National Science Challenges

OUR LAND AND WATER

Toitū te Whenua, Toiora te Wai

Farm Certification Scheme Survey, 2022

Report Produced for Our Land and Water National Science Challenge

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Introduction

Background

Our Land and Water (OLW) is the National Science Challenge established to invest in research and related activities to improve land use and freshwater management, and to support the vitality of te Taiao in Aotearoa. The OLW challenge goal of *Wai ora, Whenua ora, Tāngata ora* looks to a future in which all New Zealanders can be proud of the state of our land and water, while sharing in the economic, social and cultural values that te Taiao offers.

Research purpose

The purpose of this research and report is to collect Key Performance Indicators (KPIs) to measure the impact of the OLW program on the Challenge goal of increasing farm participation in agribusiness, quality assurance, accreditation, and farm certification schemes. In particular, the study provided data regarding the on-farm use of environmental, social, cultural, and economic dimension metrics in such schemes. While the initial baseline survey focused on the calendar year 2021, the current survey focussed on farmer participation in farm certification schemes during the 12 months prior to the survey distribution (07/07/2021 – 03/08/22). Future survey(s) may be required to estimate the increase in farm uptake of these schemes and the metrics used. The OLW Challenge will use the data gathered in this research to report to the Ministry of Business, Innovation and Employment (MBIE) on its progress towards the goals specified above.

Methods

Sample

The survey target population was all land-based producers in New Zealand (e.g. agriculture, arable, horticulture, viticulture, etc). The sample was recruited via advertisements on social media (Facebook, LinkedIn, Twitter), and through OLW and industry groups contact email lists (full details of effective collectors are provided in Appendix 1). Potential respondents were informed of the purpose of the survey and were required (in the first survey question) to give their informed consent for participation. They were also informed that participation was voluntary and that the privacy and confidentiality of their individual responses would be maintained, with only group data reported.

Survey instrument

The survey instrument was created using the Qualtrics™ platform to ascertain the relevant KPI measures for the OLW Challenge. The draft survey was based on the baseline (Farm Certification Scheme Baseline Survey 2020) for consistency. All questions (except for informed consent) were voluntary - participants were able to choose not to answer any specific questions by skipping them or opt out of the survey at any point by leaving the browser. Most questions were closed-ended and suitable for statistical analysis. A few open-ended response questions were also included, and a minimum of relevant demographic information sought (i.e. farming sector, region, and age).

Respondents who had not participated in a scheme, or who were unsure if they had (second question in survey), skipped the questions regarding the schemes and went directly to the demographics page of the survey. The survey instrument was brief with a maximum of 18 questions (for those for whom the survey skip logic did not skip any questions) and on average took between 3-6 minutes to complete. The finalised study procedure and survey design was submitted to, and approved by, the Lincoln University Human Ethics Committee (HEC-2022-22).

Procedures

The survey went live on Thursday July 7th 2022 using the aforementioned collectors, and was held open for response for four weeks, closing on Wednesday 3rd August. There were further rounds of advertising in social media and via email contact (to those who had not responded to previous emails) during the second and third weeks in which the survey was open.

Analysis

Data analysis was conducted used survey data extracted from Qualtrics™ and exported to Microsoft Excel. As requested in the project brief, analysis was kept at a simple level with the main results being expressed as frequencies or averages. Open-ended questions were analysed by grouping similar statements or responses together and conducting counts of statements in each group using NVivo12 software.

Results

As this report is an analysis of Key Performance Indicators (KPIs) for OLW, to measure progress against the KPIs each survey question is specified and brief results from both the baseline (2020) and current survey (2021-22) are presented. However, prior to the full results, a summary table of the main results is provided below (Table 1).

Table 1. Summarised results

Data collected	**Result**		
	2020 Baseline	*2021-22 Current*	*% Change*
Percentage of respondents with farms participating in farm certification schemes	54.4%	61.5%	+7.1%
Percentage of farmers measuring wellbeing dimensions			
• Economic dimension	13.3%	11.2%	-2.1%
• Environmental dimension	82.8%	81.7%	-1.1%
• Social dimension	53.7%	53.4%	-0.3%
• Cultural dimension	27.5%	19.5%	-8.0%
Average number of metrics per wellbeing dimension of respondents			
• Economic dimension	2.2	2.3	
• Environmental dimension	6+*	6+*	
• Social dimension	~5*	~4*	
• Cultural dimension	2.1	3.0	
Percent of respondent farms audited in prior 12 months	76.4%	90.7%	+14%
Average number of times farms audited in prior 12 months	1.3	1.9	
Average level of satisfaction with main scheme	4.7**	4.6**	

*Note: Due to the responses in the categories *6-10* and *11 or more* indicators, it is not possible to exactly calculate an average for the count of environmental and social indicators.
**Scale: 1 = very dissatisfied, 4 = neutral, 7 = very satisfied.

The above results are presented in greater detail in the next section. The full results, as presented below, will aid the comparison of performance on the OLW KPIs over time against this baseline. Results from two qualitative questions, what farmers 1) liked, and 2) disliked about their farm certification schemes, are also reported below. Results and study limitations are briefly explicated in the Discussion section (Page 17).

Main survey questions

1. Do you give your consent to participate in this survey?

The first question of this survey asked participants to give their consent to participating in this survey. For the current survey, participants were screened if they did not consent to participating in the survey, leaving 247 consenting participants in total.

2. During the past 12 months, did you participate in any farm certification scheme(s)?

For the current survey, of the 247 respondents who consented to participate, over half (152) said they had participated in farm certification schemes during the previous 12 months, while approximately a third (85) said that had not done so, and approximately 4% (10) indicated they were unsure (Table 2). There was a slight increase in the percentage of participants who stated that they participated in farm certification schemes between the two surveys (+7%).

Table 2. Number and percentage of farmers participating in farm certification schemes in past 12 months

	2020 Baseline		**2021-22 Current**		**% Change (Baseline vs Current)**
	n	*%*	*n*	*%*	
Yes	154	54%	152	62%	+7%
No	106	37%	85	34%	-3%
Unsure	23	8%	10	4%	-4%
TOTAL	283		247		

3. What is the name (or names) of any such farm certification scheme(s) that you participated in during the past 12 months? Please list schemes in order of importance to yourself - most important scheme first to the least important scheme last.

For the current survey, of the 152 respondents who participated in a farm certification scheme in the past 12 months, 142 named at least one farm certification scheme in which they participated. Roughly half of these respondents (66) also participated in a second scheme, while nearly a quarter of them (31) also participated in a third scheme. Between the two surveys there was an overall increase in the percentage of participants who stated that they participated in either 1, 2 or 3 farm certification schemes (Table 3).

Table 3. Number and percentage of farmers in a scheme who participated in 1, 2 or 3 certification scheme(s)

Number of schemes	**2020 Baseline**			**2021-22 Current**			**% Change (Baseline vs Current)**
	n	*% of Question*	*% of Sample*	*n*	*% of Question*	*% of Sample*	
1	127	100%	41.9%	142	100%	57.5%	+16%
2	64	50.4%	21.1%	66	46.5%	26.7%	+6%
3	30	23.6%	9.9%	31	21.8%	12.6%	+3%

In both surveys, respondents were requested to rank the farm certification schemes in which they participated in order of the schemes' importance to themselves. Table 4 overleaf shows the schemes that farmers participated in in the current survey and the number of respondents who rated different schemes at the first, second and third ranks. NZFAP and GlobalGAP were the most frequently used schemes, with both used by over one-tenth of respondents. These two schemes were followed in frequency by Fonterra Co-Operative Difference (6.5%), Organic Farm NZ (5.0%) and farm environment plans (4.5%).

Table 5. Farm certification scheme participation (Current Survey 2021-22)

Farm certification schemes	**No. of respondents ranking scheme most important**	**No. of respondents ranking scheme 2nd most important**	**No. of respondents ranking scheme 3rd most important**	**Total no. of respondents using scheme**	**Percent of total responses**
NZFAP	27	5	0	32	15.9%
GlobalGAP	19	4	0	23	11.4%
Fonterra Co-operative Difference	9	3	1	13	6.5%
Organic Farm NZ	9	1	0	10	5.0%
Farm Environment Plan	4	5	0	9	4.5%
Farm Assurance (Alliance Group)	8	0	0	8	4.0%
NZFAP Plus	3	2	3	8	4.0%
BioGro	5	1	0	6	3.0%
Merino ZQ	2	1	2	5	2.5%
Merino ZQRX	3	2	0	5	2.5%
NZGAP	4	1	0	5	2.5%
Global Animal Partnership	3	1	0	4	2.0%
ZespriGAP	3	1	0	4	2.0%
Silver Fern Farms	2	1	0	3	1.5%
SWNZ	3	0	0	3	1.5%
Synlait Lead With Pride	3	0	0	3	1.5%
All Other Schemes	*31*	*14*	*10*	*55*	*27.4%*
Total	**138**	**42**	**21**	**201**	

There were a further 47 unique responses for farm certification schemes each of which was only mentioned once or twice in the current survey results. These included schemes such as: AsureQuality Organic, FarmEx, Fonterra Tiaki, Fonterra Trusted Goodness, Grasp, Hua Parakore, Land To Market, Tatua 360, and Toitu, among others. In comparison with the baseline, the specific schemes used by participants changed between surveys (see Table 6). Specifically, there were slight increases in the percentage of participants involved with organic schemes, while a slight decrease in the percentage of participants involved with GAP or Silver Fern Farms schemes.

Table 6. Farm certification scheme participation (Baseline 2020 vs Current Survey 2021-22)

	2020 Baseline - Total Responses		2021-22 Current - Total Responses		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
GAP	43	21%	29	14%	-6%
NZFAP	43	21%	40	20%	-1%
Silver Fern Farms	16	8%	3	1%	-6%
Fonterra	13	6%	19	9%	+3%
Merino NZ	9	4%	10	5%	+1%
Farm Environment Plan	7	3%	9	4%	+1%
Organic/BioGro	7	3%	18	9%	+6%
Councils	7	3%	2	1%	-2%
Synlait Lead With Pride	5	2%	3	1%	-1%
Alliance Group	5	2%	9	4%	+2%
GRASP	5	2%	2	1%	-1%
Firstlight Foods	4	2%	1	0%	-1%
AsureQuality NZ	3	1%	1	0%	-1%
MPI	3	1%	1	0%	-1%
Affco	3	1%	1	0%	-1%
Zespri	2	1%	4	2%	+1%
Overseer	2	1%	0	0%	-1%
Food Safety Act	2	1%	0	0%	-1%
TOTAL RESPONSES	208		201		

4. During the past 12 months, how many times were you audited for compliance with the farm certification scheme(s) in which you participated?

For the current survey, of the 152 respondents who participated in a farm certification scheme, 140 gave interpretable responses to the question regarding the number of times their schemes were audited during the past 12 months. While approximately 9% of farmers (13) participating in farm certification schemes did not get audited during the past 12 months, the majority (54%) were audited once, with 22% being audited twice. Thirteen farms (11.2%) were audited 3 or more times. The mean number of times respondents were audited in the past 12 months was 1.86 (standard deviation = 3.47, Min = 0, Max = 40). Compared against the baseline results, there was a slight decrease in the percentage of farms audited once (-5%) and a slight increase in the percentage of farms audited twice (+6%) or three times (+3%) (Table 7).

Table 7. Number of times and percentage of respondent farms audited in the past 12 months

Number of audits	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	%	*n*	%	
0	17	14%	13	9%	-4%
1	74	59%	76	54%	-5%
2	20	16%	31	22%	+6%
3	8	6%	13	9%	+3%
4	3	2%	3	2%	0%
5	2	2%	0	0%	-2%
6 or more	1	1%	4	3%	+2%
TOTAL	125		140		

5. Did the farm certification scheme(s) that you participated in during the past 12 months include financial indicators?

For the current survey, more than 78% of respondents claimed there were no financial indicators in the farm certification schemes in which they participated. A further 10% of respondents who participated in farm certification schemes were unsure if their schemes included financial indicators, while only 11% stated their schemes included financial indicators, with little change between the two surveys observed (Table 8).

Table 8. Number and percentage of farmers with and without financial indicators in their schemes

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Yes	17	13%	16	11%	-2%
No	99	77%	112	78%	+1%
Unsure	12	9%	15	10%	+1%
TOTAL	128		143		

6. How many financial indicators were included in your farm certification scheme(s)?

For the current survey, of the 16 farmers with financial indicators in the farm certification scheme, 15 responded to the question regarding the number of financial indicators. The average number of financial indicators for these 15 farms = 2.3 with 53% having only 2 financial indicators. There was very little change observed between the two surveys (Table 9).

Table 9. Number and percentage of farms with x number of financial indicators

Number of indicators	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
1	4	25%	4	27%	+2%
2	7	44%	8	53%	+10%
3	4	25%	1	7%	-18%
4	0	0%	1	7%	+7%
5	1	6%	0	0%	-6%
6-10	0	0%	0	0%	0%
11 or more	0	0%	1	7%	+7%
TOTAL	16		15		

7. Did the farm certification scheme(s) that you participated in during the past 12 months include environmental indicators?

For the current survey, more than 82% (116) of the 142 farmer respondents who participated in farm certification schemes claimed their schemes included environmental indicators. Just 10% (14) participated in schemes without environmental indicators and 8% (12) were unsure whether the scheme in which they participated included environmental indicators. There was very little change compared to the baseline survey (Table 10).

Table 10. Number and percentage of farmers with and without environmental indicators in their schemes

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Yes	106	83%	116	82%	-1%
No	16	13%	14	10%	-3%
Unsure	6	5%	12	8%	+4%
TOTAL	128		142		

8. How many environmental indicators were included in your farm certification scheme(s)?

For the current survey, of the 116 respondents with environmental indicators in their farm certification schemes, 93 responded to the question regarding the number of environmental indicators. Approximately one quarter of respondents (25) claimed to have 11+ environmental indicators in their certification schemes while another quarter claimed to have between 6-10. Thus, over 50% of respondents who participated in farm certification schemes had 6 or more environmental indicators in their schemes. A slight increase in the percentage of environmental schemes with 2 indicators was observed between the two surveys, with very little change otherwise observed (Table 11).

Table 11. Number and percentage of farms with x number of environmental indicators

Number of indicators	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
1	5	5%	3	3%	-2%
2	6	6%	13	14%	+8%
3	13	14%	8	9%	-5%
4	14	15%	9	10%	-5%
5	10	11%	11	12%	+1%
6-10	23	25%	24	26%	+1%
11 or more	23	25%	25	27%	+2%
TOTAL	94		93		

9. Did the farm certification scheme(s) that you participated in during the past 12 months include social indicators?

For the current survey, over 53% (70) of farmers participating in farm certification schemes claimed that social indicators were included in their schemes. Approximately 30% (39) said there were no social indicators in their scheme while 17% (22) were unsure. Very little change was observed between the two surveys for this question (Table 12).

Table 12. Number and percentage of farmers with and without social indicators in their schemes

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Yes	66	54%	70	53%	-1%
No	39	32%	39	30%	-2%
Unsure	18	15%	22	17%	+2%
TOTAL	123		131		

10. How many social indicators were included in your farm certification scheme(s)?

For the current survey, of the 70 respondents with social indicators in their scheme, 63 responded to the question regarding the number of social indicators in their scheme. Approximately 30% (18) had 6 or more social indicators in their scheme while approximately 70% had between 1 and 5 social indicators. There was a slight increase in the percentage of schemes including 2 social indicators between the two surveys, but otherwise very little change observed (Table 13).

Table 13. Number and percentage of farms with x number of social indicators

Number of indicators	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
1	4	7%	5	8%	+1%
2	11	18%	17	27%	+9%
3	11	18%	8	13%	-5%
4	7	12%	8	13%	+1%
5	6	10%	7	11%	+1%
6-10	13	21%	11	17%	-4%
11 or more	9	15%	7	11%	-4%
TOTAL	61		63		

11. Did the farm certification scheme(s) that you participated in during the past 12 months include cultural indicators?

For the current survey, approximately 20% (25) of respondents with farm certification schemes claimed to have cultural indicators in their schemes while 60% did not and a further 20% were unsure. There was a small increase in the inclusion of cultural indicators between survey years observed (Table 14).

Table 14. Number and percentage of farmers with and without cultural indicators in their schemes

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Yes	33	28%	25	20%	-8%
No	65	54%	77	60%	+6%
Unsure	22	18%	26	20%	+2%
TOTAL	120		128		

12. How many cultural indicators were included in your farm certification scheme(s)?

For the current survey, of the 25 respondents with cultural indicators in their schemes, 24 replied to the question regarding the number of cultural indicators. A quarter of respondents (6) with cultural indicators included in their schemes had only one cultural indicator, 29% had two cultural indicators and 13% had three. The average number of cultural indicators per farmer respondent was 3. As with the previous question, a small increase was observed in the percentage of schemes with cultural indicators, particularly those with 2, 4 and 6-10 cultural indicators (Table 15).

Table 15. Number and percentage of farms with x number of cultural indicators

Number of indicators	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
1	15	50%	6	25%	-25%
2	7	23%	7	29%	+6%
3	4	13%	3	13%	-1%
4	1	3%	3	13%	+10%
5	2	7%	0	0%	-7%
6-10	1	3%	4	17%	+14%
11 or more	0	0%	1	4%	+4%
TOTAL	30		24		

13. What did you like about the farm certification scheme(s) that you participated in during the past 12 months?

For the current survey, one hundred respondents replied to the question regarding what they **liked** about their farm certification scheme, contributing 125 responses (for this question, respondents were able to contribute more than one aspect). Of these, 106 (85%) responses mentioned aspects that they considered positive. These positive aspects fell under 9 broad categories, 7 of which were also observed in the previous survey. Table 16 below shows the broad categorisation of these aspects and the number of farmers liking each aspect. However, a further 19 (15%) respondents claimed that there was nothing they liked about their scheme, that it was a waste of time, and a financial and time burden that caused farmers stress. There were also very few differences observed between the two surveys other than a general reduction in the percentage of participants who liked nothing about their scheme(s) (Table 16).

Table 16. Number of farmers who reported liking particular aspects of their farm certification scheme(s)

Responses	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Quality assurance enabled premium market access (tells our story)	19	19%	17	14%	-6%
Ease of use	15	15%	20	16%	+1%
Increased farmer knowledge /improved farming practice	14	14%	17	14%	-1%
Broad scheme coverage of relevant farming areas	8	8%	3	2%	-6%
Enabled price premium	8	8%	12	10%	+2%
Talking to auditors helpful	4	4%	7	6%	+2%
Brings regulation together and set quality standards	4	4%	6	5%	+1%
Nothing, don't like it, waste of time, compliance cost	27	27%	19	15%	-12%
Measuring progress and outcomes	N/A	N/A	10	8%	
Positive (general)	N/A	N/A	14	11%	
TOTAL	99		125		

14. What did you dislike about the farm certification scheme(s) that you participated in during the past 12 months?

For the current survey, 97 respondents replied to the question regarding what they **disliked** about their farm certification scheme, contributing 134 discernible responses (for this question, respondents were able to contribute more than one aspect). Of these, 122 (91%) responses mentioned aspects of the schemes that they considered negative. These negative aspects fell under 10 broad categories. Table 17 below shows the broad categorisation of these aspects and the number of farmers disliking each aspect. However, a further 12 respondents claimed that there was nothing they disliked about their schemes. As with the previous question, there was very little difference between the two surveys (Table 17).

Table 17. Number of farmers who reported disliking particular aspects of their farm certification scheme(s)

Responses	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Compliance costs - time, effort, money	19	19%	31	23%	+5%
Replication/duplication of information requirements and data entry	18	18%	16	12%	-6%
Tedious, useless or irrelevant questions	13	13%	18	13%	+1%
Too much paperwork	8	8%	17	13%	+5%
No direct benefit for farmer	8	8%	14	10%	+3%
Stressful and invasive	7	7%	6	4%	-2%
Compliance with rules and regulation	5	5%	5	4%	-1%
The lack of environmental and/or social considerations	4	4%	5	4%	0%
Everything (about schemes disliked)	4	4%	0	0%	-4%
Auditors and consultants	4	4%	10	7%	+4%
Nothing (about schemes disliked)	12	12%	12	9%	-3%
TOTAL	102		134		

15. Thinking of the main farm certification scheme in which you participated during 2021, how satisfied/dissatisfied were you with it?

For the current survey, of the 152 respondents who participated in farm certification schemes during the previous 12 months, 121 replied to the question regarding their level of satisfaction with their main farm certification scheme**. With a mean of 4.64 and a standard deviation of 1.60, farmers are, in general, neutral to moderately satisfied with their main farm certification scheme**. Ninety-five respondents commented on why they felt satisfied or dissatisfied with their main farm certification scheme. Altogether these respondents made 32 positive comments, 45 negative comments, and 18 neutral or ambivalent comments. Thus, the quantity of positive, negative, and neutral comments, of the qualitative responses, reflects well the finding from the quantitative satisfaction level question. In general, the negative comments reflected similar sentiments to the aspects of schemes that were disliked, while positive comments reflect similar sentiments to what respondents liked about the schemes. Table 17 shows a comparison of farmers' level of satisfaction with their main scheme and the number and percentage of farmers rating at each level for both surveys, showing little change between surveys (Table 18).

Table 18. Level of satisfaction with main farm certification scheme

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Very dissatisfied (1)	7	6%	5	4%	-2%
(2)	4	4%	11	9%	+5%
(3)	7	6%	8	7%	+1%
Neutral (4)	28	26%	30	25%	-1%
(5)	26	24%	26	21%	-3%
(6)	29	27%	27	22%	-5%
Very satisifed (7)	8	7%	14	12%	+5%
TOTAL	109		121		

Demographics

16. Which best describes the nature of your business? (Tick all that apply)

Of the 247 total respondents, 142 replied to the nature of their business question. Note that participants were able to select multiple answers for this question. Over a third (93) of responses indicated that most participants were sheep and beef farmers, followed by horticulturalists (63), and dairy farmers (44). Sixteen comments (i.e., *Other, please specify*) indicated a range of other activities, including dairy support, deer, horses, wool, and tourism. There was a slight decrease in the number of sheep and beef (-22) and dairy farmers (-14) from the baseline to the current survey, with a slight increase in the number of horticulturalists observed (+15) (Table 19).

Table 19. Nature of respondents' farming business: number

	2020 Baseline	2021-22 Current	Change (Baseline vs Current)
Agriculture – Dairy	58	44	-14
Agriculture – Sheep and Beef	115	93	-22
Agriculture – Other	16	15	-1
Viticulture	0	4	+4
Horticulture	48	63	+15
Arable	17	14	-3
Other land-based business	N/A	16	
TOTAL	254	233	

17. Which region in New Zealand is your farm business located?

Of the 247 total respondents, 213 gave their regional location. As with the baseline survey, Waikato (15%), Canterbury (14%) and Otago (13%) contributed the most respondents to the survey. There was very little change observed between the two surveys (Table 20).

Table 20. Region of respondents' farm location

	2020 Baseline		2021-22 Current		% Change (Baseline vs Current)
	n	*%*	*n*	*%*	
Auckland	10	5%	6	3%	-2%
Bay of Plenty	16	7%	25	12%	+4%
Canterbury	33	15%	29	14%	-1%
Gisborne	8	4%	2	1%	-3%
Hawke's Bay	16	7%	12	6%	-2%
Manawatu-Wanganui	14	6%	13	6%	0%
Marlborough	1	0%	3	1%	+1%
Nelson	1	0%	2	1%	0%
Northland	12	5%	15	7%	+2%
Otago	23	10%	27	13%	+2%
Southland	12	5%	11	5%	0%
Taranaki	11	5%	5	2%	-3%
Tasman	9	4%	5	2%	-2%
Waikato	42	19%	32	15%	-4%
Wellington	11	5%	20	9%	+4%
West Coast	1	0%	6	3%	+2%
TOTAL	220		213		

18. How old are you?

For the current survey, 201 of the 247 total respondents volunteered their age. These respondents' ages ranged between 18 and 99 with a mean of 52.6 years and a standard deviation of 14 years.

Discussion

This survey followed up a baseline survey to measure KPIs for the OLW Challenge – specifically, measuring participation in farm certification schemes. The data tables in the Results section provide a side-by-side comparison of the baseline (2020) and current survey (2021-22) results, thereby measuring progress from the baseline during the life of the programme.

There are numerous farm certification schemes available for farmers to participate in. For the current survey, over half of respondents participated in at least one farm certification scheme during the 12 months prior to their completion of this survey, with 27 per cent participating in two, and 13 per cent participating in at least three schemes. Farmers and growers continue to be involved with schemes that include financial, environmental, social and cultural indicators, with environmental indicators being the most common, and financial indicators being the least common in these schemes.

In comparing the current survey results with those of the baseline survey, there has been very little change between the two, suggesting little change in farmer participation in farm certification schemes over this period. However, there was a small increase in overall participation in farm certification schemes (+7%). There has been little change in the number of schemes that include all four types of indicators (financial, environmental, social, and cultural), or the overall number of indicators of each type included in these schemes.

As seen with the previous survey, respondents both liked and disliked numerous aspects of the farm certification schemes they participated in. For the current survey, the three most liked aspects were 1) *ease of use of schemes*; 2) *quality assurance enabling premium market access ('telling our story')*; and 3) *increased farmer knowledge and improved farming practice*. As with the baseline survey, the three most disliked aspects of their schemes were 1) *compliance costs (time, effort, money)*, 2) *duplication of information and data entry*, and 3) *tedious, useless and irrelevant questions*. There was very little change in these results between the two surveys.

Study limitations

The current study, as with the baseline study, has some limitations that should be noted. Due to social science ethics procedures (voluntary participation), the survey cannot be considered random. Therefore, it is not possible to say how well the survey respondent data estimates the actual sample population data. To try to ameliorate for this data limitation, the current survey has used the same methodology and data collection techniques as the previous, to compare like with like.

Another limitation is the small sample size of the response to some questions. This was due to funnelling effects where a response could only be made to some questions if a particular response had been made to a previous question. Although some questions had low response rates for this reason, most respondents eligible to respond to a question did so.

A third limitation to the quality and accuracy of the data is that farmers were asked to estimate the number of indicators in the scheme in which they participated for each of the four wellbeing dimensions. These were subjective estimates and the accuracy of the number of indicators is unknown. It may be of value to examine the most common farm certification schemes and count the actual number of metrics included for each dimension. This information could provide a check on the accuracy of the survey data.

Appendix 1 - Sampling and collector information

The following information was supplied by Annabel McAleer, senior communication advisor at Our Land and Water, for ensuring that the same methodology and procedures used for collecting data in the current survey may be repeated with fidelity in follow-up surveys.

Direct requests

Requests to share were made via direct email to comms staff at the following organisations (names removed) on 12 June:

@horticentre.co.nz; @pggwrightson.co.nz; @villamaria.co.nz; @farmlands.co.nz; @agrichain-centre.com; @canseed.co.nz; @redstagtimber.co.nz; @waikatomilking.co.nz; @ballance.co.nz; @zespri.com; @fonterra.com; @opencountry.co.nz; @cropmark.co.nz; @silverfernfarms.co.nz; @phpr.co.nz; @fonterra.com; @tatua.com; @vigour.co.nz; @pmac.co.nz; @lic.co.nz; @darlinggroup.co.nz; @tandg.global; @luisettiseeds.co.nz @agcarm.co.nz; @teawanui.co.nz; @waiwanaka.nz; @landcare.org.nz; @itm.org.nz; @youngfarmers.co.nz; @mpi.govt.nz; @dirtroadcomms.co.nz; @potatoesnz.co.nz; @dairynz.co.nz; @beeflambnz.com @oanz.org; @nzkgi.org.nz; @applesandpears.nz; @hortnz.co.nz; @nzavocado.co.nz; @far.org.nz; @blackcurrant.co.nz; @fedfarm.org.nz; @rmnz.co.nz; @nzfm.co.nz; @hortnz.co.nz; @irrigationnz.co.nz; @agresearch.co.nz; @nzwine.com

Second request (26 June) was made to: @far.org.nz; @dairynz.co.nz; @dairynz.co.nz>; @fonterra.com

Known stakeholder shares of website collector:

- Federated Farmers – Friday Flash email – shared twice.
- Foundation for Arable Research (FAR) said would share but didn't on social media; may have shared via email.

Twitter

Ad: https://twitter.com/OurLandandWater/status/1545377160076066817

- Spend: $140
- 9 – 25 June
- Cost per link click $0.12
- Link click rate 11.95%
- Impressions (times people saw tweet): 9976
- Total engagements (times people interacted with tweet): 1193
- Link clicks (clicks on URL): 1192

Non-promoted tweet: https://twitter.com/OurLandandWater/status/1545232774436597760

- Impressions (times people saw tweet): 437
- Total engagements (times people interacted with tweet): 16
- Link clicks (clicks on URL): 4
- Retweeted 2 times by Ag & Rural Events, Beef + Lamb NZ

Facebook

Post:
https://www.facebook.com/OurLandandWater/photos/a.1781300835529424/3312713679054791 (7 July)

Reach: 3345
Engagements: 20
Link clicks: 66

Ad: https://fb.me/1MkZLKEIM3ynVi2 (7 July)

- Spend: $99.44
- 7 – 24 June
- Cost per link click: $0.44
- Reach: 10,406
- Link clicks: 266
- Shared 5 times, including by Otago Rural Support Trust, Beef + Lamb NZ, BHU.

LinkedIn

Post: https://www.linkedin.com/posts/ourlandandwater_calling-all-farmers-growers-and-land-based-activity-6950598761429487616-ztCb/

- Impressions: 237
- Engagements: 24
- Engagement rate: 10.1%
- Clicks: 16
- Shared by Paul McGill and Laura Keenan

Email 1

Subject: 📢 Calling all producers, farmers, growers! Please participate in a survey about farm certification schemes

Sent date: 7 July 2022 1:45 PM

Sent to 896, to those in the OLW databased tagged Farm Advisor OR Catchment Group OR Farmer / Grower OR where audience category is 'unknown'

- Successful deliveries 894
- Bounces 2
- Open rate 39.7%
- Unique opens 355
- Total opens 926
- Click rate 10.4%
- Unique clicks 93
- Total clicks 129

Email 2

Subject: 📢 Calling all producers, farmers, growers! Please participate in a survey about farm certification schemes

Sent date: 13 July 2022 12:15 PM

Sent to 546 – those who didn't open email 1

- Successful deliveries 546
- Bounces 0
- Open rate 19%
- Unique opens 104
- Total opens 200
- Click rate 5.5%
- Unique clicks 30
- Total clicks 63

Email 3

Subject: 📢 Calling all producers, farmers, growers! Please participate in a survey about farm certification schemes

Sent date: 20 July 2022 11:07 AM

Sent to 219 – those who didn't open email 2

- Successful deliveries 219
- Bounces 0
- Open rate 20.1%
- Unique opens 44
- Total opens 101
- Click rate 2.7%
- Unique clicks 6
- Total clicks 8