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An Evaluation of Compulsory Levy Frameworks for the Provision of Industry-good Goods and Services: A New Zealand Case Study

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Summary

A market failure exists in the supply of industry-good goods and services with characteristics of non-rivalry and non-excludability. Compulsory levy frameworks are one form of intervention that governments use to address this market failure.

Key components of the New Zealand levy framework, the Commodity Levies Act 1990 (the CLA) are described. The CLA is then evaluated against the criteria of accountability, effectiveness, efficiency and fairness. Some key aspects of the Australian, United Kingdom (UK) and Canadian frameworks are also considered.

The CLA is found to be strong on accountability, and to place strong performance incentives on industry organisations. The CLA is found to be fair to small and large-scale producers, and its flexibility enables efficiencies in administration and management of industry organisations.

Key words: Commodity Levies Act 1990, primary sector

Introduction

This paper discusses the rationale for compulsory levies to fund industry-good activities in the primary sector, and proposes a set of criteria for evaluating compulsory levy frameworks. The evaluation criteria are then applied to New Zealand's compulsory levies framework; the Commodity Levies Act 1990 (the CLA), and to some key aspects of other frameworks.

This paper describes what the CLA is and how it works, but is not intended as a review of the policies underpinning the CLA, or an evaluation of the performance of individual levy organisations or their spending.

The Policy Problem

It is often difficult to limit the benefits of activities such as agricultural research and extension to those that pay for them, which leads to a free-rider problem.
This results in less of these activities being carried out than is socially optimal.

Paul Samuelson was among the first to develop the theory of public goods (Samuelson, 1954). Samuelson described the concept of non-rivalry; in that the use of a good by one person does not reduce the ability of someone else to use it.

Another characteristic important to the theory of public goods is the concept of non-excludability; which refers to the inability (or ability) of one person to prevent another from using it. Economists have used these characteristics to classify goods and services into four categories: private, public, common pool, and toll goods (Table 1) (Gray, Fulton, & Furtan, 2007).

Table 1: Private, public, common pool, and toll goods

	Excludable	**Non-excludable**
Rivalrous	Private Good: e.g. an output from a farm business; like kiwifruit	Common-pool Good: e.g. ocean fisheries
Non-rivalrous	Toll Good (or club good): e.g. hybrid seeds	Public Good: e.g. publically available knowledge

Adapted from (Gray, 2011)

Goods and services of research and extension have characteristics of non-rivalry and non-excludability (Australian Productivity Commission, 1995; Smith, 2001). Investment in such goods and services is likely to result in benefits (spillovers or positive externalities) to people who do not pay for them (free-riders). Therefore, firms behaving rationally in a free market are likely to provide fewer of these goods and services than is socially optimal.

Coase (Coase, 1960) suggests that the market can correct externalities, if property rights are clearly assigned and negotiation is feasible (i.e. where transaction costs are sufficiently low). Therefore, assigning property rights, for example through patents, or facilitating bargaining between parties could lead to economically efficient solutions to externality problems. Transaction costs are related to the number of producers in an industry (Australian Productivity Commission, 1995). Thus, in large industries with many producers, where transaction costs are prohibitively high, there is likely to be a stronger case for market failure.

A compulsory levy framework, under which a not-for-profit organisation collects producer levies and spends them on research and development, is one way to address the market failure. Such a framework has been supported in principle by economists including Romer (Romer & Griliches, 1993), and Alston (Alston, Norton, & Pardey, 1995). However, such levies involve risks and costs.

KEY RISKS AND COSTS OF COMPULSION

- Levy payers may not receive greater or equal benefit to their levy contribution (forced-rider problem).
- Cross-subsidising because of mismatch between costs and benefits. The risk of those levy payers with minority interests cross-subsidising other levy payers.
- In cases where the market would have otherwise undertaken the activity, higher value voluntary or commercial activity is likely to be crowded out.
- Levy payers may be unable to apply effective sanctions against the levy organisation for poor performance.
- The cost on organisations of compliance.

Variations on compulsory producer levy frameworks are used in a number of countries, including New Zealand, Australia, the United Kingdom (UK) and Canada.

WHAT GOODS AND SERVICES ARE INDUSTRY-GOOD?

This paper defines 'industry-good' as a good or service that is non-rival and non-excludable (including where the cost of exclusion is prohibitively high), and where the benefits accrue to members of a particular industry. Commercial and trading activities are not included, to avoid competition between private enterprise and industry organisations. This paper considers that goods and services that are supplied or likely to be supplied on a voluntary basis should be excluded. For a comprehensive review on this subject see Jacobsen et al. (Jacobsen, Scobie, & Duncan, 1995).

There are a number of ways to address what goods and services are eligible for levy funding. Enabling levy payers to decide on the use of the levies through a voting mechanism (within the limitations described above) would retain flexibility for organisations to align their activities to the demands of levy payers.

The Australian Productivity Commission's 2011 report on Rural Research and Development Corporations considered the case for separate research and development, and marketing levies. The Commission concluded that:

> 'these should be decisions for levy payers in each industry to make, rather than prescribed on a one-size-fits-all basis' pg 265 (Australian Productivity Commission, 2011).

Criteria for Evaluating Compulsory Levy Frameworks

This paper evaluates compulsory levy frameworks against the following four criteria:

1. *Accountability*: Does the framework provide adequate safeguards to protect the interests of levy payers? A compulsory levy is a coercive power to tax that is delegated by the government to a private entity, therefore the interests of levy payers need to be protected.

2. *Effectiveness:* Is the framework effective at delivering goods and services that are aligned with levy payers' priorities and that have characteristics of non-rivalry and non-excludability? Is it effective at determining the optimum level of supply of such goods and services?

3. *Efficiency:* Does the framework result in a net benefit to levy payers? Does it facilitate the establishment and maintenance of effective and efficient industry organisations?

4. *Fairness:* Is the framework fair to levy payers? Does it deliver minimal cross-subsidisation between different types and scale of producers?

Evaluation of the New Zealand Commodity Levies Act 1990

The CLA provides a mechanism for primary sector organisations in New Zealand to seek a compulsory levy to raise funds from its member producers to fund activities such as product research and development, quality assurance programmes, animal and plant health, product promotion, technology transfer and training. Levies are collected under secondary legislation (orders in council) made under the CLA.

There are currently 28 levy orders in place (see Appendix 1), under which around $105 million[1] per year is collected by industry organisations. The number of levy payers varies widely depending on the nature of the industry. There are more than 14,300 potential levy payers in the dairy industry, and as few as 23 in the nashi pear industry. There is no limit on a minimum industry size for levy orders. Further analysis would be required to determine whether there should be a minimum size.

In 1989 the Government introduced new structures to deal with the setting of priorities for research and development in New Zealand. A key element of that policy package was the funding of research and development partnerships between the public and private sectors. The Commodity Levies Bill was introduced to enable industry groups to participate in such partnerships (Sutton, 1990). The Government's science investment strategy was focussed on getting industry commitment and a good balance and positive interaction between public and private sector research funding (Marshall, 1993).

The CLA also replaced a number of sector-specific pieces of levy legislation, like the Orchard Levy Act 1953 and the Vegetables Levy Act 1957, to provide a more consistent levy framework across primary sector industries.

Later, as part of the statutory marketing board reforms of the late 1990s a number of industries with statutory marketing board powers such as the meat industry, also moved from their industry-specific levying powers to the generic levy framework of the CLA[2]. Others with the ability to spend retained earnings from their marketing activities, such as the dairy industry, also moved to the CLA.

There are three key components of the CLA:

1. *The potential levy payer referendum* – levy payers decide whether there is to be a levy. A successful levy payer referendum is required to seek a new levy order. Levy orders last a maximum of six years (sunset provision), and organisations must hold a referendum to seek a new (replacement) levy order.

2. *Annual consultation and reporting* – levy payers or their representatives decide on the levy rate and spending on an annual basis, within the mandate of the six-yearly referendum.

3. *Governance* – levy payers manage their own funds to meet their priority demands. Levies are collected by the industry organisations that are also accountable for the spending of the levy (including annual reporting requirements). The make-up of governance boards of industry organisations is determined by the levy payers so that the organisations adequately represent the views and interests of levy payers.

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[1] Combined annual revenue of these organisations is $143 million, of which 74 percent is from compulsory levies (KPMG, 2012). Of the roughly $105 million/yr collected by industry organizations, 45 percent is tagged to science and research through organisations' budgets.

[2] Only the pork and deer industries have retained their industry-specific levy legislation, and operate outside the CLA. There are also compulsory levy provisions under the Biosecurity Act 1993 to fund pest management strategies.

Under the CLA, activities that may be funded by the levy include:

- Product and production research and development;
- Market development;
- Protection or improvement of animal or plant health;
- Quality assurance programmes or plans;
- Product promotion;
- Education, information and training;
- Day-to-day administration of an organisation's activities; and
- Any other purpose approved by the Minister.

This paper considers there are some activities, such as research and development, for which there is likely to be a stronger case for market failure than for others like industry representation.

ACCOUNTABILITY

The six-yearly referendum is a key accountability measure under the CLA.

If the levy payers are not satisfied with the organisation's performance or its spending (past or proposed), the levy payers can vote against seeking a levy order (new or replacement). Under the CLA levy payers consider past and future spending on an annual basis through industry meetings. This informs the levy payers of past spending, and gives them control over future spending priorities.

Box 1: Since the coming into force of the CLA, two industries failed at the first referendum, and three failed in the support referendum to renew their levy mandate, from a total of approximately 104 levy referenda since the CLA came into force.

Under the CLA, a successful referendum requires majority support from those that vote, both by number of votes and on a weighted basis appropriate to the industry.
There are no requirements on the minimum number or proportion of potential levy payers participating in a referendum. However, the Minister must be satisfied, before agreeing to proceed with the making of a levy order, that there was adequate consultation and publicity of the levy proposal so that potential levy payers were well informed of the levy proposal and the voting. On average, over the last 10 years around 37 percent of potential levy payers from each industry have voted in levy referenda. Further analysis would be required to determine whether there should be a minimum participation rate. Appendix 1 shows voter participation in levy referenda, and support rates for successful levy proposals.

A compulsory levy is a coercive power to tax that is delegated to a private sector entity, so it is important that levy organisations adequately represent the views and interests of levy payers. Levying organisations are required to have a majority of their board members elected or appointed by levy payers.

The levy organisations' boards vary with regard to their composition. Some industries choose to have mixed governance boards to enable industry organisations to appoint specialist experts on their boards or members from other parts of that industry's value chain. In all cases, the relevant levy board or committee will have levy payer representatives as a majority.

In addition, some industries have decisions relating to levy rates and spending made by a committee whose members are solely levy payer representatives, or by levy payers at a general meeting of the industry organisation. In cases where the Government contributes funding to projects on a case-by-case basis it may be appropriate to have separate governance arrangements for such projects, such as through project steering committees.

EFFECTIVENESS

The six-yearly sunset provision provides strong incentives for industry organisations to match the goods and services they supply to the type of goods or services demanded by levy payers. The referendum is also an opportunity to review the maximum levy rate, scope of spending, and industry organisations' structures.

> Box 2: After a decade of collecting and managing one levy under the New Zealand Seafood Industry Council (SeaFIC) umbrella organisation, New Zealand seafood industry groups have now decided to seek levy orders for the different species groups so that they can have more targeted spending for their species. Species groups would still be able to purchase generic seafood industry-wide services from SeaFIC (to benefit from economies of scale and avoid duplication of services).
>
> In the fruit growing industry, Horticulture New Zealand collects levies on all fruits and vegetables to fund activities of interest to all fruit and vegetable growers. In addition, fruit-specific levy organisations fund activities specific to their fruit. Pipifruit New Zealand for example, funds activities that only impact on pipfruit growers through its own levy on pipfruit.

The six-year sunset strikes a balance between giving levy organisations certainty of funding, while providing strong incentives to perform. However, it is likely that the six-year sunset, in some cases, distorts investment decisions of organisations by incentivising their investment in projects that are likely to deliver benefits in the short term.

The CLA enables industry organisations to use their levy funds to seek joint funding from external sources and from the Government's contestable funding pools. Examples of these include the Ministry for Science and Innovation's science-led contestable fund, the Ministry for Primary Industries' Sustainable Farming Fund, and Primary Growth Partnership. Industry organisations can sometimes obtain more than one-to-one external funding contributions. Voluntary organisations can similarly access these funding pools. These organisations would need certainty that they would have funds available for their contribution over the life of the project.

Box 3: The New Zealand passionfruit industry is a very small industry, with less than 50 commercial growers. The industry is worth around $1 million in annual orchard-gate return and generates $25,000 in levy income annually. The New Zealand Passionfruit Growers' Association was able to use its levy income to part-fund a research and development project on passionfruit disease control at a total project cost of $447,700. This was a three year project, undertaken from 2006 to 2009 in conjunction with Plant and Food Research (Grant 06/094). The project studied a range of passionfruit diseases, their controls, and then prepared a field guide for growers. The total cash contribution of $260,000 for this project over the three years consisted of $200,000 Government contribution (Sustainable Farming Fund), levy contribution of $30,000 and $30,000 from the New Zealand Fruitgrowers Charitable Trust. There was also an in-kind contribution of $187,700, mainly from the industry.

The CLA is a demand-driven model with respect to levy spending. This means that industries hold the levy money, decide on the levy rates (within the maximum in the levy order), levy spending priorities and projects.

This enables levy payers to review and decide on their spending priorities, thus improving the effectiveness of the levy spend. The levy payers' ability to determine the levy rate means that goods and services can be provided at the level demanded by levy payers.

Box 4: The Foundation for Arable Research (FAR), the levy body for arable crops, has established local research groups and grower research committees in the key arable crop growing regions. FAR consults with these groups and committees (all represented by growers) and uses seminars and field days to identify its research priorities.

The CLA is a flexible framework. It enables a range of activities to be funded, with the exception of commercial and trading activities. Different industries focus on different activities and markets, as determined by levy payers.

Box 5: The focus of the Foundation for Arable Research's levy spending is crop research and technology transfer; the Egg Producers Federation's focus is generic promotion of egg consumption in the domestic market; promoting avocado consumption in Australia is one of Avocado Growers Association's major activities; and industry representation is the major activity of Kiwifruit Growers Incorporated. See Appendix 1 for other levy spending priorities.

EFFICIENCY

The flexibility of the CLA facilitates efficient management and administration structures. Under the CLA industry organisations can operate a wide range of different organisational structures. Different organisational structures present in New Zealand include: primary producers and processors sharing administrative functions; an umbrella organisation providing administrative and management functions to a range of primary commodity groups; and some very small industries having their own levy orders and own organisations. In some cases levies are paid on the same commodity to two different organisations for different functions. In all cases the organisations receiving the levy are accountable to the levy payers.

Box 6: Growers of winemaking grapes and winemakers have their own separate levy orders and their own industry-good governance boards. The two entities have jointly formed another entity to deliver all the industry-good outputs, while still remaining accountable for the levy. This enables the entire wine industry value chain to work together and remove any duplication, but still allowing the levy payers to decide on the priorities for their part of the industry.

Administration costs make up a large part of some small industry organisations' budgets. This suggests that some consolidation of industry organisations for levy activities would reduce the proportion spent on administration and drive efficiency.

This would need to be balanced against the effectiveness of the levy with regard to the industry organisations' ability to target levy spending.

Box 7: A number of vegetable groups operate as branches of Horticulture New Zealand (HortNZ). For these groups, HortNZ collects and administers the levy, but the branches control their portion of the levy after HortNZ has deducted spending on levy administration and spending on sector-wide activities.

Nashi New Zealand collects around $15,000 in levies per year from around 20 growers, and spends around $6,000 in administration.

The flexibility of the CLA enables industries to seek the most efficient and effective means of levy collection. This can be significantly different for different industries. For example: dairy farmers' levy on milksolids is collected by milk processing companies; sheep and beef farmers' levy on livestock is collected by the slaughter premises; it is common in the seafood industries for levies to be paid directly by the owners of commercial fish stock quota; and most fruit and vegetable industries collect levies at the first point of sale. The levies are received directly by the industry organisations, with no government involvement, except for levies on meat that are collected by the Ministry for Primary Industries on behalf of the industry.

The six-yearly referendum requirement imposes costs on the industry to publicise and hold a referendum, and costs on the Government to process levy applications and make levy orders. One way to reduce these costs would be to make levy orders for longer duration than the current six years. This would need to be balanced against the level of accountability of levy organisations to levy payers.

Some industry organisations carry out industry representation and environmental advocacy activities. These activities may be mandated by levy payers, but not consistent with the market failure identified. Federated Farmers of New Zealand carries out industry representation on behalf of many primary sector producers on a voluntary funding basis. This demonstrates that voluntary funding is an alternative for funding such activities.

FAIRNESS

The CLA is designed to be fair to both small and large-scale producers through its referendum requirements for majority support from those that vote, both by number of votes and on a weighted basis.

The CLA provides that support for a levy proposal could be measured on the basis of value or volume of the commodity produced, or area of land or quantity or capacity of things used in connection with the production of the commodity. In the case of seafood, it could be measured on the basis of quota shares owned. The CLA requires consultation and publicity so that voters are well informed and have the opportunity to participate in levy referenda.

Most primary sector industries are characterised by a large number of small-scale producers and a small number of large-scale producers. The requirement that support be determined by the number of voters mitigates the problem of a small number of larger players overriding the wishes of a large number of small players. Majority support is also required as determined by some weighted measure appropriate to the industry, such as value or volume of production.

This mitigates the problem of a large number of small players, who collectively may account for a small proportion of production, overriding the wishes of the small number of larger producers.

The CLA also provides some protection of the interests of conscientious objectors and those not wanting to be members of the levying organisation. Under the CLA, levying organisations must allow non-member levy payers[3] to speak on levy matters at industry meetings. Levying organisations are encouraged to provide for special interest groups, like organic producers and free-range egg producers, through subcommittees for such groups, representation on the governance board, or through annual levy payer consultation.

Different producers have different priorities and the CLA enables organisations to cater to the interests of different levy payer groups. The benefits of levy funded projects should flow to levy payers in proportion to their levy contribution to minimise cross-subsidisation. However, in practice it is likely some producers benefit more than others. Alston (Alston, 2002) describes the potential for inter-temporal inequities which can arise between generations of producers. These can arise because the incidence of the levy is immediate, and the incidence of the benefits of research may extend for 20 years or more. Under the CLA an organisation has the flexibility to organise its spending, in consultation with levy payers, so that some projects deliver results in the short term and others deliver over the longer term.

International Comparisons

AUSTRALIA'S COMPULSORY LEVY FRAMEWORK

In Australia, there are levy frameworks at the federal and state level. At the federal level the federal Department of Agriculture Fisheries and Forestry (DAFF) collects producer levies from a range of primary industries under the Primary Industries (Excise) Act 1999. The Primary Industries (Excise) Regulations 1999 set out the levy rates and other details. Levy money can be spent on research and development, marketing and promotion, residue testing and plant and animal health programmes (DAFF, 2009). DAFF distributes the levies to relevant organisations, including to research and development corporations (RDCs). Research and development contributions are matched by the Government up to a maximum of one-to-one.

[3] Levy payers must be given the opportunity to join the industry organisation that collects the levy. Some elect to remain non-member levy payers.

To establish a compulsory levy an industry organisation can make a request to the Government following industry consultation, voting at an annual general meeting, or after a levy-payer referendum. There is no requirement for a levy payer referendum. Most levy orders provide for a regular review, but do not contain sunset provisions. Without the referendum and sunset provisions, accountability to levy payers in the Australian levy framework is likely to be lower than under the CLA. However, this provides the benefit of having greater opportunity to fund longer term research.

The Government is directly involved in the governance of the RDCs; their directors are appointed by the Minister on the recommendation of the industries concerned. Some Boards include government officials (J. Bell, Personal Communication, April 30, 2012).

With regard to research and development, the Australian levy framework is a less demand-driven model than the CLA. RDCs determine levy spending after industry consultation; levy payers have less influence over spending priorities and level of funding for projects compared with the New Zealand framework. Most of the industry bodies use other means, mostly voluntary, to fund industry representation (J. Bell, Personal Communication, April 30, 2012).

UNITED KINGDOM'S COMPULSORY LEVY FRAMEWORK

An independent review of the five United Kingdom statutory agriculture and horticulture levy bodies was carried out in 2005. The review assessed the accountability, efficiency and effectiveness of the levy Board arrangements and activities (Radcliffe, 2005). In 2008, as recommended by the review, all the levy boards and their levy functions were consolidated into the Agriculture and Horticulture Development Board (the Board) that was established by the Agriculture and Horticulture Development Board Order 2008 (the Order), made under the Natural Environment and Rural Communities Act 2006.

The Board's purpose is to fund a range of industry-good activities for each of the commodities listed in the Order, including research and development, product promotion, quality standards, training, and information collection and provision. The Board can establish a subsidiary company for each of the industries with levies under the Order. The Board can delegate the collection of levy to a subsidiary company. The levy raised in relation to an industry can only be used in relation to that industry. The commodities currently covered by the Order were all determined when the Order was made in 2008, largely continuing the levies prior to the 2008 consolidation.

Only levy payers are eligible to vote in a levy ballot. Levies can be imposed at various points in the value chain. For instance, the levy for cattle, sheep and pigs consists of producer levy as well as slaughter levy. Anyone who keeps or who slaughters these animals is eligible to vote.

The Board can at any time hold a ballot on whether or not a levy should continue, if it receives a request for a ballot signed by at least five percent of persons entitled to vote in a ballot. The maximum frequency with which ballots for the same levy can be held at the request of the persons entitled to vote is five years. The option of holding a referendum continues to provide strong performance incentives, and retains accountability to levy payers. Because referenda can be held no more frequently than once every five years, the costs to the industry and to the government are capped. There is some consolidation in levy administration to minimise costs while still providing the opportunity for individual industries to seek autonomy.

Each sector has a subsidiary board (subsidiary of the Agriculture and Horticulture Development Board) made up of levy payers and other stakeholders. This board determines spending priorities, recommends how to address them, and sets the levy rate annually. In the horticulture sector for example, there are advisory panels for crop sub-groups. These panels provide advice on the activities that should be funded.

CANADA'S COMPULSORY LEVY FRAMEWORK

In Canada, there are legislative provisions to strike mandatory or refundable (opt-out) levies at both the federal and provincial level (Greer & Zwart, 1999). For instance, the federal Agricultural Products Marketing Act 1985 enables provincial Governors in Council to make orders to impose compulsory levies on agricultural products. A wide range of agricultural products are currently levied.

Under the opt-out system levies are paid in the first instance on all production, but growers can seek a refund. For this reason levies tend to be maintained at low rates under the opt-out system. The Saskatchewan Pulse Growers' mandatory levy rate is 1.0 percent of the selling price; much higher than the Western Grain Development Fund's opt-out levy of 0.2 percent (Gray, 2011).

Conclusion

Compulsory levies are one way governments can address a market failure in the provision of industry-good goods and services. This paper describes the New Zealand compulsory levy framework and its strengths.

New Zealand's levy framework is a demand-driven model as the levy payers decide on the spending priorities and levy rates. It is a flexible framework to suit a range of different industry characteristics and structures. Small industries tend to spend a relatively high proportion of their levy income on administration. Six-yearly referendum requirements provide strong accountability, but also lead to costs on industry, and the Government. Under the CLA, a wide range of activities can be funded, including some that may not fall within the market failure definition.

Any changes to the levy framework would have to be considered within the overall national structures for science funding and delivery. The Australian Government contributes up to one-to-one matched funding for research and development, whereas New Zealand industries can seek more than one-to-one joint funding from external sources, including from the Government on a contestable basis.

In Australia, some industries have one entity focussed on research and development and another entity focussed on industry representation. It may not be cost efficient for most New Zealand industries to have such a separation, because of the size of some New Zealand industries.

FUTURE WORK

While a number of questions have been raised in this paper with respect to the CLA, the paper did not attempt to identify all its weaknesses and opportunities for improvement. Such a review would need to address questions like:

- Is a simple majority support (i.e. over 50 percent) from those voting in a referendum adequate?
- Is the current level of participation (average around 37 percent), with no requirement in the CLA for minimum level of participation, adequate?
- How effective is each levy organisation's spending?
- Is there sufficient information available to levy payers for them to judge the quality of levy spending and the performance of industry organisations at the time of the levy referendum and for ongoing monitoring through annual reports?
- What has been the quality of cost benefit analysis provided to the Minister when industries submit an application for a levy order after their levy referenda?
- Should there be a minimum size on industries able to seek levy orders to promote consolidation among smaller industries?

Appendix I: List of Levy Orders as at July 2012

Name of Levy Order	Commodities Levied	Approximate annual levy collected ($NZ)	Approximate number of levy payers	Percent support by number of voters (and weighted basis)	Participation rate (Percent)	The two highest value expenditure areas in order
Commodity Levies (Arable Crops) Order	All arable crops, including herbage seeds	$3,463,000	2,650	86 (86)	36	• Research • Technology transfer
Commodity Levies (Asparagus) Order	Asparagus	$63,000	80	57 (72)	43	• Operations • Residue testing programme
Commodity Levies (Avocados) Order	Avocados	$1,097,000	1,350	71 (81)	21	• Market promotion • Research
Commodity Levies (Blackcurrants) Order	Blackcurrants	$420,000	50	96 (100)	45	• Research and development • Market development
Commodity Levies (Cereal Silage) Order	Silage from cereal and pulses	$62,000	2,650	51 (51)	36	• Research • Technology transfer
Commodity Levies (Eggs) Order	Eggs	$1,040,000	140	100 (100)	36	• Promotion/Advertising • Office expenses
Commodity Levies (Feijoas) Order	Feijoas	$28,000	110	87 (62)	41	• Research and development • Administration
Commodity Levies (Fish) Order	All species of fish sold	$1,752,000				• Research • Technical services
Commodity Levies (Kiwifruit) Order	Kiwifruit	$991,000	2,600	87 (85)	43	• Advocacy • Communications and education
Commodity Levies (Maize) Order	Maize	$595,000	2,650	70 (68)	36	• Research • Technology transfer
Commodity Levies (Meat) Order	Meat (beef, dairy cattle, sheep)	$24,368,000	20,050	Sheep: 54 (62) Beef: 52 (59)	39	• Market access/Market development • Research and development/ Information transfer

Name of Levy Order	Commodities Levied	Approximate annual levy collected ($NZ)	Approximate number of levy payers	Percent support by number of voters (and weighted basis)	Participation rate (Percent)	The two highest value expenditure areas in order
Commodity Levies (Milksolids) Order	Milk	$54,500,000	14,330	69 (75)	52	• Disease control • Research and adoption
Commodity Levies (Mussel, Oyster, and Salmon) Order	Mussels, oysters, and salmon harvested for sale	$1,194,000				• Research • Technical services
Commodity Levies (Nashi Pears) Order	Nashi Asian Pears	$15,000	20	100 (100)	57	• Administration • Website upgrade
Commodity Levies (Navel Oranges) Order	Navel Oranges	$75,000	240	78 (79)	27	• Research and development • Administration and activity
Commodity Levies (Nelson-Marlborough Dredge Oysters) Order	Nelson–Marlborough dredge oysters for which there is quota	$0				
Commodity Levies (Non-proprietary & uncertified herbage seeds) Order	Non-proprietary and uncertified herbage seed	$175,000	380	73 (82)	28	• Maintaining non-proprietary herbage seed cultivars
Commodity Levies (Passionfruit) Order	Passionfruit	$25,000	100	81 (71)	60	• Disease control • Administration
Commodity Levies (Pipfruit) Order	Apples and pears	$3,452,000	640	82 (85)	46	• Research contracts • Governance and administration
Commodity Levies (Satsuma Mandarins) Order	Satsuma Mandarins	$40,000	370	83 (94)	23	• Research and development • Administration

Name of Levy Order	Commodities Levied	Approximate annual levy collected ($NZ)	Approximate number of levy payers	Percent support by number of voters (and weighted basis)	Participation rate (Percent)	The two highest value expenditure areas in order
Commodity Levies (Southern Scallops) Order	Southern scallops taken by commercial fishing	$141,000				• Research • Technical services
Commodity Levies (Summerfruit) Order	Apricots, cherries, nectarines, plums and peaches	$675,000	340	75 (76)	25	• Administration and Governance • Research and development
Commodity Levies (Tamarillos) Order	Tamarillos	$50,000	70	96 (100)	37	• Research • Management fees
Commodity Levies (Vegetables and Fruit) Order	All vegetables and fruits	$2,097,000	7,440	Between 88 and 74 (Between 96 and 56)	Between 17 and 31	• Advocacy
Commodity Levies (Wheat Grain) Order	Wheat grain	$1,105,000	1080	77 (83)	28	• Disaster relief insurance for growers
Commodity Levies (Winegrapes) Order	Winemaking grapes	$1,404,000	920	87 (89)	44	• Research • Administration and Governance
Wine (Grape Wine Levy) Order	Grape wine	$5,421,000		82 (97)		• Marketing • Industry promotion
Wine (Non-grape Wine Levy) Order	Fruit and vegetable wine (excluding grape wine)	$10,000	40	75 (98)	31	• Promotion • Secretarial and administration
Total		$ 104,384,000				

Note: Agricultural sector levies collected under other legislation include the New Zealand Pork Industry Board (around $3.3 million per annum) and the Deer Industry New Zealand (around $5.4 million per annum).

Note: Around $15 million of levies raised under the Milksolids Levy Order, and $1.6 million of levies collected by Deer Industry New Zealand is used to fund Animal Health Board's (AHB) Tb National Pest Management Strategy. None of the levies raised under the Meat Levy Order is used for AHB activities as this funding is raised under the Biosecurity Act 1993.

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