AGRICULTURE IN TASMANIA: RURAL LANDHOLDER SUMMARY

As part of the Soil CRC's nationwide project, a questionnaire was mailed to a sample of rural property owners in Tasmania in 2022. Southern Cross University researchers partnered with Charles Sturt University, NRM North, NRM South, Cradle Coast NRM, Southern Farming Systems and Rural Business Tasmania to develop and undertake the survey. A total of 2000 questionnaires were sent out to a random sample of Tasmanian landholders holding land over 10ha in size. Following removal of return to senders and opt-outs, the final sample size was 1217, of which 424 questionnaires were returned, resulting in a solid response rate of 35%.

PROFILE OF FARMING IN TASMANIA

Within the respondent population, the most common land use was beef (44%) and sheep (31%). Of all landholders, 45% were using land for pastures and 24% were undertaking horticulture, and there were many mixed enterprises. Overall, 96% of respondents live on their Tasmanian property. The median size landholding was 42 hectares across one property. The median length of family land ownership was reported as 22 years, with a mean of 53 years. Across all respondents, the median age was 61 years and 25% were female. Survey respondents self-identified by landholder type as follows: 33% full-time farmers; 16% part-time farmers; 29% hobby farmers; and 22% non-farming landholders.

REGIONAL AND ON-FARM CHALLENGES

Issues were selected from lists developed for the questionnaire in local workshops. Figure 1 shows the most important regional issues for each landholder type, with the top property-level issues in Figure 2.

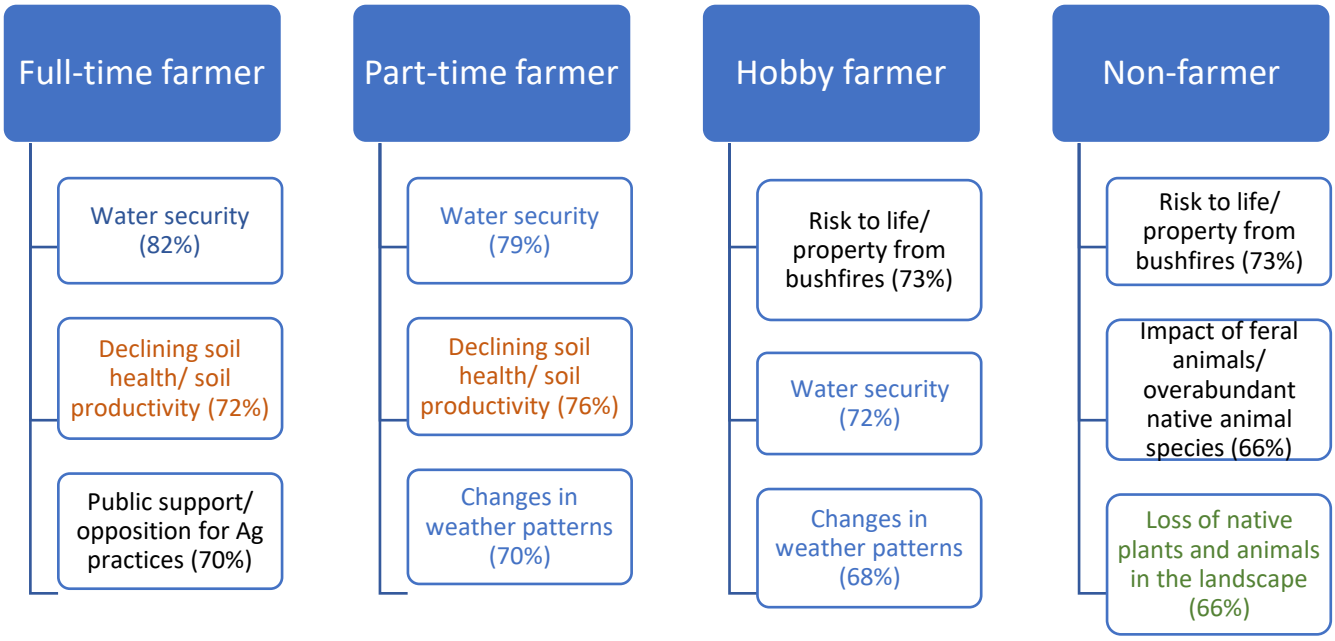

*Figure 1: Top 3 most important **regional issues** by farmer type (n=394-384. Blue colour shows factors potentially influenced by accelerated seasonal and climatic change. with soil issues in orange, and biodiversity concerns in green.*

For all landholder types, the most important issues for the region were 'water security' (72%), 'impact of feral animals/ overabundant native animal species on productivity' (67%), and 'changes in weather patterns (66%). At property-scale, the 'impact of feral animals/ overabundant native animal species on productivity' (78%); 'impact of weeds or over-abundant native plant species on productivity' (77%) and 'water quality' 70% were the top three issues.

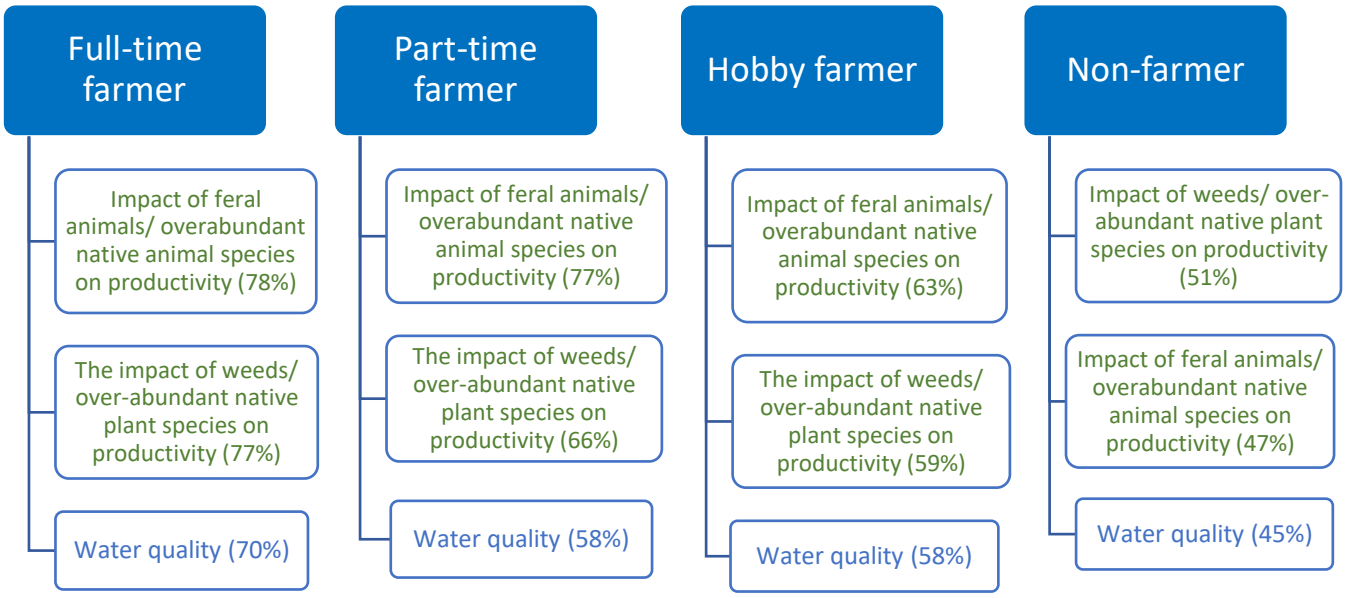

*Figure 2: Top 3 most important **property-level issues** by farmer type, 2022 (n= 394-384). Blue text shows factors potentially influenced by accelerated seasonal and climatic change, with biodiversity concerns in green.*

To focus on those farming commercially, non-farmers and hobby farmers were removed from the sample. At property scale, Tasmanian farmers were most concerned about impacts on productivity caused by weeds, feral animals/ over-abundant native species and water quality (Figure 2).

When asked an open question on what the biggest challenge and/or opportunity might be over the next ten years, the most common issues raised were climate change and rising input costs, with listed opportunities being improved water, soil and pasture management.

In regards to climate change, 73% of farmers agreed that human activities are influencing our climate, and 58% agreed the effects of climate change pose a risk to the region. Two-thirds of commercial farmers (65%) agreed that landholders in the region should do all they can to reduce carbon emissions.

Together, this demonstrates strong concern about the lived impacts of climate change for property owners and farmers. More than half (69%) of all respondents and 62% of farmers agreed that if nothing is done, climate change will have dire consequences. There was a level of confidence that local landholders in the region can adapt to changes in weather patterns (66%). Notably, 51% agreed that fundamental changes are required to make the region's farming systems sustainable.

FARMING PRACTICES AND RESILIENCE

The data indicates a strong level of personal responsibility among farmers to maintain the productivity of their soil (97%). In Tasmania, the four most common farming practices undertaken in the last five years are: soil testing to understand soil condition (48%); planting trees and shrubs (47%); application of at least one lime application (47%); and maintaining at least 70% ground cover (47%).

When asked what the biggest influence on their soil health has been, grazing practices (including overgrazing) and stock management were important, followed by soil testing and inputs such as lime, fertiliser, organic matter. Some farmers also raised soil issues, including pugging and erosion.

For farmers, 92% deemed biological activity to be an important indicator of the productive capacity of soils. The results show that carbon farming is the number one topic that farmers wish to learn more about, with only 4% of farmers reporting to have sound knowledge of it.

Farmers who intended to keep the farm in the family were more likely to make strategic decisions in consideration of longer time frames of 20 to 100 years. On-farm management was largely collaborative, with over three quarters of farmers (81%) including others in their management decisions. Most often,

this was a spouse/partner, family or agronomist. In relation to personal resilience of farmers, 78% indicated that they are coping well with stressors associated with managing their farm. This was lower for farmers aged between 41-56, at 66% - with 8% of this group reporting that they were not coping well.

DRIVERS OF CHANGE

Tasmanian farmers are willing to consider practice change: 89% agreed that they were open to new ideas about farming and land management. However, only half (53%) agreed that they had the financial resources to experiment with new ideas, with 49% having sufficient time to do so. In relation to farmer attitude towards change, 43% considered themselves to be early adopters, compared with 26% seeing no reason to change. Taken together, the responses suggest that while farmers have an open mindset, there are financial and time constraints upon investment in new practices. When it comes to risk, 66% indicated they were not willing to take a risk if their 'gut/intuition says no'.

VALUES

The most important values people attached to their property are shown by landholder type in Figure 3:

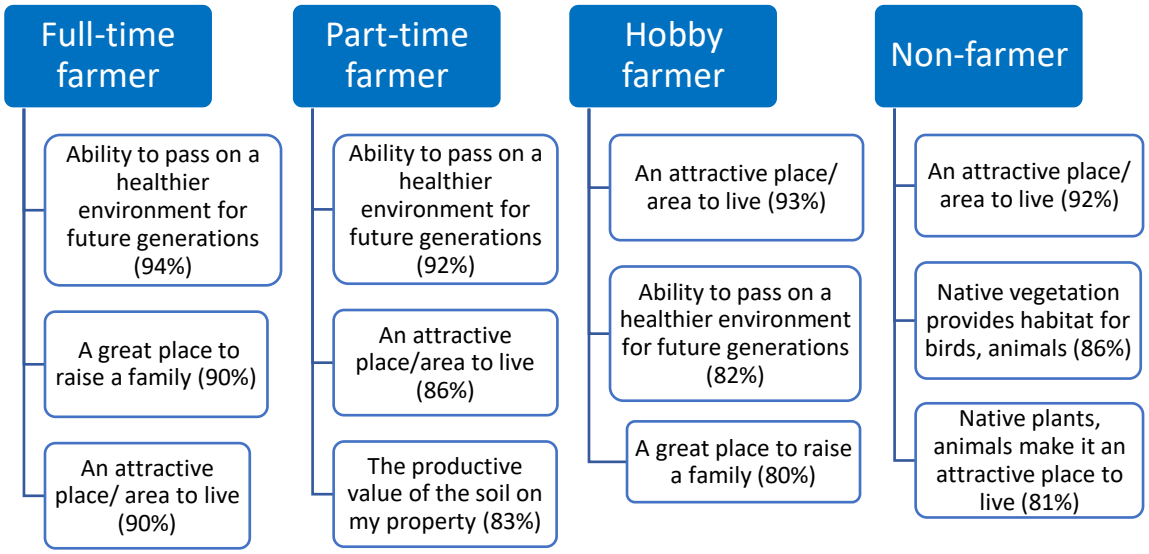

*Figure 3: The **values people attach to their land**, by landholder type - showing some major differences by group.*

When looking at the personal values that guide landholders' lives, 'looking after my family/ loved ones and their needs' was important across all landholder types (97%), representing a strong focus on the family unit. The next most important value was preventing 'pollution and protecting natural resources' (89%) followed by 'respecting the earth and living in harmony with nature' (82%).

FARMER ENGAGEMENT

When asked about their top sources of information for farm and property management, the top source of knowledge was 'other farmers' (74%), followed by their own 'knowledge and experience' (72%); Bureau of Meteorology (56%); and 'independent agricultural consultants, agronomists or stock agents' (55%). The "Tasmanian Country" weekly newspaper was the most popular source nominated. A third of farmers used an independent agronomic consultant, with just over a quarter using commercial consultants. Extension officers were reported as a key source for 12% of farmers. DIPWE/ NRE were a key information source for 18% of farmers. Those under 56 were also more likely to use websites or social media platforms to inform their farming (60 and 65%). Farmers under 41 years of age were twice as likely to use scientific articles directly.

Of farmers surveyed, 45 % agreed that 'farming system groups are the best way to drive and direct local research, development & extension'. The same figure (45%) had attended field days/ farm walks/

demonstrations focused on soil health and productivity in the past 12 months. This increased to 51% for full-time farmers.

DATA MANAGEMENT AND USE

Almost two-thirds of farmers (64%) agreed that data is an important part of farm management, with 62% agreeing that they already have good systems in place to manage farm data. However, 40% viewed internet connectivity as a barrier to using on-farm data effectively.

Soil testing was perceived as an integral element of data gathering, with 93% of farmers agreeing that it is an essential step in understanding soil condition. However, just 43% of all respondents and 57% of farmers indicated that they had performed soil testing in the last 3-5 years, with 33% testing their soils annually. Of those who were testing soils regularly, 81% sampled systematically across many paddocks.

THE FUTURE OF FARMING IN TASMANIA

Data from full-time and part-time farmers was broken down into three age categories, determined by the following definitions: Baby Boomer + (born prior to 1965); Generation X (born 1965-1980); Generation Y and younger (born from 1981 onwards).

The youngest generation (Gen Y) managed the most land with an average of 510 hectares for Generation Y in comparison to Baby Boomers (369 hectares), and 296 hectares for Generation X. Generation X worked the most hours on farm per week (32 hours), followed by Baby Boomers (31 hours) and Generation Y (27 hours). In relation to what technologies or tools could better support farmers into the future, responses included improved internet, new technology for livestock and crops, and improved information provision about holistic farming and landscape regeneration.

LONG-TERM PLANS

Of all respondents, 16% indicated that they intend to sell the property (13% of farmers). A fifth (19%) of Tasmanian farmers indicated that they intended to purchase additional land, in line with broader industry trends to larger holding sizes. Of farmers, one fifth indicated they would lease additional land, while 24% intended to change the enterprise mix to diversify income. Of farmers, 20% indicated that they intend to move toward intensive enterprises. Overall, 71% of all respondents and 77% of farmers indicated that ownership of the property would stay within the family. Regarding farm succession planning, 49% had not started a plan, 27% were in the early stages; 15% at the halfway point and/or ongoing, and 9% had advanced plans in place.

BUILDING RESILIENCE THROUGH PARTNERSHIP BETWEEN SCIENTISTS AND FARMERS

A key aim of this Soil CRC project is to learn how to best engage and support farmers for improved integration of farm-management and soil-health outcomes into the future. Achieving this this requires researchers continually working with farmers to gain good understanding of their needs, the challenges they face, and their ideas for a more resilient farming system, now and into the future. We thank every landholder who took the time to develop and/or complete the survey – we cannot do this work without their significant contribution. Please note that this summary document presents preliminary data and further analyses will be undertaken for the Social Benchmarking Report. To access the full report contact Dr Hanabeth Luke: **Hanabeth.luke@scu.edu.au**, which will be made available via the Soil CRC website.

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