Queensland Communities in Transition

Regenerative Agriculture in central Queensland – landholders join forces to regenerate their soils

Long term degradation of fertile soil in Australia, loss of arable land, diminishing profitability and reduced nutritional levels in produced food are all challenges faced by agricultural producers. Regenerative agriculture techniques however, help to not only preserve soils but also improve them and may hold some of the answers needed to help safeguard the future of primary producers.

Regenerative agriculture is broadly defined as a holistic approach that develops the biology and fertility of soils by mimicking resilient natural processes, cycles and systems. By looking at the whole food system, regenerative agriculture is also helping to reconnect people with their food which is aiding to build new business and local supply models.

But how?

In regenerative agriculture, there is a strong focus on fostering partnerships between individuals, community groups, business, leading practitioners and researchers to actively strengthen the culture of agriculture.

In central Queensland a group of landholders, with support from Fitzroy Basin Association Inc. (FBA) have created in a peer-to-peer network. Regenerative agriculture expert, Kym Kruse from RegenAG® was engaged to support the group with their learning and practice throughout the project. The network is based on a peer-to-peer model that includes training, participation in trials, mentoring and networking.

"We work with farmers all over the country. This CQ project, in partnership with the FBA, has been a huge success and connects to our broader Australia wide RegenAG Network of farmers, which ultimately benefits all involved."

Kym Kruse, Co-Founder and Principal Consultant RegenAG®

HIGHLIGHTS

- Network of 88 landholders in CQ (24 landholders took part in this FBA project)
- 6 trial sites throughout central Queensland (CQ)
- 4 courses & 4 field days
- Online group mentoring for the project duration of 12 months
- Many landholders now extending RegenAG practices more broadly across their properties





Two RegenAG® 3-day Biofertiliser Courses were conducted in 2018 funded by the Australian Government's National Landcare Program. The courses were supported by FBA, which included subsidising landholders' attendance.

RegenAG® Biofertiliser Courses

The RegenAG® Biofertiliser Course is foundational training for farmers to produce their own farming inputs and transition into regenerative agriculture practices without risking yields or safety. The focus is on training farmers in the practical 'how' of regenerating their soil health and manufacturing a wide range of their own chelated mineral liquid fertilisers and other inputs using readily available materials and raw ingredients on-farm. The cost savings by farmers manufacturing their own commercial scale, quality inputs are significant.

The enthusiastic response to the courses led to a number of attendees seeking further support to implement practices on their properties.

A peer-to-peer program was then established by FBA for the participants through the Enhanced Extension Coordination program that is funded by the Queensland Government Reef Water Quality program.



Moura farmer Ian Townsend outlining his RegenAG program used for his trial plot of 30ha of Sorghum under centre pivot irrigation.

Trials

A diverse range of agricultural enterprises were involved in the project, with six trial sites established. These received regular support and guidance over 12 months from RegenAG®.

Some of the participants' trial sites have been so successful that they have extended regenerative agriculture practices more broadly across their properties.

Dryland cropper Myles Ballentine, located at Banana CQ, implemented a broad scale RegenAG® program in winter wheat, in addition to the official trial site, with excellent results in both yield and seed quality. Myles is in the process of scaling-up his bio-factory facility, which will enable him to produce enough inputs to cover his whole farm.

Irrigated cropping and cattle farmer Cherie Gooding near Biloela CQ, trialled RegenAG® livestock Liquid Mineral Supplement (LMS) in addition to her official trial on irrigated lucerne. Early results of from faecal testing and Volatile Fatty Acid (VFA) measurement of cattle manure showed early third trimester pregnant heifers on declining feed quality had an increase in VFA production as a result of receiving their daily dose of RegenAG® LMS. Volatile Fatty Acid is the major source of energy for cattle.

"Our sorghum trial block yielded 5t/ha using 195kg/ha less urea than the control. The quality of the seed was on the higher end and we have noticed an increase in worm population in the RegenAG® trial not noticed in the control. We've also noticed lots of microbes breaking down the mulch and the following cover crop resulted in huge amount of organic matter from the roots in the soil." Ian Townsend, Cropping/Cattle, Moura CQ



Peer-to-peer network, mentoring and field days

Each month, landholders met online with RegenAG® Kym Kruse. These mentoring sessions enabled participants to have their questions answered and an opportunity to discuss regenerative agriculture practice implementation amongst peers.

In addition to the quarterly on-farm field days, these sessions built confidence, provided encouragement and inspiration for all involved.

FBA again engaged RegenAG® to deliver another two courses in 2019. Both were well received and well attended.

The results are in...

FBA conducted a survey of the peer-to-peer mentoring group to help gauge the success of the model. Feedback collected at the end of the first year indicated all participants would recommend the peer-to-peer mentoring group to a friend or colleague. Similarly, survey data revealed all participants would recommend the practice of regenerative agriculture to a friend



"Contact with peers within the group was such an important part of this project. It enabled landholders to share what worked, what was challenging and to learn from each other." Vicki Horstman, Regional Agricultural Landcare Facilitator (FBA)





The peer-to-peer program is supported by Fitzroy Basin Association Inc. and the Enhanced Extension Coordination program and funded by the Queensland Government Reef Water Quality program.

Thanks to the Regional Agricultural Landcare Facilitator (Vicki Horstman), funded through the Australian Government's National Landcare Program, Kym and Georgina Kruse of RegenAG[®], and all peer-to-peer mentoring group participants for their support of and commitment to this project.

This case study is part of a series of case studies that have been developed as part of the Queensland Communities in Transition Program. Prepared by The Ecoefficiency Group as part of Clean Growth Choices Consortium with funding from Queensland Department of Environment and Science, 2019 For further information, visit <u>www.cleangrowthchoices.org</u>

