REGENERATIVE FARMING – HEALTHY LAND, HEALTHY PROFITS, HEALTHY PEOPLE

6th Rural and Remote Health Scientific Symposium

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Addressing Farmer wellbeing

- Most activities addressing farmer mental health focus on early intervention and access to treatment
- Further investigation on promotion and prevention activities targeting this group is required
- **What can be done to help improve wellbeing?**

Mental health intervention spectrum. Adapted from Institute of Medicine (1994, Fig 2.1, p 23)
WHY IS WELLBEING IMPORTANT?

Wellbeing: “a state ... in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” – World Health Organization, 2013

Social determinants of wellbeing

- Smoking, drinking, exercise
- Social interaction
- Safety of community
- Access to services and infrastructure (education, health, internet, mobile phone)
- Environmental health
- Landscape (physical and natural)
- Age
- Gender
- Life experiences
FACTORS KNOWN TO INFLUENCE YOUR WELLBEING

Determinants of rural and remote wellbeing

- Access to health services (and willingness to access them)
- Isolation/remoteness

Determinants of farmer wellbeing

- Conditions on the farm
  - weather/climate, pest/disease, input costs, market change, regulatory change, others…..
- Ability to achieve desired outcomes on farm (confidence in your skills, ability to overcome challenges and able to achieve positive outcomes)
- Working conditions – working hours, isolation, family relationships, physical injury

Fraser, Smith, Judd, Humphreys, Frager & Henderson (2005) and Soosai-Nathan & Delle Fave (2016)
ADDRESSING THE WELLBEING OF FARMERS
WHAT CAN WE DO TO ADDRESS THE OCCUPATIONAL DRIVERS OF FARMER WELLBEING?

Photo taken by Natasha Peasley
WHAT IS REGENERATIVE FARMING?

A type of agriculture that aims to restore balance in ecological systems through a whole of farm approach.

At least 5,000 regenerative farms in Australia (depending on your definition)

Regenerative farming is characterised by a focus on:
- Increasing biodiversity
- Maintaining groundcover
- Incorporation of farming systems into existing natural systems
- Increasing the organic matter in soils
- Monitoring the regeneration of the landscape
- Reducing reliance on inputs

Photo courtesy of David Marsh, regenerative farmer near Boorowa
WELLBEING CLAIMS

- Improved relationships
  social connectedness

- Drought preparedness
  and resilience

- Improved self-efficacy

- Less stress
  and worry

- Increased financial security
  and stability

Very little evidence to support these claims
To explore the health and wellbeing outcomes for regenerative farmers

- This project is jointly funded through University of Canberra and the Australian Government’s National Environmental Science Program.
- Led by the Fenner School at ANU
- A multidisciplinary project exploring ecological, economic and wellbeing benefits associated with regenerative farming
- University of Canberra conducted the wellbeing component
STUDY DESIGN

Mixed methods approach

Exploratory study
• To inform future research using larger samples
• Taken a small group of Best Practice Regenerative Farmers, and compared their wellbeing to other groups of farmers

Semi-structured interviews:
• Explored the impact regenerative farming had on wellbeing and wellbeing determinants
• Thematic analysis of notes from interviews
• Results to help interpret findings from survey data analysis

Analysis of survey data:
• Subjective wellbeing measures (life satisfaction, Personal Wellbeing Index, worthwhileness)
• Wellbeing determinants (farmer specific measures of self-efficacy)
• Controls (age – those over 65 are much happier, gender – complex differences)
Best practice regenerative farmers

- Small sample, specifically selected (n=9)
- NSW
- Commercial scale graziers
- Mostly male, almost all 40-60, almost all graziers
- Completed both semi-structured interviews and wellbeing survey
1. Property planning and management should include a long-term vision which considers the whole of the property and its place in the catchment

2. Manage soils to prevent erosion, maintain productive capacity and water quality (<30% bare soil surface)

3. Maintain a variety of plants and animals (presence of large native tussock grasses, <30% property high input area)

4. Maintain local trees (>30% property woodland/forest, with each patch >=10ha. Presence of mature, dead and naturally regenerating trees)

5. Core conservation areas at least 10% of the property

6. Presence of water courses and riparian areas that are covered in good quality native vegetation

Source: Principles of Managing and Conserving Grassy Woodlands (S. McIntyre, JG. McIvor, KM Heard 2002)
SAMPLE CRITERIA – COMPARISON GROUP

- Completed the Regional Wellbeing Survey 2016
- *An annual survey of rural and regional Australia. Intensive sampling of farmers. Collates data on a range of wellbeing measures, and factors which influence the wellbeing of regional and remote Australia*
- NSW
- Full-time grazier
- Male
- Aged 40 to 60 years
- Provided data for quantitative measures of wellbeing
RESULTS

Qualitative
Wellbeing benefits of regenerative agriculture

**Self-efficacy**
- Improved on-farm decision making
- Pro-active rather than reactive
- Not reliant solely on external factors
- Monitoring and understanding the landscape
- Open to new ideas

**Feeling good**
- Optimism
- Reduced stress/worry
- Increased awareness of health
- Pride and enjoyment from the landscape

**Relationships**
- Reduced hours worked on farm (most but not all)
- Time off farm
- Social connectedness (positive and negative)
- Improved family relationships

**Financial stability**
- Increased financial resilience of farming business
- Reduced financial burden
RESULTS
Quantitative
Average subjective wellbeing of best practice regenerative graziers and comparison group

Subjective wellbeing - three measures. Each is measured from 0-100. In a sample of 100 or more differences of >3 points often meaningful & significant.
Average score – satisfaction across various domains of life. BPRF and comparison group

Best practice regenerative graziers (n=9) vs Full-time NSW graziers, aged 40 - 60, Male, 2017 (n=51)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Best Practice</th>
<th>Full-time NSW</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard of living</td>
<td>7.8</td>
<td>7.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Health</td>
<td>7.9</td>
<td>7.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Achieving in life</td>
<td>6.9</td>
<td>7.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Personal relationships</td>
<td>7.3</td>
<td>7.3</td>
<td>0.0</td>
</tr>
<tr>
<td>How safe you feel</td>
<td>8.0</td>
<td>8.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Feeling part of your community</td>
<td>7.6</td>
<td>7.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Future security</td>
<td>7.6</td>
<td>7.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Personal Wellbeing Index - individual items.** Each is measured from 0-10. In samples of 100 or more differences of >0.4 points often meaningful & significant.
Average score – measures of farmer self-efficacy. BPRF and comparison group

- Best practice regenerative graziers (n=9)
- Full-time NSW graziers, aged 40 - 60, Male, 2017 (n=51)

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.
Average score – measures of farmer self-efficacy. BPRF and comparison group

- **CONF I can cope well with most difficult conditions on the farm**: Average score 5.6 (BPRF) vs 4.4 (comparison group)
- **CONF maintain and improve the health of the vegetation, land and water on my farm**: Average score 6.4 (BPRF) vs 5.5 (comparison group)
- **I feel optimistic about my farming future**: Average score 6.6 (BPRF) vs 5.3 (comparison group)

*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.*
FINDINGS

Those practicing regenerative farming have higher eudaimonic wellbeing when compared with other farmers of similar farm type, age and gender.

Regenerative farmers scored much higher on measures of farmer self-efficacy (coping and optimism). This was also reflected in the qualitative data where regenerative farmers identified self-efficacy and self-improvement (determinants of eudaimonic wellbeing) as potential pathways for wellbeing.

Regenerative farmers were less satisfied with feeling part of their community. Some farmers interviewed viewed practicing regenerative agriculture was in conflict with what is normally accepted as farming practice.

Regenerative farmers were more satisfied with their health compared to other farmers. Farmers spoke about the importance of physical health in interviews, particularly in relation to diet and physical activity.
LIMITATIONS & RECOMMENDATIONS

• Small sample size of best practice regenerative farmers

• Cross-sectional data

Are those who choose to practice regenerative agriculture already healthier and happier?

• A study with a larger sample of regenerative farmers is required to determine if findings are replicated

• This small study shows there may be some association between regenerative agriculture and occupational drivers for farmer wellbeing, however more work is required to understand how we can better target these occupational drivers of farmer wellbeing

• This will require collaboration between the agricultural/natural resource management sector, and the health sector
THANK YOU

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