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Manaaki Whenua  
Landcare Research

Rural Decision Makers  
**SURVEY 2019**


Insights for forestry  
NZFFA National conference 2021




Ministry for Primary Industries  
Manatū Ahu Matua

Ministry for the  
**Environment**  
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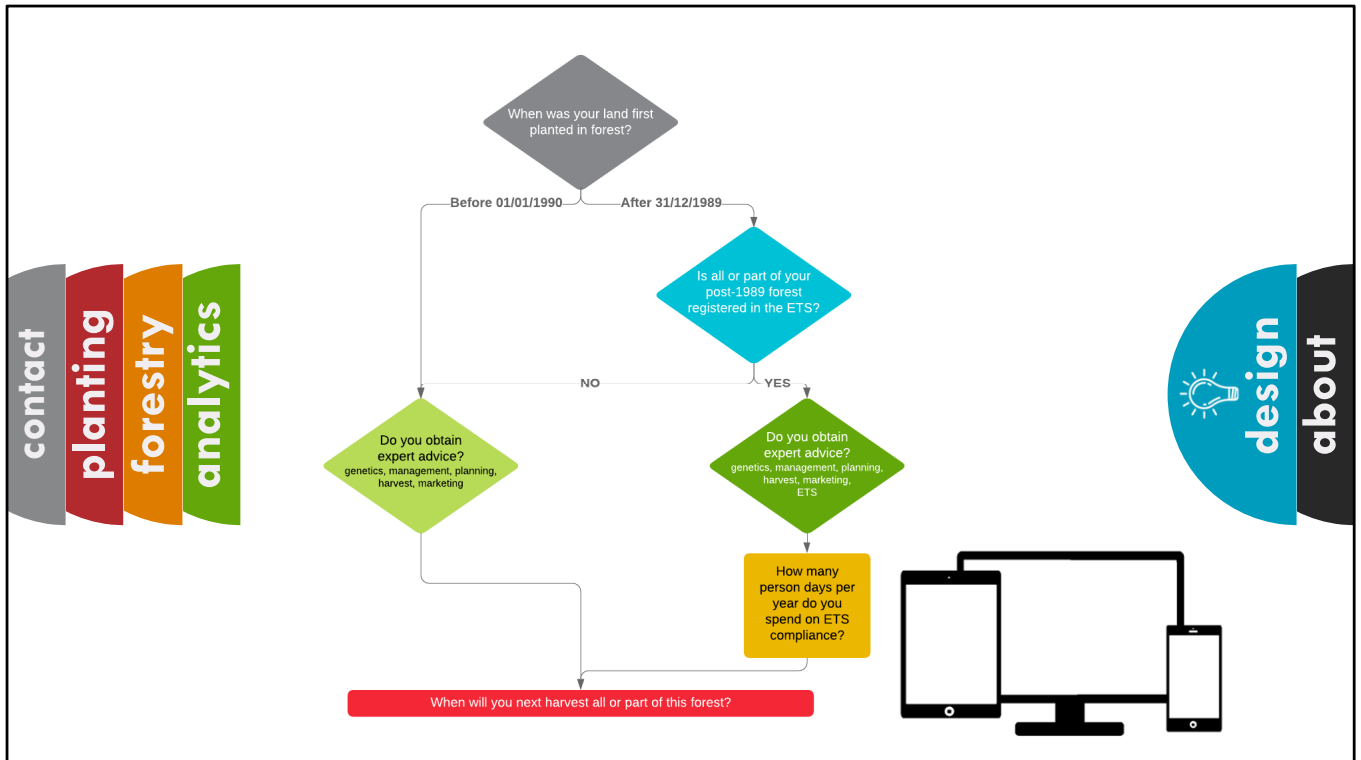
MINISTRY OF BUSINESS,  
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HĪKINA WHAKATUTUKI



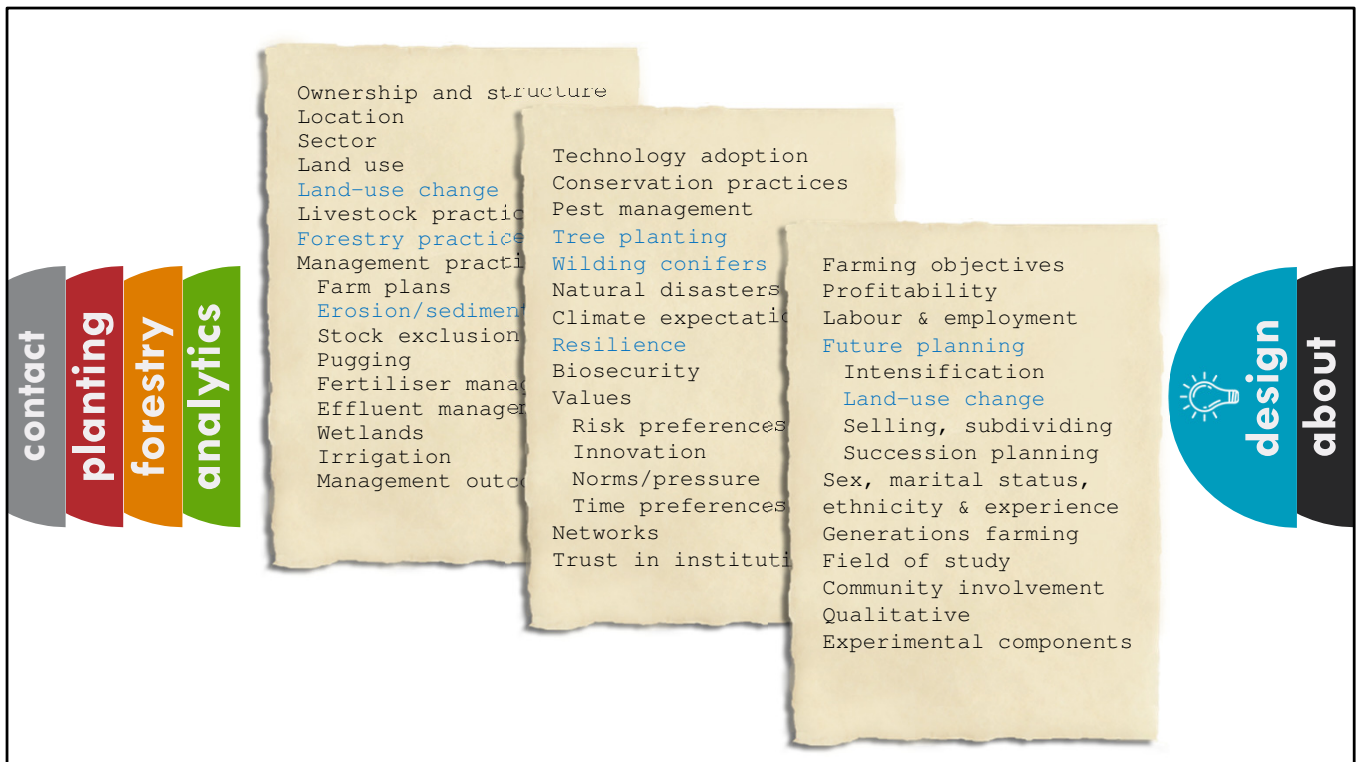
- Tēnā koutou katoa.
- Thank you for inviting me today.
- Quite a short presentation
  - I won't be able to cover everything we've learned about forestry or tree planting – not by a long way
  - Instead, what I'll do is provide an introduction to the SRDM, show a few results, and then invite you to start a conversation about future interests



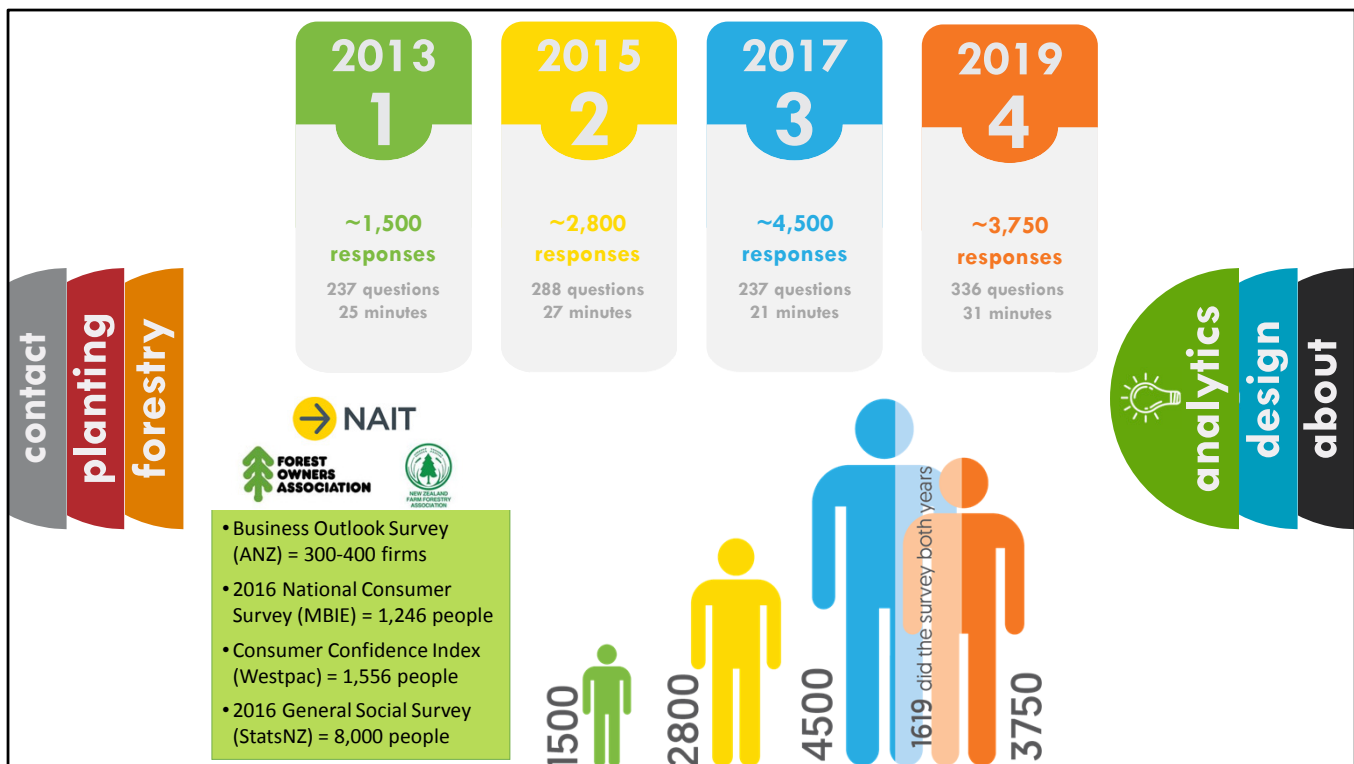
- The SRDM began in 2013, when we were commissioned to survey dairy farmers in the Waikato, Canterbury, and Southland.
- Manaaki Whenua recognized the opportunity to better understand decision making, not only in those three regions, but all across rural New Zealand. <click>
- We also strove to be inclusive, covering foresters as well as farmers – essentially the totality of primary industry. <click>
- In developing the questionnaire, we relied on industry partners to help us identify key knowledge gaps. <click>
- There has also been a great deal of input from central and regional governments as well as farmers and foresters. Scientists across New Zealand have also contributed to survey design.
- I have lost count of how many people have contributed to questionnaire development at this point, but the number is north of 100, and it includes Hamish Levack, Howard Moore, Egon Guttke, and Neil Cullen
- Gratifyingly, there has also been a great deal of interest in the outputs <click>
- Here are some logos of organisations that I am aware of having used the data. These include central government, regional councils, CRIs, National Science Challenges, New Zealand universities, and international universities.



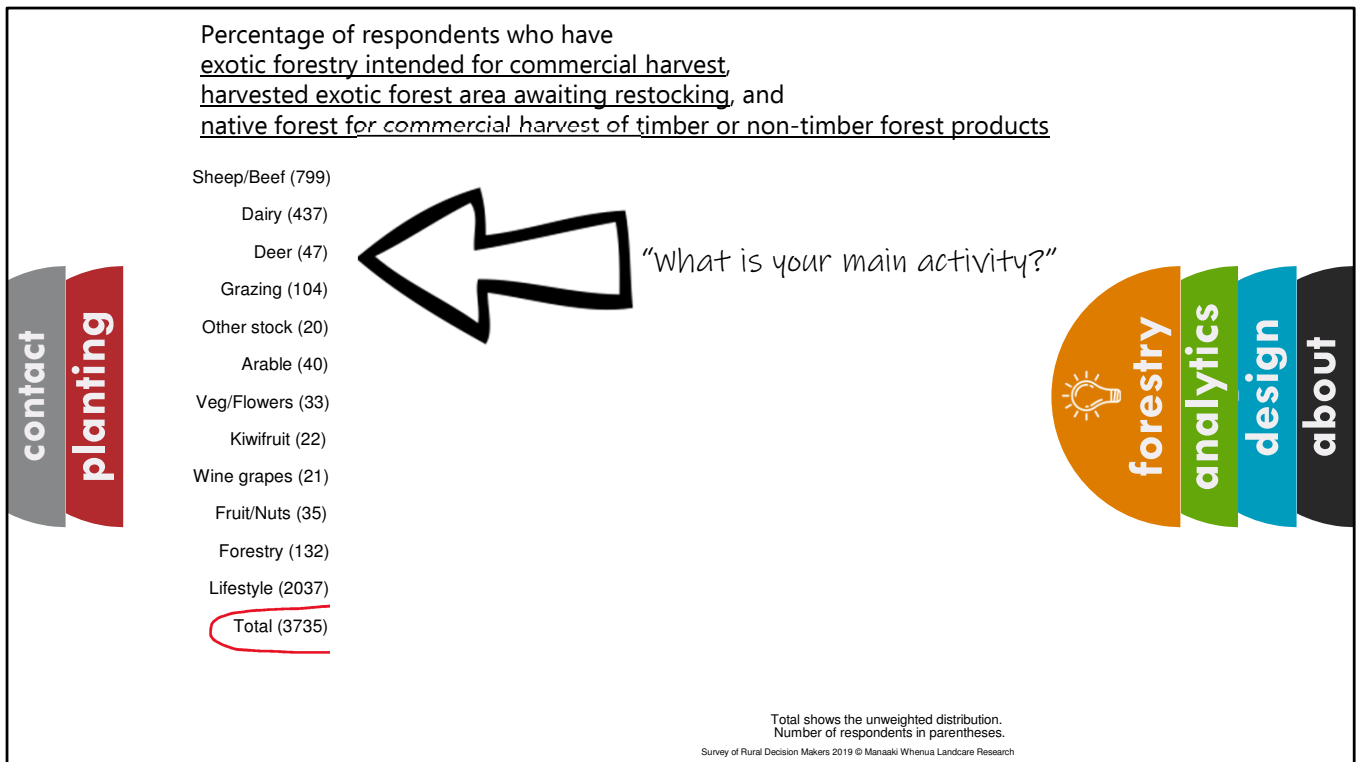
- The survey is designed to be taken on a computer, but it has also been optimized for mobile devices. In fact, about 1/3 of respondents now complete the survey on a mobile device.
- There are a lot of advantages to electronic survey enumeration. For me, the most important is ‘survey logic’ or ‘branching’, which means that the questions that appear can depend on answers to previous questions. Let me give you an example. <click>
- Respondents who indicate that they have any land planted in forestry were asked when the land was planted. If their forest is pre-1990, the next question they see is about whether they seek expert advice. <click>
- If their forest is post-1989, the next question they see is whether they are registered in the Emissions Trading Scheme. If not, then they then see the same question about advice. <click>
- But if they are registered in the Emissions Trading Scheme, then they’re asked about those same advice topics as well as advice related to the ETS. These respondents then see other questions related to the ETS before moving on to questions that all respondents see in common.



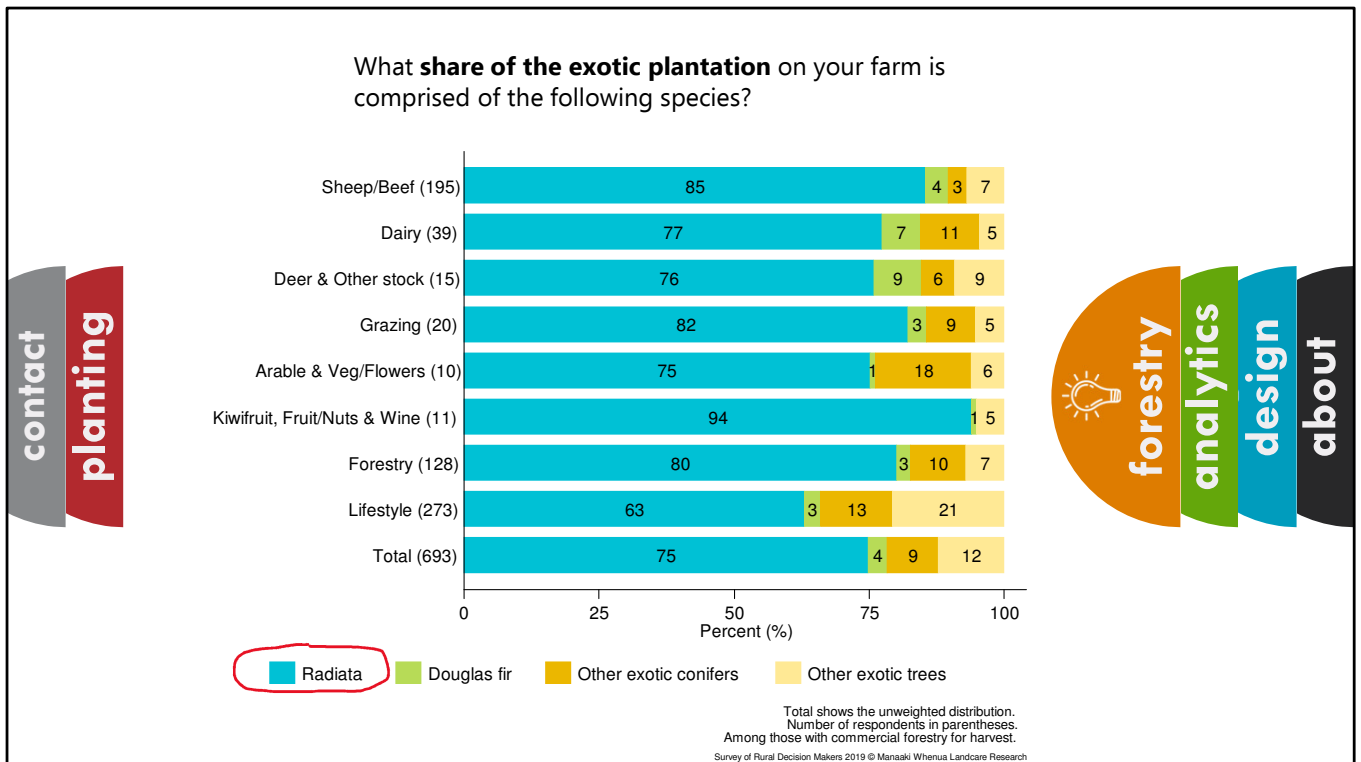
- The survey covers a few of the topics that other surveys of farmers and foresters cover, especially ownership, location, structure, and land use. But as you can see from this list of high-level topics that we've covered since 2013, the SRDM also covers topics such as management practices, <click>
- Tree planting, conservation practices, natural disasters, climate change, values such as risk preferences and time preferences, and professional networks. <click>
- It covers objectives, profitability, future planning, generations that they've been on the land, and community involvement.
- In short, it also goes beyond that 'WHAT' and 'WHERE' of rural land use to cover the 'WHY', 'WHEN' and 'HOW'.
- Many questions have been included since the survey began, giving us the ability to look at trends over time.



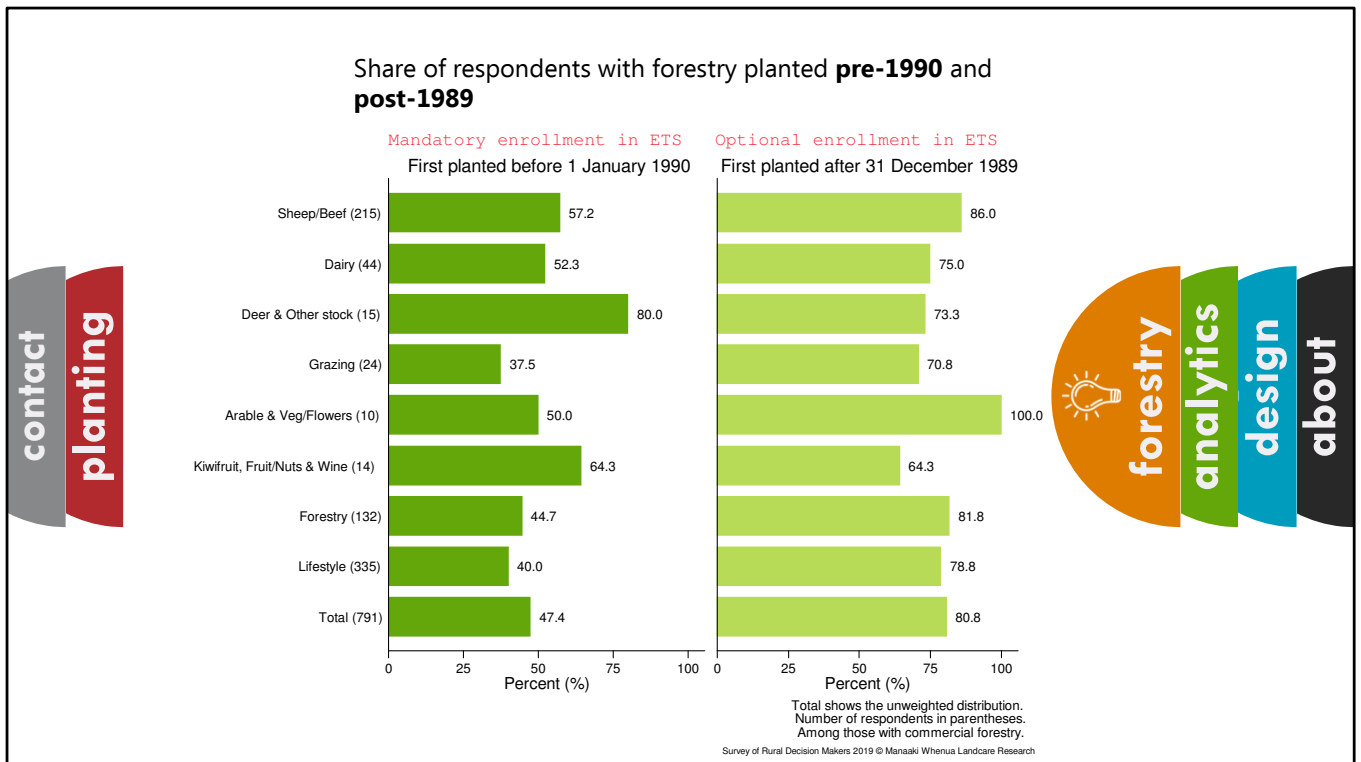
- The 2013 survey had 237 questions and 1500 responses.
- By 2015, this grew to 288 questions and 2800 responses
- In 2017, it was 237 questions and 4500 responses.
- And in 2019, it was 336 questions and 3750 responses. <click>
- Importantly, more than 1600 of the respondents in 2019 also completed the survey in 2017, meaning that we can use 2017 as a baseline for assessing attitudes and behaviours over time for the same respondents.
- How do these numbers compare? According to StatsNZ, there are about 50,000 commercial operators. MPI estimates that there are about 140,000 lifestyle blocks. Based on those numbers, we cover 3.5% of commercial operations and 1.4% of lifestyle blocks <click>
- In comparison, there are over half a million business enterprises in NZ, and the ANZ Business Outlook Survey covers 400 of them, or 0.08%. The General Social Survey samples 8000 people out of 5 million kiwis, or 0.02%.<click>
- And the reason that we're able to reach as many people as we are is because of industry partners who embrace science for the public good. In this regard, I'd especially like to acknowledge the support of NZ Farm Forestry Association in helping us to reach a large number of foresters.
- OK, so with that background, I'm going to start showing some results from the survey. I'll begin with results from forestry and then move on to results for tree planting.



- The survey asked people to list ALL of the activities on their land, and then it asked about the MAIN activity on their land.
- So, for example, 799 said that raising sheep and beef is their main activity, and many of these will also have forestry.
- We also had 132 commercial foresters for whom forestry is the main activity. <click>
- The first question relevant for us today is whether respondents have any forestry on their properties. Forestry here is defined as exotic plantation, native timber intended for commercial harvest, and native timber intended for harvest of non-timber forest products. <click>
- Overall, about 21% of our respondents have forestry on their properties, although I would note that we oversample the dairy, deer, and arable industries and under-sample fruit and vegetable growers (sheep and beef and forestry are right on the money).

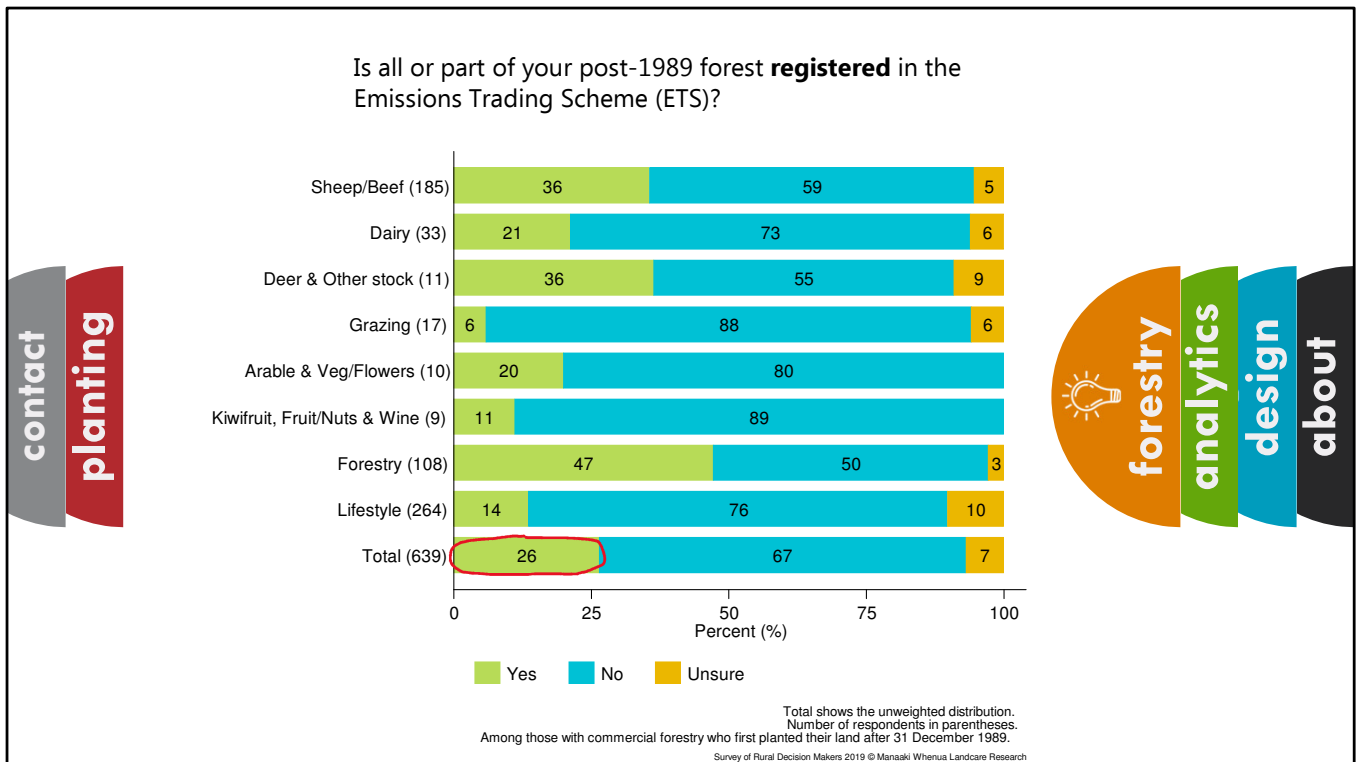


- Not surprisingly, the vast majority of exotic forestry is comprised of radiata pine, regardless of industry.

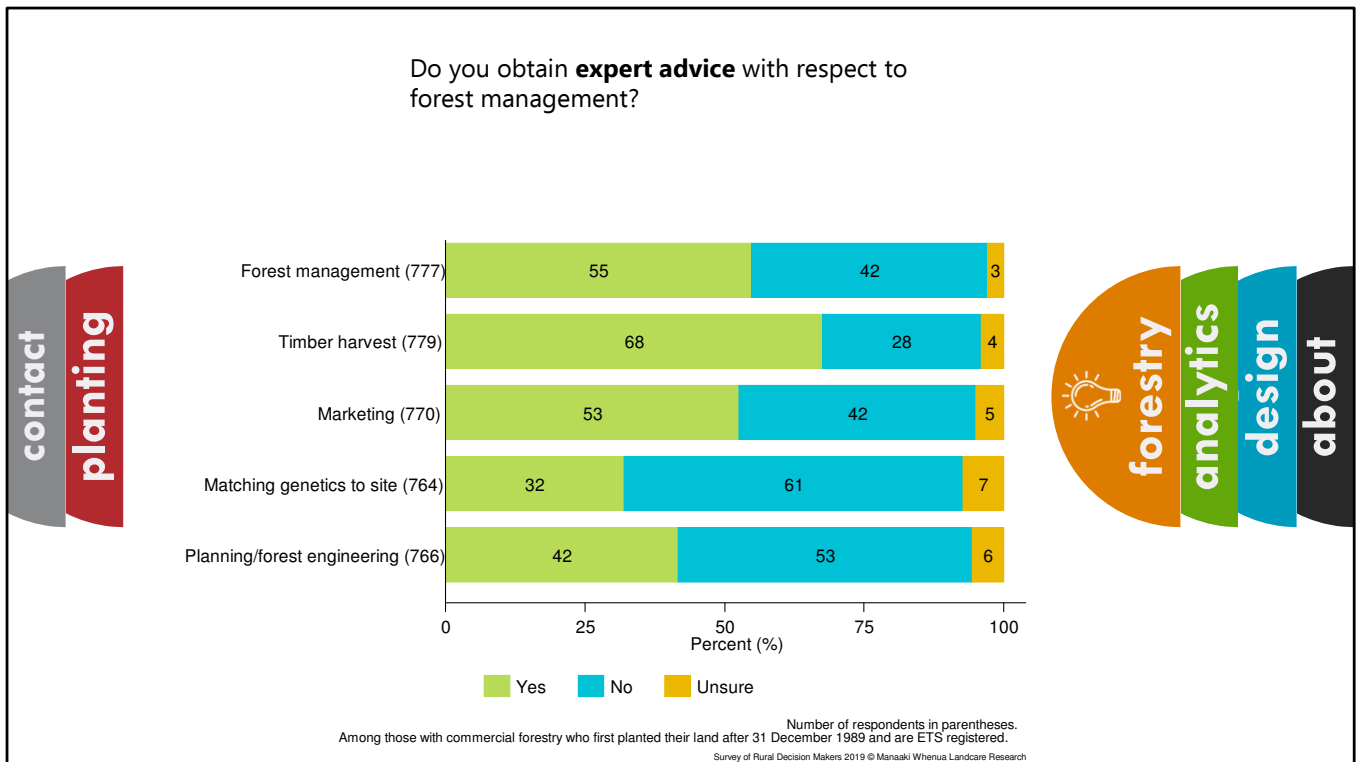


- This slide shows when commercial forestry was planted by industry, whether it's pre-1990 or post-1989. <click>
- The critical difference is that enrollment in the ETS is optional for forests planted after 1989.
- So, this slide is telling us that among sheep and beef farmers with commercial forestry, 57% have pre-1990 forests and 86% have post-1989 forests.
- Overall, most commercial forests (not necessarily by land area, but by land owner) are post-1989, when enrollment in the ETS was optional.

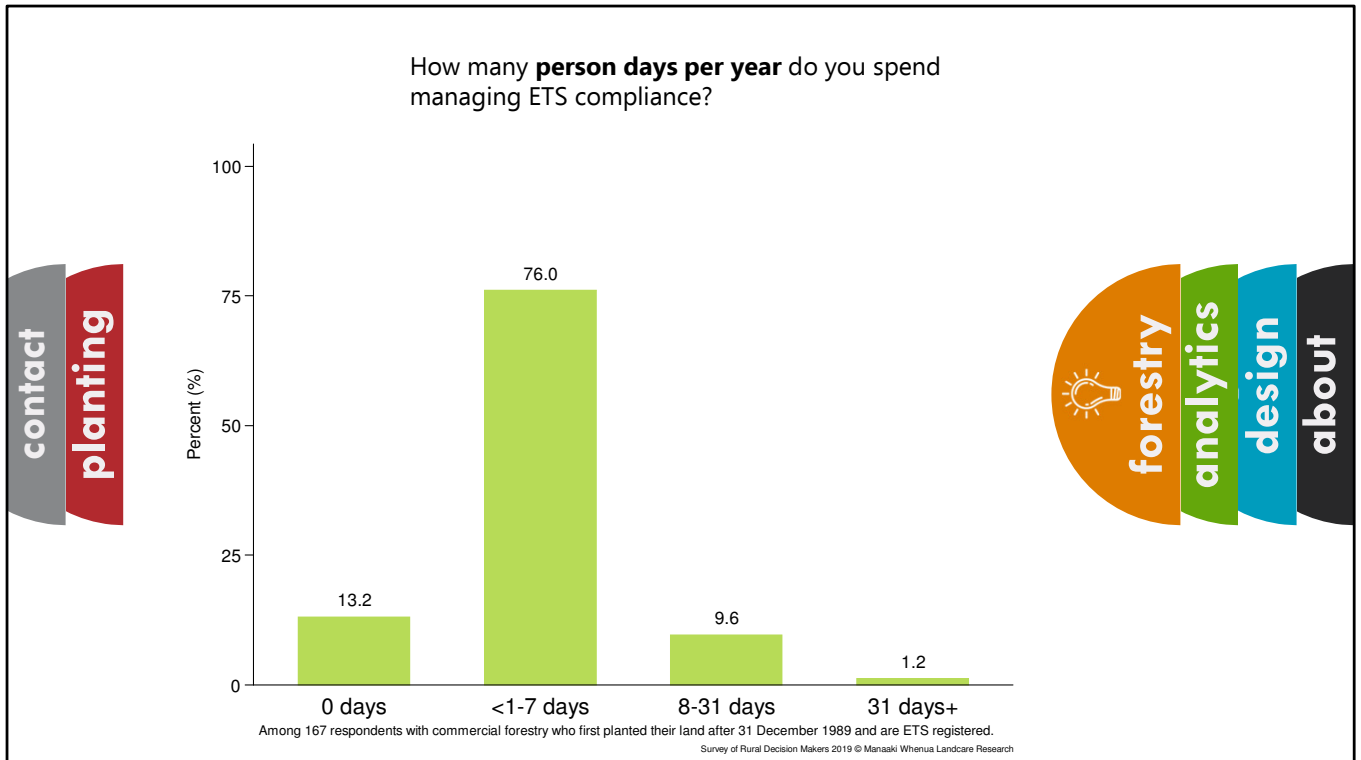




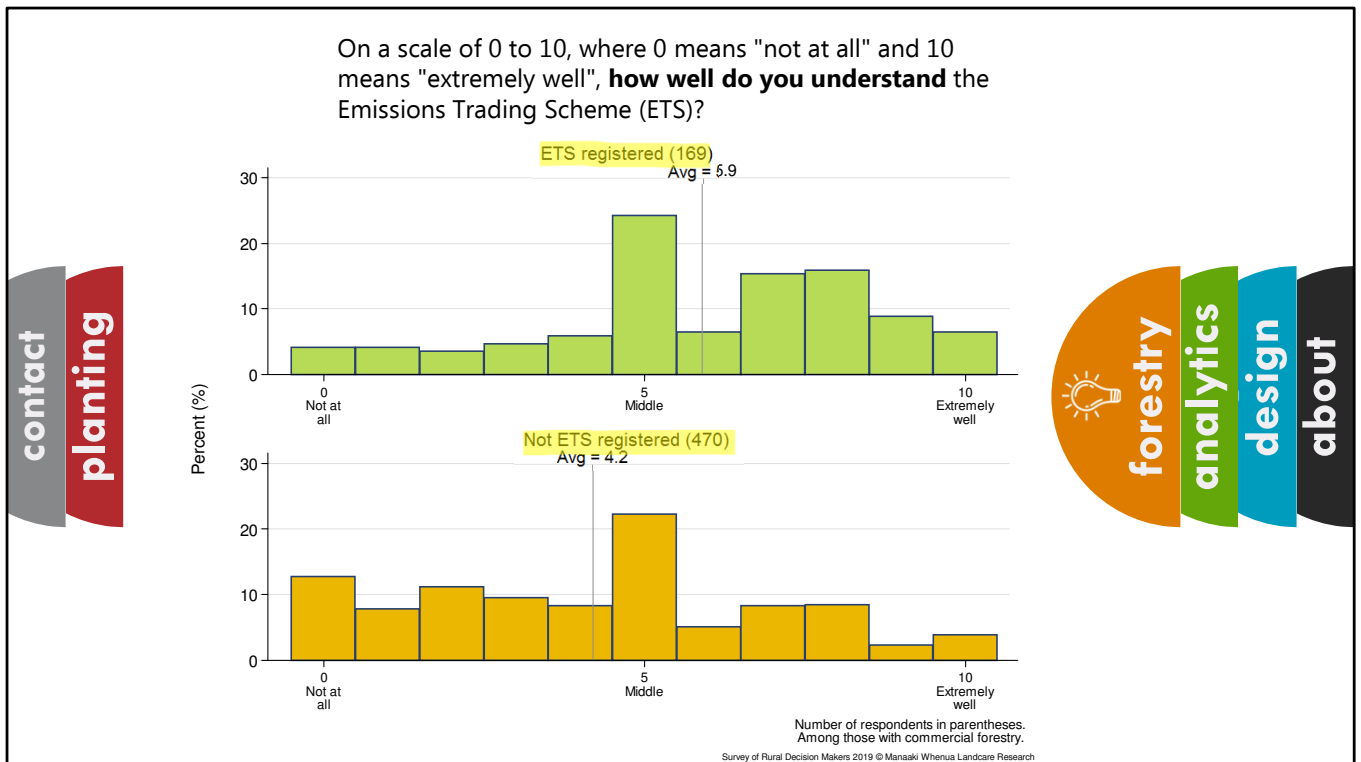
- And here, respondents with post-1989 forests were asked whether they enrolled in the ETS. <click>
- Overall, about one quarter of them have,



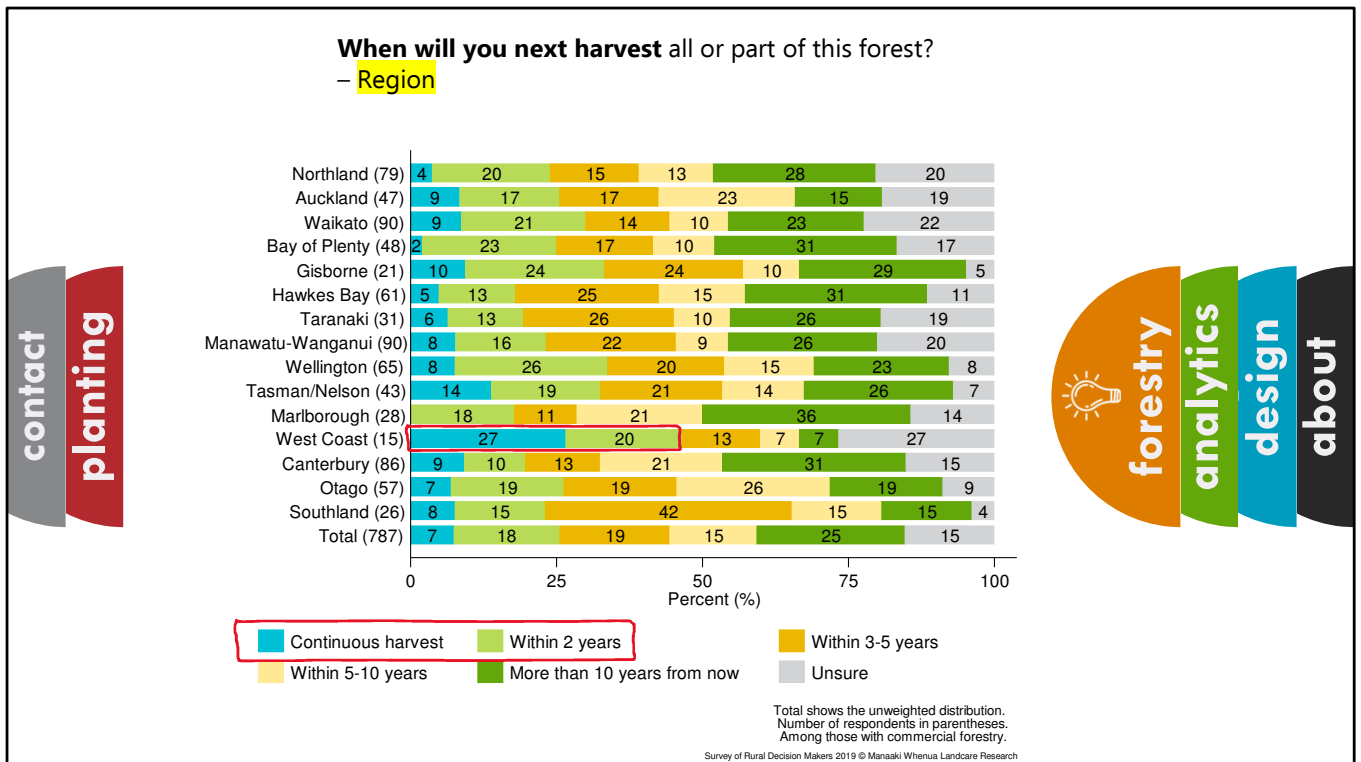
- In this slide, respondents with forestry are reporting the areas in which they seek expert advice.
- So, you can see that only about 1/3 of people with commercial forestry seek advice on genetics while about 2/3 seek advice on timber harvest. <click>
- In comparison, about 3/4 of those who enrolled in the ETS seek expert advice on managing their participation, more than who seek advice about any other topic



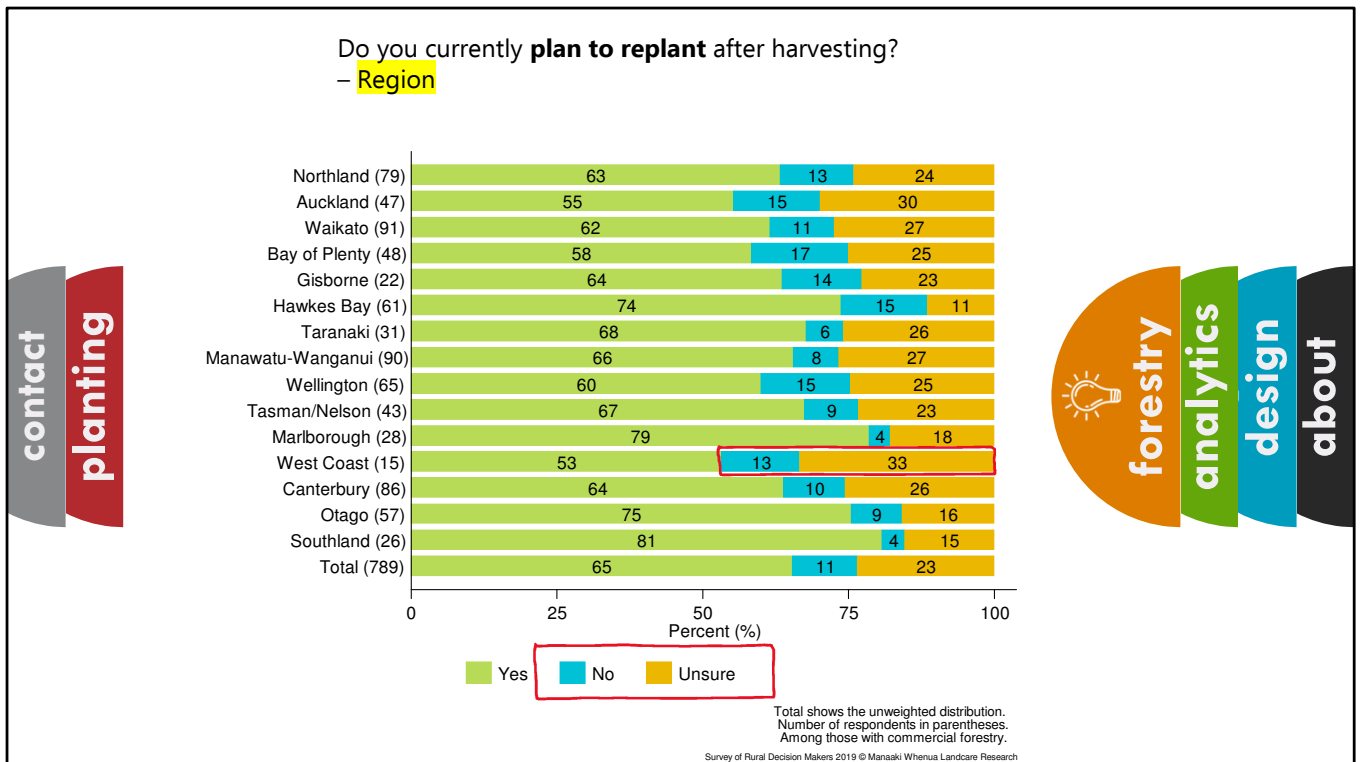
- This slide shows how many days it takes to manage ETS compliance over the course of a year.
- Over 3/4 of respondents enrolled in the ETS spend between one and seven person days per year managing participation.
- 13% report spending spend less than 1 day managing ETS participation
- 11% report spending more than eight person days.



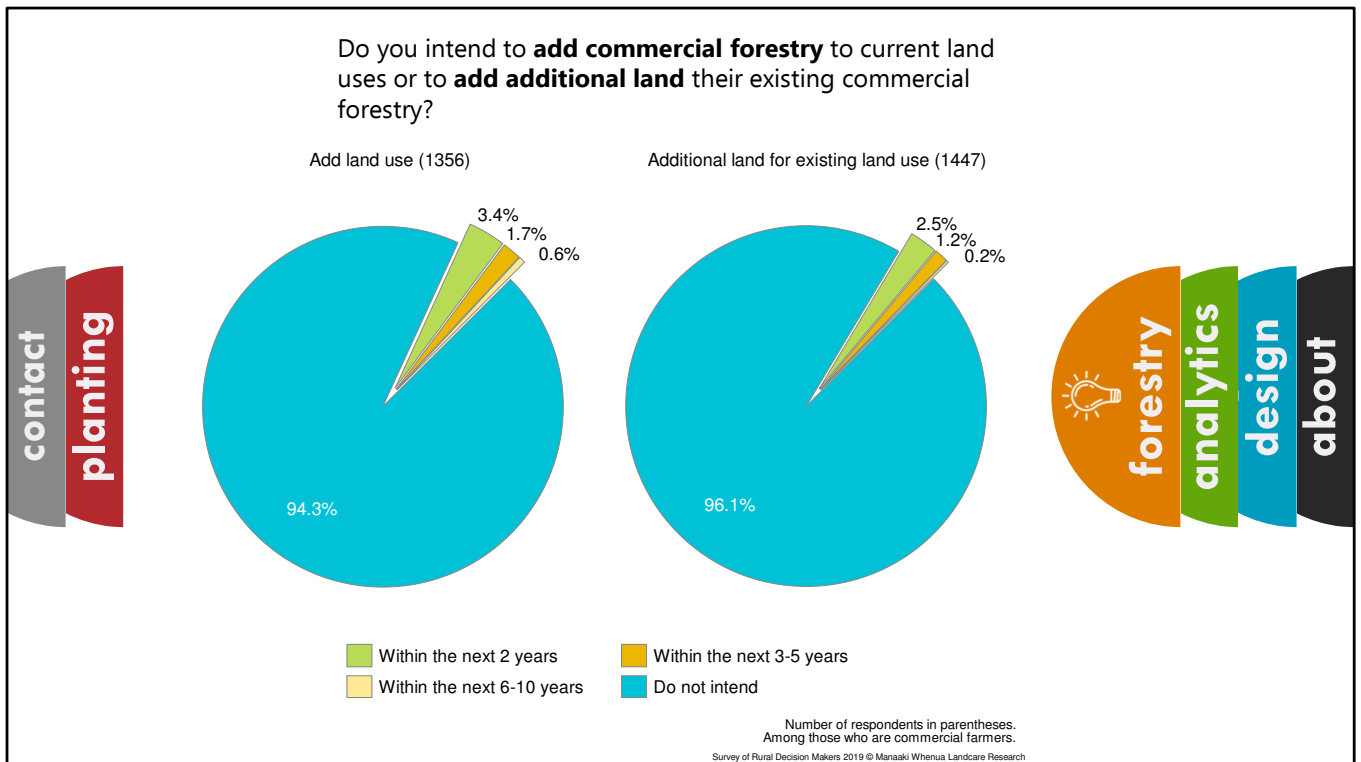
- Now, we report on how well respondents understand the ETS. <click>
- The top panel shows the results for those who are ETS registered and the bottom shows results for those who are not. The histograms show the range of responses from 0 ('not at all') to 10 ('extremely well').
- The optimistic way of reading these figures is that people who are enrolled understand the ETS much better than those who aren't. The pessimistic view is that the vast majority of people understand the ETS less well than we might like.



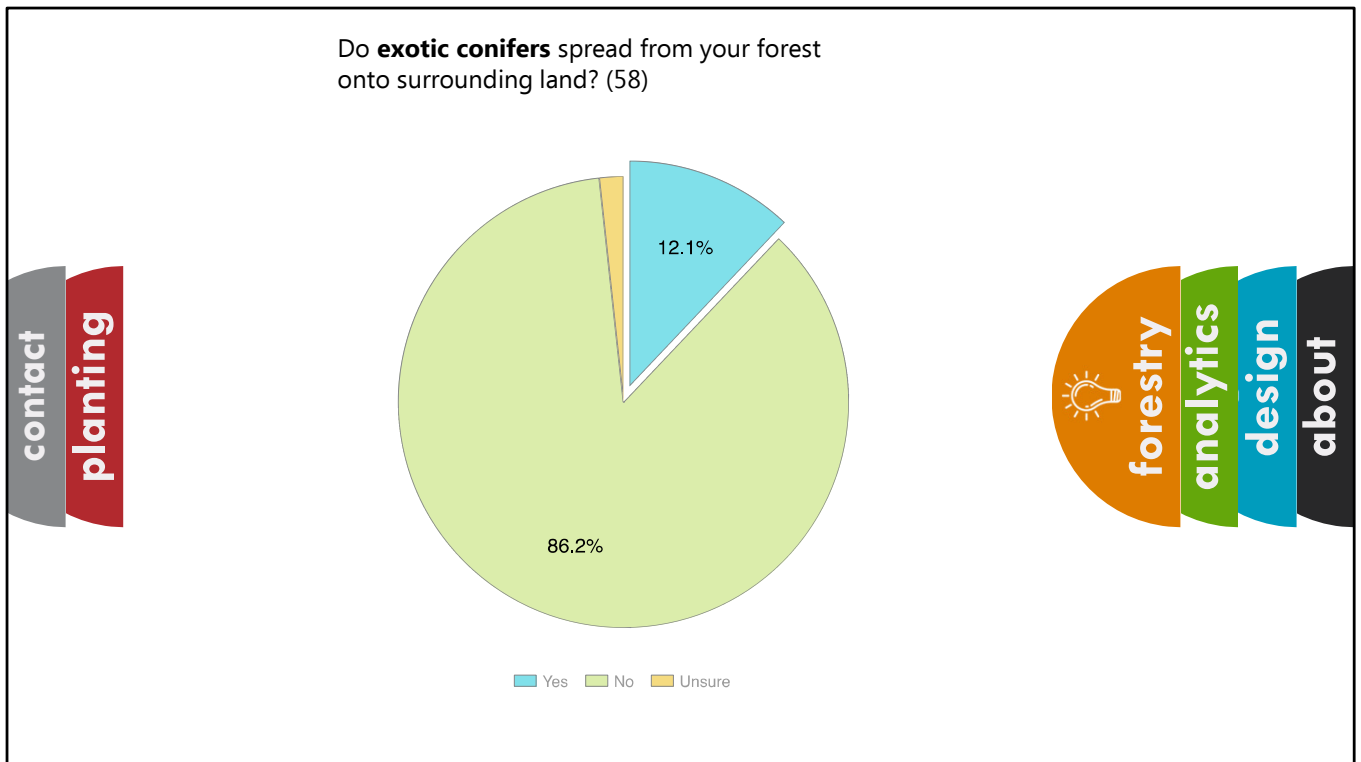
- This slide shows when respondents with commercial forestry will harvest, and it shows the results by region rather than industry. <click>
- And if you look at the results for West Coast, you'll see that almost half of them will harvest between 2019 and 2021, more than any other region.



- In addition, replanting is less certain on the West Coast than anywhere else, so we may be looking at land use change away from forestry, at least in some locations.

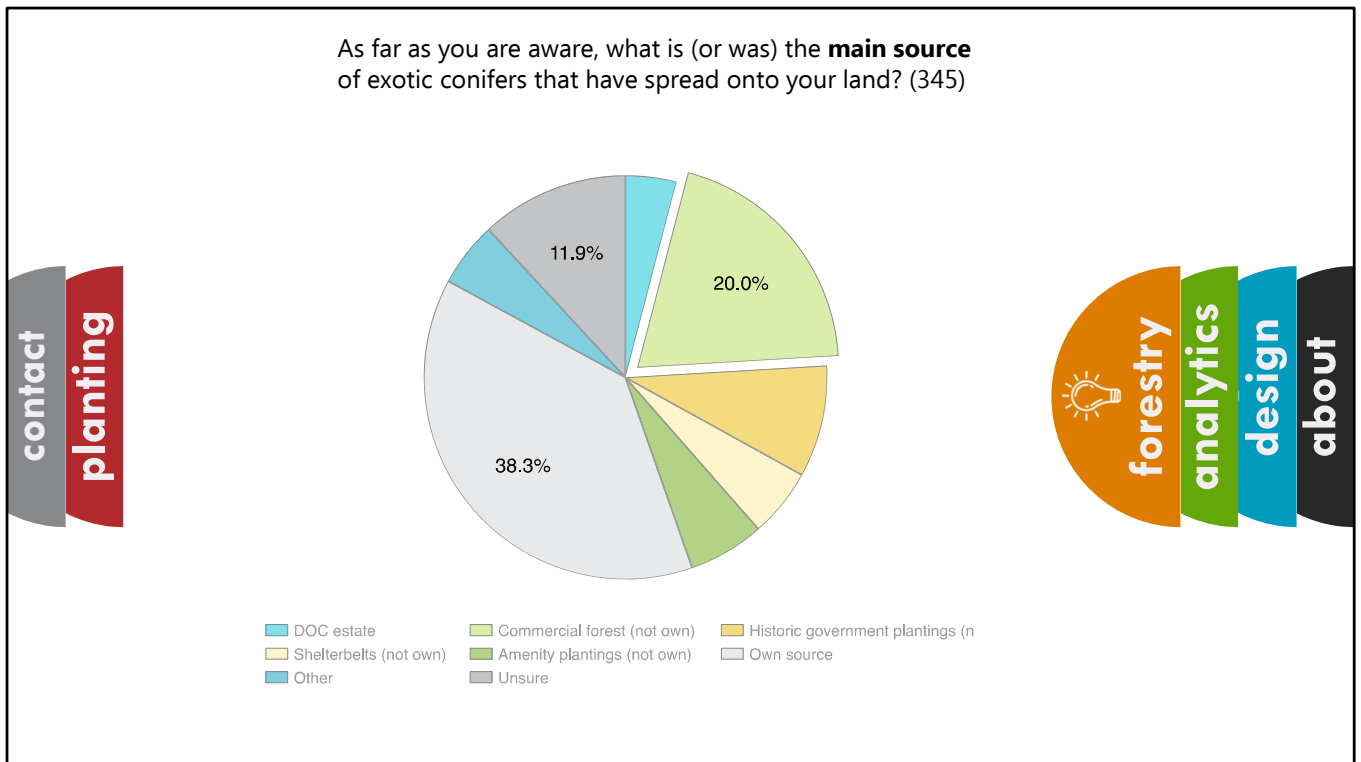


- In this slide, we look at intentions to add commercial forestry as a new enterprise or to add additional land to existing commercial forestry.
- Only 5.7% of respondents intend to add commercial forestry as a new land use in the coming decade. Among these, the majority plan to do so within the next 2 years. That's the left panel.
- Similarly, only 3.9% of people with existing commercial forestry intend to increase the size of their forest. Among those who do, the majority plan to increase the size in the next 2 years. That's the right panel.

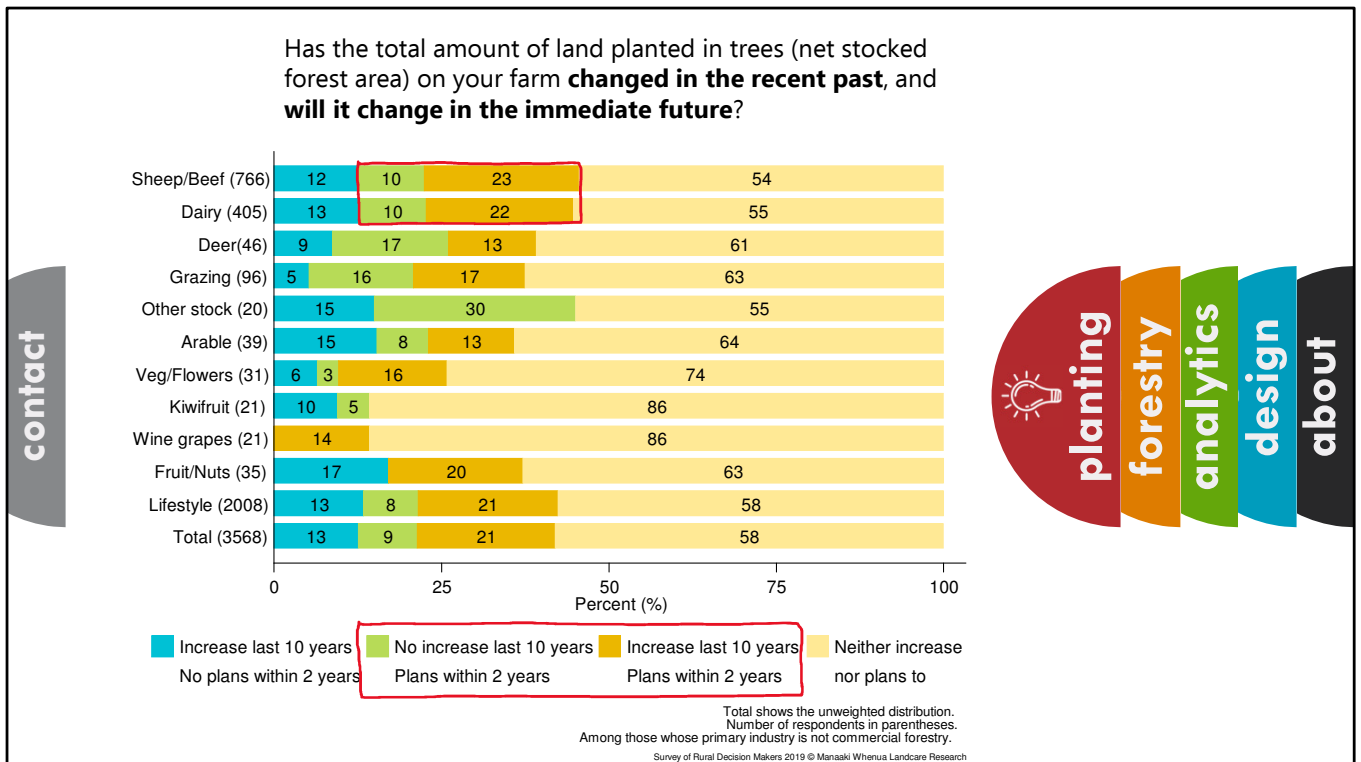


- This is sort of a fun one:
- Here we're asking whether exotic conifers spread from your forest onto surrounding land. 86.2% of respondents say "no".

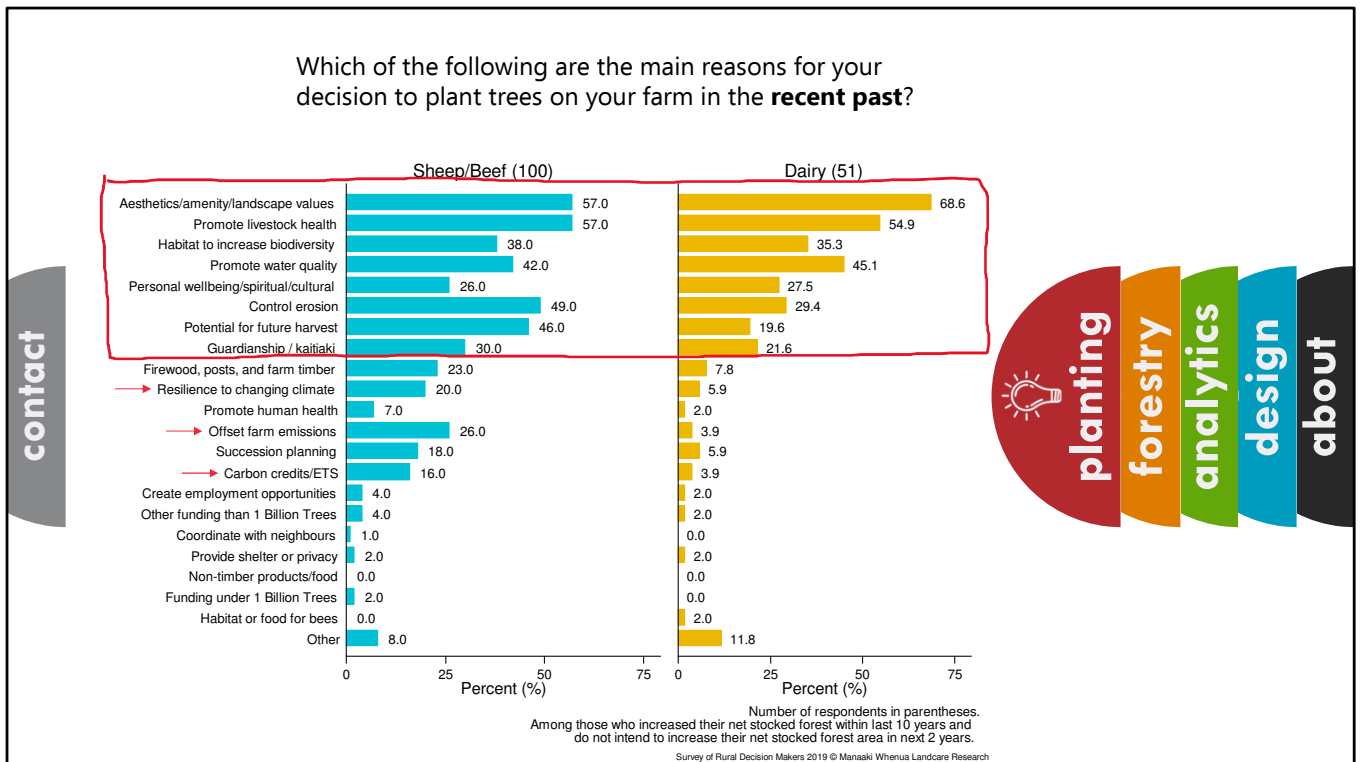




- And here, we're asking people who are NOT foresters but who have had exotic conifers spreading on their land what the source is.
- 20% of them say that the source is commercial forests on someone else's land.
- OK, so with that, I am going to switch topics to talk a bit about tree planting. The first result I'd like to share is whether people have increased tree planting over the last decade and whether they plan to increase tree planting in the next 2 years. And I'd like to present results by industry because there has been so much discussion about conversions of sheep and beef farms to forestry.

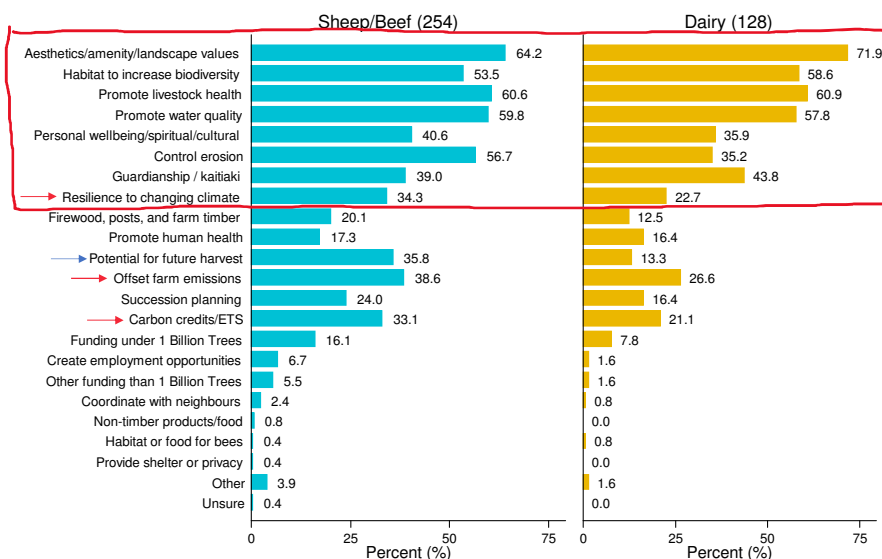


- As you can see from this figure, the green indicates the share of respondents in each industry who did not increase land allocated to forestry in the last 10 years but who plan to do so in the next 2 years.
- And the orange indicates the share who increased forestry in the last 10 years and who plan to do so in the next 2 years. <click>
- And there is virtually no difference between sheep and beef farmers and dairy farmers. Or deer farmers for that matter.
- This doesn't mean that there won't be big conversions. But this result doesn't seem entirely consistent with some of the media reports from the last few years.



- We asked people why they decided to plant trees in the past 10 years, and here are the results for sheep and beef and dairy farmers. <click>
- You can see that the main reasons were aesthetics, livestock health, habitat for biodiversity, water quality, cultural values, erosion control, future harvest, and kaitiaki. <click>
- Climate change mitigation is farther down the list

Which of the following are the main reasons for your decision to plant trees on your farm in the **next two years**?



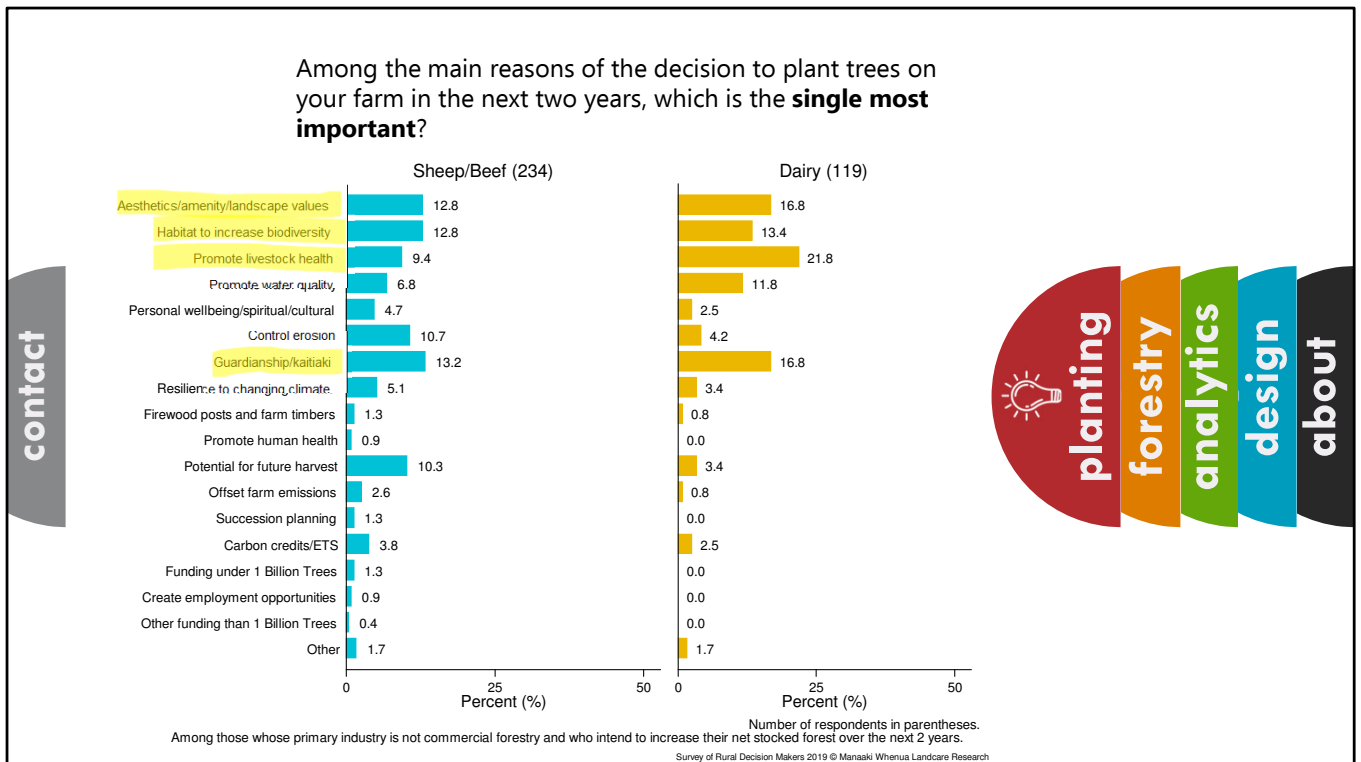
Number of respondents in parentheses. Among those whose primary industry is not commercial forestry and who intend to increase their net stocked forest over the next 2 years.

Survey of Rural Decision Makers 2019 © Manaaki Whenua Landcare Research

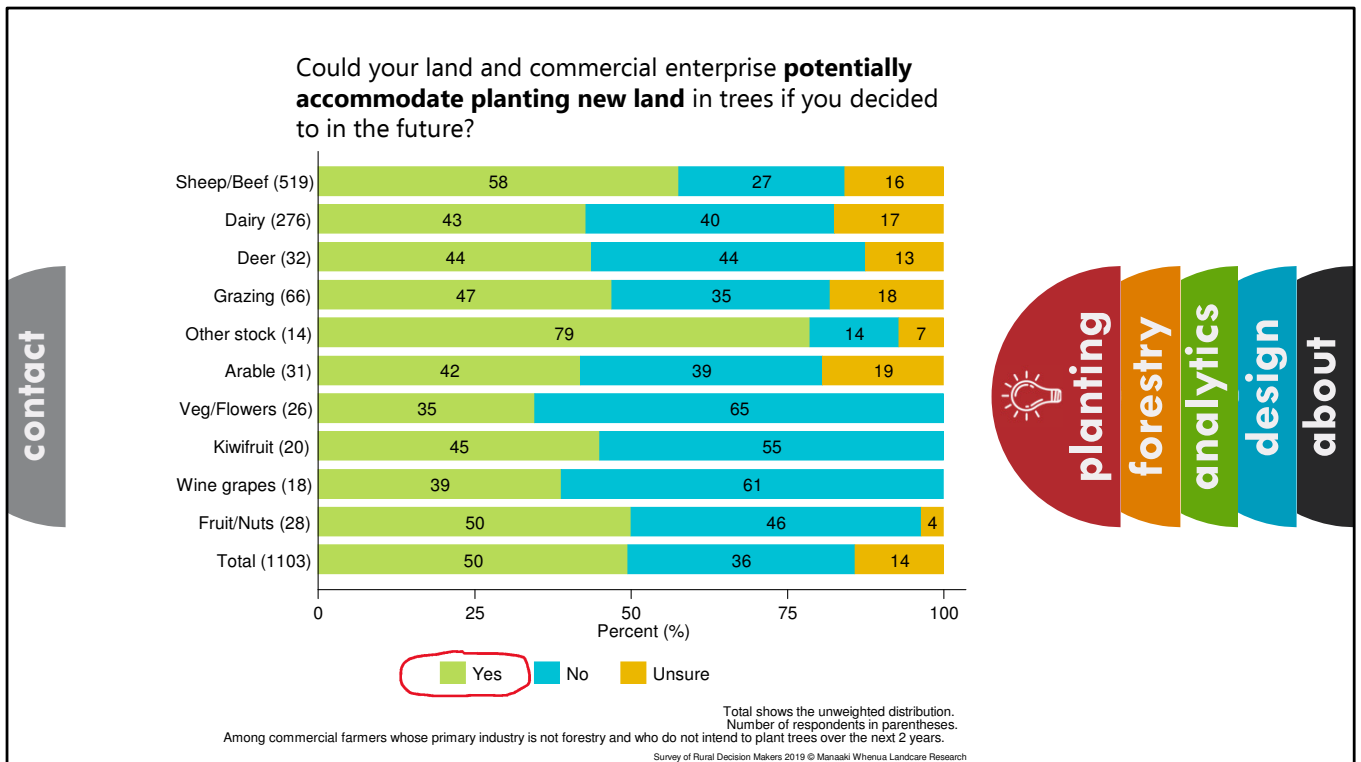


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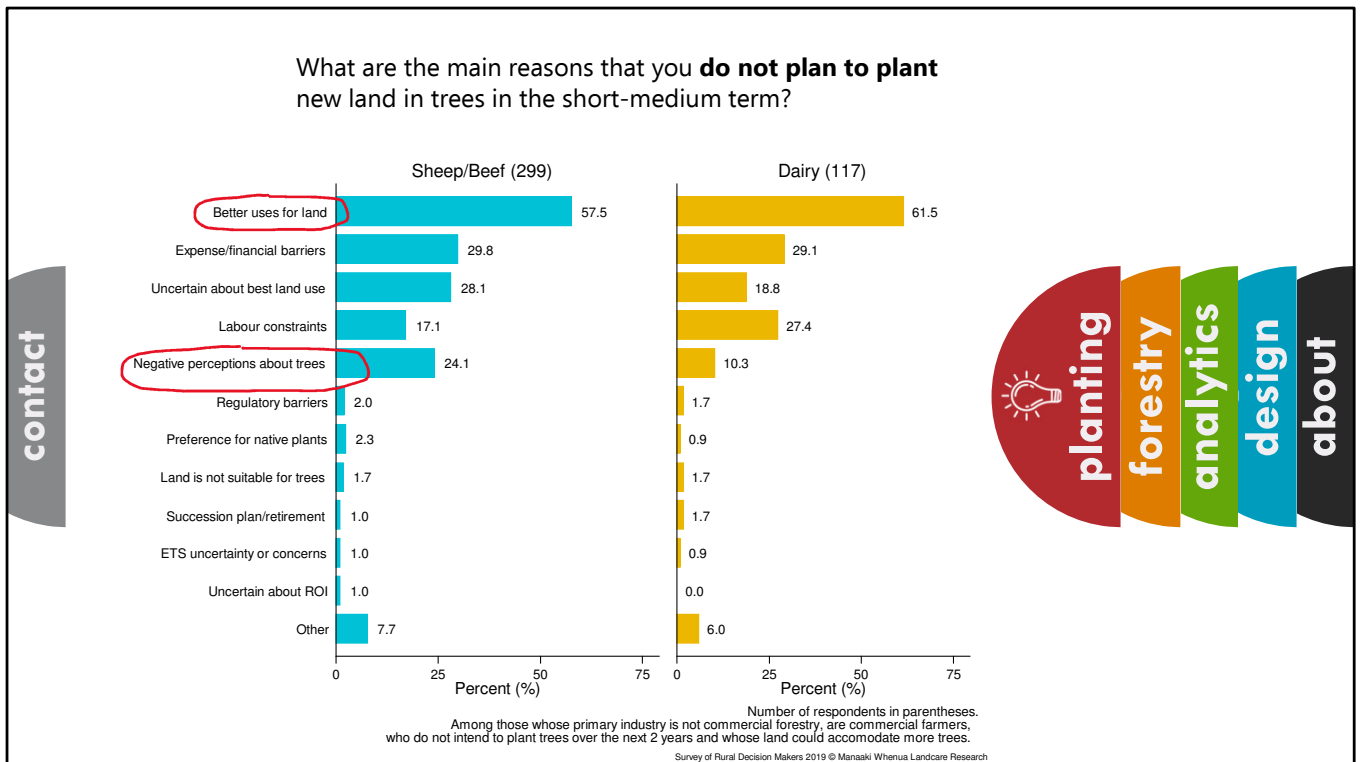
- When asked why they intend to increase tree planting over the next 2 years, the same main categories emerge... <click>
- ...although cultural values have risen in importance
- Climate change resilience is also up.
- Offsetting farm emissions has also become more important, especially for dairy farmers.
- Potential for future harvest has fallen a bit, but it's still quite important, especially for sheep and beef farmers.
- In the next slide, we ask people to identify the single most important driver of their decision to plant trees in the next 2 years.



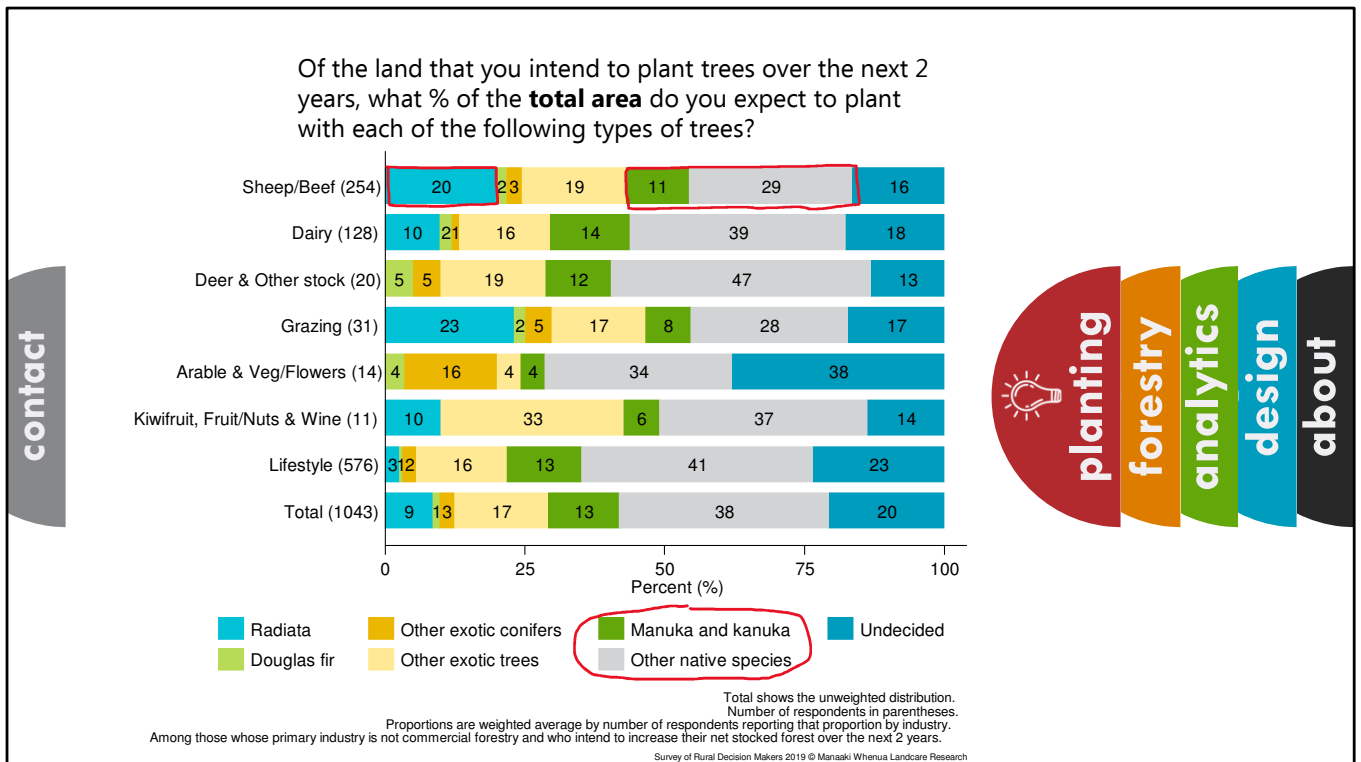
- And the main reasons are aesthetics, biodiversity, livestock health, and kaitiaki.
- Future harvest and climate change are much further down the list.



- We also asked people who don't plan to plant trees in the near future whether they had land that could accommodate planting, and about half of them said 'yes'

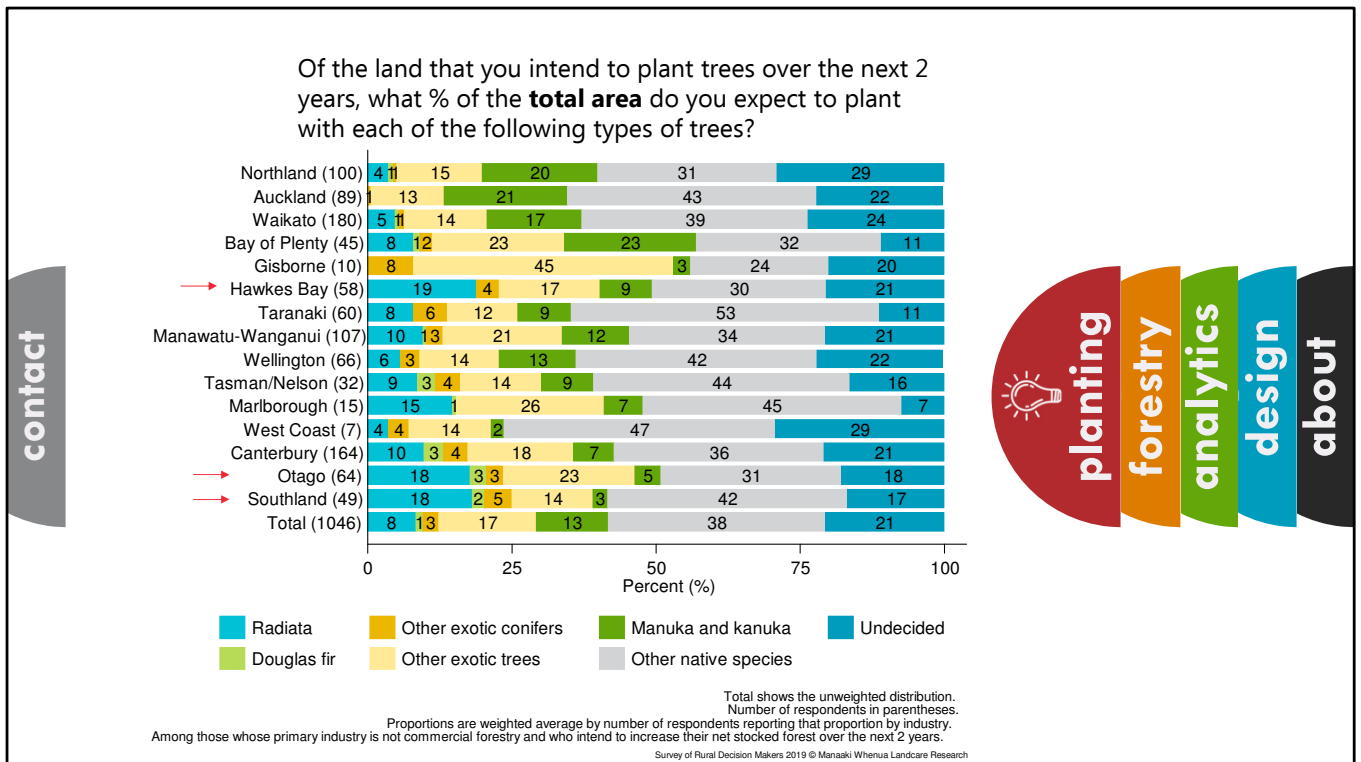


- Asked why they don't plan to plant, the most common reason given was <click>
- 'better use for land'. And fair enough – it's good that people are thinking about opportunity costs. <click>
- MI also want to point out that sheep and beef farmers are much more likely to report that negative perceptions about trees are preventing them from planting, a result that is very consistent with some of the media reports I've seen which seem to put quite a bit of pressure on drystock farmers.



- For people who do intend to plant trees, we asked that they plan to plant. And <click>
- natives are the most popular choice by a wide margin.
- In fact, on sheep and beef farms, <click>
- the area that is intended to be planted in natives is twice that intended to be planted in radiata.





- But people still plan to plant radiata, so where's it going to go? <click>
- Disproportionately Hawke's Bay, Otago, and Southland (mixed in with quite a few natives)
- I'm going to end my presentation here, except to say...

Rural Decision Makers  
**SUR✓VEY2021**

**Pike Stahlmann-Brown**  
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- I am frequently asked for the report. There is no one report. This year's survey has 336 variables in it. I just showed you 15 of them. You can find dozens more on our website.
- The 2021 Survey of Rural Decision Makers will launch in the second half of May. I hope you'll keep an eye on your inbox so we can hear your perspective on the future travel of rural industry. <click>
- Ngā mihi nui. I am very happy to take questions, either now, over the break, or by email.