

COST ALLOCATION ANALYSIS to support the National (Kiwifruit) Pathway Management Plan Proposal

Cost allocation analysis to support Pathway Plan consultation, 2 September 2020

Executive summary

The proposed cost allocation model is that the Pathway Plan be primarily funded by a Grower levy.

This reflects that Growers are the most likely to benefit from the plan and have the greatest control over activities contributing to the problem that the plan seeks to resolve. As such, they are the appropriate group of people as direct beneficiaries and exacerbators to fund the majority of the costs by way of a levy.

The proposed Grower levy is an effective, practical, administratively efficient and secure approach to fund the plan. It is strongly aligned with existing levies and levy collection in the kiwifruit industry.

It is also proposed that other industry participants (such as contractors, suppliers of plants etc.) pick up their own direct costs (e.g., costs associated with new hygiene and testing regimes). It is proposed that this is suitable as these groups will be direct beneficiaries of the plan as well as exacerbators.

Purpose

This report describes an analysis of how costs should be allocated to fund the proposed National (Kiwifruit) Pathway Management Plan. It follows the requirements of the National Policy Direction for Pest Management (2015).

It should be read in conjunction with the following documents:

- *National (Kiwifruit) Pathway Management Plan proposal – Draft proposal for consultation* (hereafter referred to in this document as the ‘pathway plan proposal’)
- Harris, S. (2020). *Economic Analysis Kiwifruit Vine Health Pathway Management Plan. Report prepared for KVH, August 2020* (hereafter referred to in this document as the ‘economic analysis’)

(1) Grouping subjects for cost allocation analysis

The grouping of subjects for cost allocation analysis is set out in section 11 of the Pathway Plan proposal and section 2 of the economic analysis. It is acknowledged that in many cases the beneficiaries will also be exacerbators and vice versa (e.g. a contractor moving risk items between orchards is a potential exacerbator, but is also a potential beneficiary of the plan as the contractor’s business is may experience significant disruption in a biosecurity event that results from a pathway issue proposed to be resolved by the plan). The proposed groupings have similar existing legislative responsibilities and rights, including in relation to general biosecurity responsibilities under the Biosecurity Act 1993, are consistent with the structure of the kiwifruit industry as provided for under the Kiwifruit Export Regulations 1999, and/or are consistent with recognised sector groups or associated industries (e.g., ‘beekeepers’ and ‘plant producer’ sectors).

The grouping of beneficiaries is summarised as follows:

The main beneficiaries of the plan are all kiwifruit growers. The benefit to growers is protecting their investment and future orchard gate returns; this is through avoiding the establishment and spread

of biosecurity threats and through greater effective response as a result of effective pathway management (including early detection, reduced spread/distribution and more robust traceability systems).

Others who benefit from the plan include:

- Marketers and post-harvest operators and processors, whose business rely upon effective kiwifruit production – the extent of impact on these organisations is high, recognising kiwifruit typical accounts for a large proportion if not 100% of their business;
- Associated industries, who supply goods or services to the kiwifruit industry (e.g., ‘kiwifruit orchard contractors’ who supply services to orchards or post-harvest operators; ‘beekeepers’ who derive revenue from pollination services; ‘nurseries’ who supply kiwifruit plants to Growers; and ports and transport companies, who supply services to the kiwifruit industry) – the extent of impact on these persons or organisations is likely to be variable, depending on proportion of the business that is part of or relies upon the kiwifruit industry (e.g., some spray contractors exclusively provides services to the kiwifruit industry, while for beekeepers or ports the kiwifruit industry is likely to account for a modest proportion of their business.;
- Regional communities, from jobs created by the kiwifruit industry and revenue as it trickles through regional economies (multiplier effects) - the extent of benefit is variable depending on the proportion the kiwifruit industry contributes to the regional economy, and is very high for regions such as the Bay of Plenty, and modest for some regions with limited kiwifruit production, such as the Manawatū-Whanganui Region;
- Regional authorities that identify ‘wild kiwifruit’ in their Regional Pest Management Plans and actively manage these in order to control and prevent further spread of wild kiwifruit, as a pest plant that threatens biodiversity values – the extent of this benefit is low to moderate, with opportunity for Councils and KVH to work in partnership where there is common interest to share / reduce control costs; and
- Government and the nation, which benefits from export returns of over \$2.3 billion and associated tax revenue and economic stimulus (multiplier effects), and through efficient use of land (recognising that kiwifruit production generates amongst the highest level of all alternate productive land uses) – the extent of this benefit is moderate, reflecting that kiwifruit contributes to c.1.13% of GDP.

The categories of persons who contribute to the creation, continuance and exacerbation of the problems proposed to be resolved by this plan are:

- Kiwifruit growers who either directly control or manage (through contractual service delivery arrangements) the movement of ‘risk items’ to, from or between places where kiwifruit are grown – kiwifruit growers are considered by KVH to be a low- to medium-risk group as they make decisions on moving the full range of risk items to, from, and in some cases between, their orchard(s), they come into direct contract with kiwifruit vines, and they typically have strong incentives to protect their investment. [Note: However, the ability of growers to control access and to ensure that contractors and others accessing their orchards implement effective biosecurity is highly variable (e.g., some have professional managers with a high level of oversight, while others have limited management oversight and rely heavily on unsupervised compliance - this risk associated with these other parties that access orchards is reflected below.]
- Kiwifruit orchard contractors (e.g., pruners, pickers, sprayers etc. – refer to full list of types of contractors in the glossary), which move ‘risk items’ to, from or between orchards - contractors are considered by KVH to be a high-risk group, as they typically move between orchards and in some cases between regions, and come into direct contact with vines;

- Kiwifruit processors and post-harvest operators, which move people, equipment (e.g., fruit bins), vehicles and fruit that may be contaminated with soil and plant material off-orchards, then process fruit and separate out waste plant material in doing so – kiwifruit processors and post-harvest are considered by KVH to be a high-risk group, as they typically move equipment, personnel/contractors, and plant material between orchards and in some cases between regions, and come into direct contact with vines;
- Nurseries, garden centres and other individuals or organisations who/which distribute young kiwifruit plants – nurseries are considered a high-risk group by KVH as kiwifruit plant material represents the highest risk pathway for spread of kiwifruit pathogens, and a high risk pathway for some plant pests affecting kiwifruit.
- Budwood suppliers, and any other individuals or organisations who/which collect and distribute budwood – budwood suppliers are considered a high-risk group by KVH as kiwifruit plant material represents the highest risk pathway for spread of kiwifruit pathogens, and a high risk pathway for some plant pests affecting kiwifruit.
- Pollen mill operators and pollen suppliers, who move vehicles, flowers and pollen between orchards and in some cases between growing regions – pollen processors and distributors are considered by KVH to be a medium-risk group, as inherent risk associated with pollen is lower relative to other types of plant material (e.g., only a subset of kiwifruit pests and pathogens are pollen-transmissible).
- Compost and other growing media suppliers, which move and spread compost and other growing media to and within kiwifruit orchards – compost and other growing media suppliers are considered a medium risk as the composting process itself eliminates some biosecurity threats.
- Transport operators, who move vehicles and fruit (including waste fruit) that may be contaminated with plant material – transport operators are considered by KVH to be a low-risk group, as in some cases they move vehicles and fruit to and from orchards, however, they are less likely to come into direct contact with vines;
- Beekeepers, who move vehicles and beekeeping equipment that could be contaminated with soil that harbours pathogens – beekeepers are considered by KVH to be a low-risk group as they are less likely to spread pests or pathogens that are not soil-borne and are unlikely to come into direct contact with vines;
- Other landowners or occupiers, who either feed reject fruit to their stock (that could either include contaminated plant material or provide a source of kiwifruit seeds / wild kiwifruit if not fed out appropriately) or have wild kiwifruit growing on their property – other landowners or occupiers are considered by KVH to be a medium-risk group as their action or inaction could create future populations of wild kiwifruit that harbour biosecurity threats and create a pathway risk.
- Researchers and industry consultants, who move on and off orchards in the process of carrying out research – this group is considered to be low risk by KVH as while they typically visit and may move equipment between orchards, they also typically have well developed systems and capability for managing biological risk.
- Other staff working for kiwifruit industry organisations, whom move on and off orchards during the course of their work – other staff are considered by KVH to be a low-risk, as they are typically observing rather than directly handling plants, and have well developed systems and capability for managing biological risk.

A more detailed analysis of how each group (exacerbators and/or beneficiaries) is impacted by the proposed plan is documented in Appendix 1 of the proposal.

2) Determining who should bear the costs

(a) identify and estimate the direct costs of the plan and identify the indirect costs of the plan

These are estimated in section 2 of the economic analysis accompanying the proposal.

(b) where possible, identify the beneficiaries of the plan;

The beneficiaries of the plan are identified above.

(c) where possible, identify the active and passive exacerbators;

The exacerbators of the plan are identified above (the exacerbators listed are active exacerbators).

(d) whether the best cost allocation method is to have beneficiaries or exacerbators or a mixture of both bearing the costs of the plan and determine the appropriate cost allocation by considering all of the following matters:

Growers are both the primary beneficiaries of the programme as well as primary exacerbators with either direct control or ability to manage (e.g., through contractual service delivery arrangements) the movement of 'risk items' onto, within and from orchards. To prevent the spread of pests and minimise their impacts on kiwifruit production, Growers need to take primary responsibility and, as such, the proposal is that the approved plan be primarily funded by a Grower levy, with Growers and industry participants picking up their direct costs.

(i) the legislative responsibilities and rights of beneficiaries and exacerbators;

There are no legislative responsibilities and rights of beneficiaries that materially differ across beneficiaries and exacerbators that have a bearing on the allocation of costs.

(ii) the management objectives of the plan and the stage of infestation;

This criterion is not relevant to the allocation of costs for this pathway plan proposal.

(iii) the most effective agents to undertake the control to meet the objectives of the plan;

The group of persons most likely to benefit from the implementation of the plan, and whom have the greatest control over activities or inaction most likely to contribute to the creation, continuance, or exacerbation of the problems proposed to be resolved by the plan, are kiwifruit Growers.

Growers have the ability to change their behaviour and are best placed to reduce pathway risks by deciding who and what can enter their orchard and under what conditions (including the hygiene requirements to be met). They do this through purchasing decisions and service agreements, and by monitoring and directing what happens on their orchard(s).

KVH further assists this/ Growers by implementing biosecurity risk management and certification schemes, such as post-harvest risk management plans and the Kiwifruit Plant Certification Scheme. This sort of assistance will be further strengthened under this Pathway Management Plan proposal, for example, through addition of legal requirements for all types of kiwifruit plant material and for orchard contractors (with associated certification to assist ease of compliance).

Growers also have the ability to reduce the costs of pathway management on their orchard(s), or where a risk originates on their orchard(s). In this context growers are able to determine the most cost-effective method of management suited to their situation, and to determine whether the benefits of a particular pathway management activity outweigh the costs and make a commercial decision on the best approach for their orchard.

(iv) if proposing that beneficiaries bear any of the costs of the plan, how much each group of beneficiaries will benefit from the plan and whether each group of beneficiaries will benefit more than the amount of costs that it is proposed that it bear;

The group of persons most likely to benefit from the implementation of the plan are kiwifruit Growers (as above). The economic analysis suggests that the plan achieves a positive net benefit (an estimated net present value of \$4,566 million over 30 years, and it is appropriate to proceed with the proposal.

(v) if proposing that exacerbators bear any of the costs of the plan, how much each group of exacerbators is contributing to the problem addressed by the plan;

It is proposed that industry participants, such as contractors, plant producers, budwood suppliers and pollen mills, pick up their direct costs (e.g., costs associated with hygiene and monitoring and testing (where applicable)). In many cases such industry participants will be both beneficiaries as well as exacerbators.

The amount each group of exacerbators is contributing to the problem is summarised under (1) above.

The level of direct costs incurred by exacerbators is estimated in section 2 of the economic analysis.

(vi) the degree of urgency to make the plan;

There is a moderate level of urgency to make the plan, with that level driven by the need to put a programme in place to ensure that gains from the Psa-V NPMP are not lost (i.e. prior to that plan expiring in May 2023). This level of urgency had limited impact on determining the appropriate approach to cost allocation.

(vii) efficiency and effectiveness of the cost allocation method and proposed cost allocation;

The proposed Grower levy is a well-established, broadly supported, efficient and effective method for funding biosecurity and other industry good activities. The proposed levy structure and mechanism for collection is strongly aligned with other levies raised by the kiwifruit industry (e.g., Psa-V NPMP Levy, NZKGI Commodity Levy), such that duplication is avoided, collection costs are minimised and the basis for calculating the amounts to be levies is well understood.

(viii) practicality of the cost allocation method and proposed cost allocation;

As above, the proposed Grower levy is based on an existing levy structure and collection mechanism with demonstrable practicality and efficiency.

(ix) administrative efficiency of the cost allocation method and proposed cost allocation;

As above, the proposed Grower levy is based on an existing levy structure and collection mechanism with demonstrable practicality and efficiency.

(x) security of funding of the cost allocation method and proposed cost allocation;

A grower levy provides for strong security of funding. The key risks to security of funding relate to any major “adverse events” that give rise to significant reduction in national production. The industry has an “adverse events” framework to manage such risks, and the kiwifruit industry (through KVH) is a signatory to the Government Industry Agreement for Biosecurity Readiness and Response (GIA) and through this partners with Government and other primary industries to manage its’ no.1 risk – biosecurity. The pathway plan also contributes to reducing this risk.

(xi) fairness of the cost allocation method and proposed cost allocation;

KVH considers the proposed cost allocation method fair and reasonable as Growers, who will fund the majority of costs of the plan are the group of persons most likely to benefit from the implementation of the plan, and whom have the greatest control over activities or inaction most likely to contribute to the creation, continuance, or exacerbation of the problems proposed to be resolved by the plan. And because industry participants, who will bear their direct costs only, are also likely to benefit from the plan and typically have direct control over their own activities likely to contribute to the creation, continuance, or exacerbation of the problems proposed to be resolved by the plan.

(xii) whether the proposed cost allocation is reasonable;

As above, the proposed Grower levy is based on an existing levy structure and collection mechanism that is well-established and broadly supported as a reasonable, effective and efficient approach to cost allocation and collection.

(xiii) the parties who will bear the indirect costs of the plan;

Indirect costs of the plan are likely to be minimal. Potential indirect costs include temporary restrictions on public access (e.g., through place or area controls) if a public space has kiwifruit (including wild kiwifruit) and this requires treatment or removal to reduce potential spread of pests on pathways. Or impacts on “kiwifruit tourism” operations if temporary restrictions on access to specific orchards are necessary to reduce pathway risks. These scenarios are both unlikely (low probability of occurrence) and mitigatable (e.g., through on-orchard biosecurity practices and procedures); such that they would impose minor, if any, indirect costs. Notably KVH already works closely with kiwifruit tourism operators to support biosecurity education and ensure robust protocols are in place to protect the relevant orchards and their investment.

(xiv) the need for any transitional cost allocation arrangements;

KVH intends that the Pathway Plan and associated levy (the proposed Biosecurity (National Pathway Management Plan – Kiwifruit) Levy) commence from 1 April 2022. KVH also intends the Biosecurity (National Psa-V Pest Management Plan) Order 2013 and associated levy will be maintained beyond this for a further year, and then either rescinded on 31 March 2023 or left for the Order in Council to terminate on 17 May 2023. This will result in an overlap period – when the two plans are in effect - of approximately 12 months.

This overlap and transition (including coordination arrangements) is elaborated in sections 15 and 19 of the proposal.

To enable this transition the proposal is to establish the proposed Biosecurity (National Pathway Management Plan – Kiwifruit) Levy at a reduced rate of 0.11 cents per kilogram (0.4c per tray) to cover the reduced costs of \$648k in the first year (the transition year).

The proposed maximum rate of the Biosecurity (National Pathway Management Plan – Kiwifruit) Levy is 0.194 per kilogram for all levy rates above (0.7c per tray).

KVH intends to seek a resolution to amend the proposed Biosecurity (National Pathway Management Plan – Kiwifruit) Levy rate for the 2022/23 year (via AGM resolution) to 0.17 cents per kilogram (0.6c per tray). A levy struck at \$0.006 per tray of kiwifruit would cover the costs to be funded by a levy (i.e. \$970k per annum), with a small surplus of \$21k.

(xv) the mechanisms available to impose the cost allocation; and

As above (refer sub-section vii), the proposed Biosecurity (National Pathway Management Plan – Kiwifruit) Levy is based on/leverages an established levy mechanism that enables efficient and transparent cost allocation. Alternate funding mechanism considered and not preferred are:

Alternatives to the proposed Biosecurity (National Pathway Management Plan – Kiwifruit) Levy, that have been considered and were not preferred for the following reasons, are:

- Through the existing Biosecurity (Readiness and Response - Kiwifruit) Levy - this option is preferred, but KVH understands this is only possible if the Biosecurity Act 1993 as amended (refer above);
- Through a new levy that covers both the Pathway Plan and the National Psa-V Pest Management Plan - this option was not preferred as KVH intends to rescind the National Psa-V Pest Management Plan; and
- Through an existing commodity levy, such as, the existing NZKGI commodity levy for kiwifruit – this option was not preferred as the purposes for levy collection differ substantively and unnecessary complexity would be added (e.g., dual governance requirement). As the existing Commodity Levies (Kiwifruit) Order 2017 would need to be revoked and remade, there was also no efficiency gain to be made through this approach.