiple ecosystem services.

Sadly farmers are being painted as the enemy in this scenario, but where we are today in terms of the environmental detrimental impact of food production is only partially the farmers' fault. As Wendell Berry wrote, "[We] are all farming by proxy."

Farmers did not invent fertiliser, combustion engines, and poisonous chemicals, nor did they create the economic and political system that pushes them.

Agriculture makes up 3% of the world's GDP but farmers interact with 60% of the world's soil; farmers are potentially the greatest restoration agents we have on the planet. However, with so little capital, farmers cannot invest in the agricultural transition and soil restoration that is required to make this change.

To bring about the soil restoration, we all require the 97% needed to invest in making the 3% agents of positive change.

Aside from exposing duplicity, attacking farmers for where industrialisation and politics have taken farming is and will achieve nothing positive. On the contrary, investing in the new knowledge we have about soil, soil function and its remarkable powers of recovery has the ability to change so much for so many.

▣ ***What are some of the key principles that RegenAg SA believes are necessary for maintaining healthy soil?***

Soil is a combination of dirt, dead organisms and living organisms, and soil health is all about protecting and maximising conditions for the living component. Soil health is soil microbiology health. Yet so many common agricultural practices do just the opposite, they kill soil microbiology.

Regenerative agriculture has five key soil health principles which, if implemented in the right manner, create the environment soil microbes need:

Minimum disturbance - mechanical (ploughing and digging), chemical (synthetic fertilisers and poisons) and biological (monocultures and overgrazing)

Armour - keep soils covered with living plants or mulch - protect them from the wind, the sun and the rain

Diversity - diversity of above-ground plants and animals leads to diversity of below-ground micro-organisms

Living roots - soil micro-organisms get most of their food from root exudates, no plants means no exudates

Incorporate livestock - ecosystems are not designed to function without animals and we need to get livestock back into our cropping and horticulture systems

▣ ***In what ways does regenerative agriculture play a role in mitigating climate change?***

Climate change is a subset of a larger problem I refer to as 'environmental collapse', a combination of biodiversity collapse, desertification and climate change. It is remarkable how many problems associated with environmental collapse can be mitigated by creating healthy soils and returning to their full soil function.

We as a species are so attracted to linear thinking and silver bullets, but the reality is that we live on a biological planet and there is nothing linear about biology. Everything is a system and we need to have a systems-thinking approach to solving these problems. Regenerative agriculture alone cannot solve environmental collapse or even climate change but without regenerative agriculture, without healthy soil, we cannot solve these existential problems man is facing.

▣ ***How is RegenAg SA working to advocate for regenerative agriculture policies at the government level?***

Sadly, the government in SA and in most other places is securely captured by industrial agriculture and its linear, short-term, false silver bullet problem-solving. We hope that the multiple benefits described above will catch the eye of someone in government, and are willing to engage with government as their involvement has the potential to bring about massive change.

▣ ***What does the future of regenerative agriculture look like?***

The future of regenerative agriculture is bright; as more farmers realise that the industrial system works for the system and not for the individual farmer, they will move towards regenerative farming. Industrial farming claims we have to farm their way to feed the planet but with no soil and bankrupt farmers, how are we going to feed people?

Hopefully, as more and more people realise the importance of soil health - in addition to providing food - they will support more initiatives to support regenerative farmers and get behind farmers rather than view them as the problem.

ABOUT ROBIN FREDERICKS

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