

Prioritisation of sustainability issues for kiwifruit: industry survey results

The NZ Sustainability Dashboard (NZSD) Project is helping NZ primary sectors to undertake effective sustainability assessment and reporting. As part of this, it undertook a piece of work that prioritised sustainability issues for the kiwifruit industry to consider. The findings of this are in a separate larger report¹. This was partly informed by a small survey of industry stakeholders which is the subject of this short report.

Method

Kiwifruit stakeholders involved in the NZSD project were invited to participate in an online survey to rank the relative importance of various sustainability issues. Each participant was asked to firstly rank each issue from least to most likely to pose a significant threat to the NZ Kiwifruit Industry in the next 10 years. They were then asked to rank the same issues in terms of the size of the impact (or consequence) they would have on the NZ Kiwifruit Industry should they occur. Issues identified as important to other sectors were included as well as some additional issues identified as relevant to the kiwifruit industry. SurveyMonkey was used and deployed in March 2016.

Findings

The survey was completed by a total of 16 kiwifruit stakeholders i.e. 7 Zespri staff, 7 growers and 2 postharvest. Although the sample size was small, the responses come from key people in the industry who have a

- Kiwifruit stakeholders ranked the relative importance of various sustainability issues according to likelihood and impact should they occur.
- Generally likelihood and consequence correlated in a linear way.
- Growers as well as Zespri staff generally ranked issues similarly.
- Some issues were ranked as less important (like climate change and biodiversity loss) which are highly relevant globally and should therefore be considered nonetheless.

focus on sustainability especially the Zespri people.

For each issue, the likelihood and consequence scores of each participant were averaged with the results presented in Figure 1. The scores were also multiplied together to obtain a measure of overall risk with the results shown in Figure 2.

Overall, three groups of relative priorities were identified as follows:

- **Highest risk:** biosecurity lapse; food safety failure; diminished export returns; poor use of agrichemicals; lack of skilled labour; and water restrictions.
- **Middle risk:** illegal environmental and social practices; poor business management; water pollution; soil degradation; adverse climate change; and biodiversity loss.
- **Lowest risk:** unacceptable working conditions; overworked, stressed and unhappy workforce; failure to minimise energy use (and/or use

¹ Bengt, J. Prioritisation of sustainability risks and opportunities for the NZ kiwifruit sector. (2016). The NZ Sustainability Dashboard Internal Report IN16/02. Published by ARGOS.

alternative energy); and inadequate waste management.

Some of the topics in the middle to low risk categories such as climate change and biodiversity loss are of high importance globally (according to the larger prioritisation study that was completed). It is therefore recommended that these not be ignored and that industry prepares to respond positively to external queries around these. The industry may already be in a favourable position for these topics which may partly explain why were not scored higher in importance. For example, NZ's Kiwifruit Industry contributes very little to global greenhouse gas emissions.

Of note, there was generally a linear relationship between likelihood and consequence (impact) on average with nothing having a low likelihood and high consequence, or vice versa. It's possible that the respondents conflated likelihood and impact quite naturally i.e. issues which were thought to be highly likely were thought to have a big impact and vice versa. Also by definition, rare (i.e. unlikely)

A lapse in biosecurity, like the recent Psa incursion, is regarded by stakeholders in the NZ kiwifruit industry as the most likely sustainability-related issue to have a significant impact in the next 10 years.



events are not experienced very often so it's hard to be sure about their impacts so their consequence is rated low. Alternatively, there may be a systems driver with those issues which are likely to happen having an inherently big impact should they occur.

There was strong alignment between the responses of the growers and Zespri staff (Figure 2) indicating a common understanding of the issues, a reflection of the integrated nature of the industry and strong communication between the different types of stakeholders. A key difference was with 'Diminished export returns'. On average, this was identified as one of the highest risks by growers but of middling risk by Zespri. That

Climate change and biodiversity loss (e.g. due to deforestation) are perhaps the two most important sustainability issues at a global scale but other issues are considered more important for the sustainability of the NZ kiwifruit industry by its stakeholders.



said, the Zespri results were quite variable i.e. two of the seven Zespri respondents in particular said that this issue was the least likely to pose a significant threat to industry and that it would have the smallest impact should it occur. In contrast, the other Zespri respondents tended to rate 'Diminished export returns' as middle to high likelihood and impact.

Summary

In summary, this report provides an indication of the sustainability issues that are important to the NZ kiwifruit sector. However, globally important issues that were ranked as less important should also be considered.

The NZSD is thankful to all the Zespri and postharvest staff and to the growers who took the time to complete the online survey.

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Further Information

New Zealand Sustainability Dashboard Website:
<http://www.nzdashboard.org.nz/>