

The role of trust and social identity on farmers' intentions to report suspected emergency disease outbreaks

Summary of research findings and implications for biosecurity
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- Early reporting of suspected emergency disease outbreaks is important for rapid response and minimising impacts. Understanding factors that drive disease reporting by farmers is one important way to help improve biosecurity outcomes.
- A study conducted in 2021 at the Australian National University (ANU) found that farmer trust in government positively influences disease reporting intentions. For every one unit increase in trust, disease reporting intentions were found to increase by over four times.
- An important contributor to perceptions of trust was whether farmers felt like they were mutually recognised by government as being part of the same social group responsible for managing disease investigations.
- Biosecurity implications of this study are shared by governments and agricultural industries, as both have important roles in detecting and responding to disease early.

Research need

Disease is one of the greatest threats to the productivity and profitability of plant, aquaculture, and livestock industries in Australia and around the world. An important way to minimise the impact of disease outbreaks is early detection and rapid response [1].

Farmers play an important role in this by noticing signs of disease and reporting these concerns to the relevant state/territory government so a disease investigation can commence (a process called general surveillance).

Modelling has shown that reducing the time between a farmer noticing signs of disease and the disease being diagnosed is the best way to reduce the impacts of disease [2].

There are both barriers and incentives for reporting which include regulatory, business, economic and psychological factors. Psychological factors include attitudes, motivations, social influence, risk perception, perceived behavioural control [3, 4].

Research suggests that trust is also an important factor in farmers' decision-making process to report suspected disease [5]. Research also suggests that social identity is an antecedent to perceptions of trust [6]. In this context, social identity refers to the social groups that we are part of and identify with. We tend to trust others who we perceive as being in the same social group as us, as long as that shared group membership is mutually recognised by both the trustor and trustee [7].

Hypothesis

This research hypothesised that shared social identity and trust in the local state or territory government responsible for biosecurity would positively influence farmers' intentions to report suspected emergency disease on their farm.

Method

The research used a cross-sectional survey design of 41 Australian plant, livestock, and aquaculture farm owners or managers, conducted from May-August 2021. The theoretical approach was guided by Social Identity Theory [8] and the Integrative Model of Organisational Trust [9].

Key results

- Trust in government and social identity significantly predicted disease reporting intentions.
- Social identity influenced perceptions of trust i.e., sharing a social group was associated with increased levels of trust.
- Trust in government explained more than one quarter of the variance in disease reporting intentions.
- For every one unit increase in trust, the likelihood of reporting disease increased by over 4 times.
- As a sense of shared social identity among farmers and government increased, the likelihood of reporting by over 3 and a half times.

Biosecurity implications

This study is relevant for both government policy makers and agriculture industry participants because both share responsibility for biosecurity. Two main findings emerged from the study:

Finding 1.

This is the first study that has quantified the importance of a trusting relationship among industry and government for disease reporting. As trust increases, this substantially increased the likelihood of disease reporting, making it an important aspect to consider when aiming to enhance the sensitivity of the general surveillance system.

Finding 2.

This study offers insights on how trust could be cultivated among farmers and their biosecurity agencies:

- improve farmers' perception of the governments' benevolence (e.g., clarity on the process) and ability (e.g., expert response capability and contingency plans) in handling emergency disease outbreaks.
- increase a sense of shared social identity among industry and government. The results suggested that one way to improve this is for governments to increase industry's confidence that they will be treated as true partners in disease investigations and responses.
- consider levels of farmer awareness of emergency response agreements for industries who are signatories. In this study, almost half of participants were unaware if their industry was a signatory. Emergency response agreements aim to encourage early reporting and outline how responses will be managed collaboratively among industry and governments— potentially enhancing perceptions of shared social identity, trust, ability, and benevolence.

Limitations and future directions

The sample size in this study was modest and obtained from across plant, livestock, and aquaculture sectors. Therefore, analysis was based on the pooled data across all sectors, meaning any differences between sectors were unable to be identified and the conclusions are generalised across sectors. Future research seeking to understand disease reporting within sectors would benefit from a larger sample size and could broaden to examine other factors known to influence reporting and how they relate to each other.

Acknowledgements

Thank you to those farm owners and managers who participated in this research, and the industry organisations who helped distribute the questionnaire to their members. This study was completed as part of the Honours program in the Research School of Psychology, ANU. The research was conducted under ANU Human Ethics Research Committee approved protocol 2021/161.

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