Regenerative Agriculture

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Differences between conventional and regenerative agriculture

- Review paper looked at 28 peer-reviewed studies to find convergence and divergence between objectives and activities that define RA
- RA uses soil conservation as an entry point to regenerate and contribute to multiple ecosystem services
- RA recognises the complexity of natural systems
- RA seeks to return the control of soil fertility to farmers

Schreefet al., 2020. Regenerative agriculture – the soil is the base, Global Food Security (26)
Differences between conventional and regenerative agriculture

• Soil-plant mutualisms developed over millions of years
• Conventional ag bypasses soil-plant mechanisms
• Loss of diversity impacts soil function incl. soil carbon decline
• Conventional ag driven by the productivity paradigm
• Carrots for $1/kg
Regenerative agriculture

• Seeks to understand and work with natural processes
• Operates within a broader agroecosystem
• Prioritising the farm’s most important asset – the soil
• Understands the need to manage below-ground livestock
• Prioritises profit not productivity
• Prioritises well being
• Minimises risk and stress
Drivers of change

- Climate change
- Soil as a non-renewable resource
- Declining responses to fertilisers
- Growing awareness of the need for change
- Weekly reports of farmers doing something different
- Lack of institutional support
- Identifying supporting science
Change on the ground

• Regenerative grazing – examples from Victoria
• Regen cropping on corporate farms in Victoria
• Comparison between regen and conventional graziers in NSW
Average score – measures of farmer self-efficacy. BPRF and comparison group

<table>
<thead>
<tr>
<th>Statement</th>
<th>BPRF (n=9)</th>
<th>Comparison Group (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can cope well with most difficult conditions on the farm</td>
<td>5.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Maintain and improve the health of the vegetation, land and water on my farm</td>
<td>6.4</td>
<td>5.5</td>
</tr>
<tr>
<td>I feel optimistic about my farming future</td>
<td>6.6</td>
<td>5.3</td>
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</tbody>
</table>

Average score, measured from 1 = strongly disagree to 7 = strongly agree. In samples of 100 or more differences of 0.5 points or more typically significant.

(Kimberly Brown, PhD Candidate University of Canberra Centre for Research and Action in Public Health)
Change on the ground – grazing in Victoria
Change on the ground – grazing in Victoria
Change on the ground
corporate farming
Victoria 7\textsuperscript{th} Jan20
Change on the ground – corporate farming Victoria
26th Feb20
Change on the ground – corporate farming
Victoria
Disced in 25th May20
Change on the ground – corporate farming
Victoria
Re-sowed 1st June 20
The future of regenerative farming

• Natural capital
• Soil organic carbon as a primary measure
• Need for more strategic approach to chemical use
• Need to understand the place and contribution of biodiversity
• ‘Re-wilding’ of land requires people
• Inter- and cross-disciplinary research required - shift from reductionism to holism
• Re-discovering the joy in farming - Ikigai
THANK YOU

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