

BIOSECURITY 2025

STRATEGIC DIRECTION 1: A BIOSECURITY TEAM OF 4.7 MILLION PUBLIC SURVEY

Target: 75% of adult New Zealanders understand what biosecurity means and why it is important

Target: 80% of New Zealanders accept that those involved in managing, controlling, and eradicating pests and diseases use appropriate tools and activities, such as controlled spraying, use of poison baits and/or movement restrictions

Target: 80% of New Zealanders find it easy to understand what they need to do if they find a pest or disease

Target: 500,000 New Zealanders regularly take action to control plant or animal pests in their community

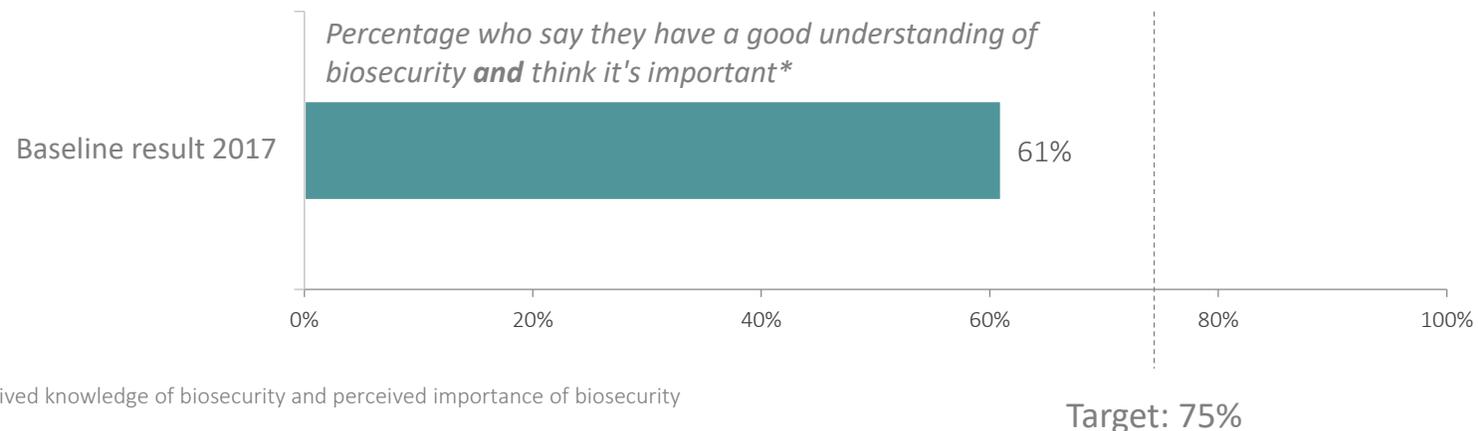
March 2018

This research was conducted in collaboration with the MPI Research and Evaluation Team



Target... 75% of adult New Zealanders to understand what biosecurity means and why it is important

61% of New Zealanders say they have a good understanding of biosecurity *and* think that it is important.



*Those who rate 7-10 out of 10 on scales measuring perceived knowledge of biosecurity and perceived importance of biosecurity

Source: Q1, Q2

Base: All respondents (n=1,150)

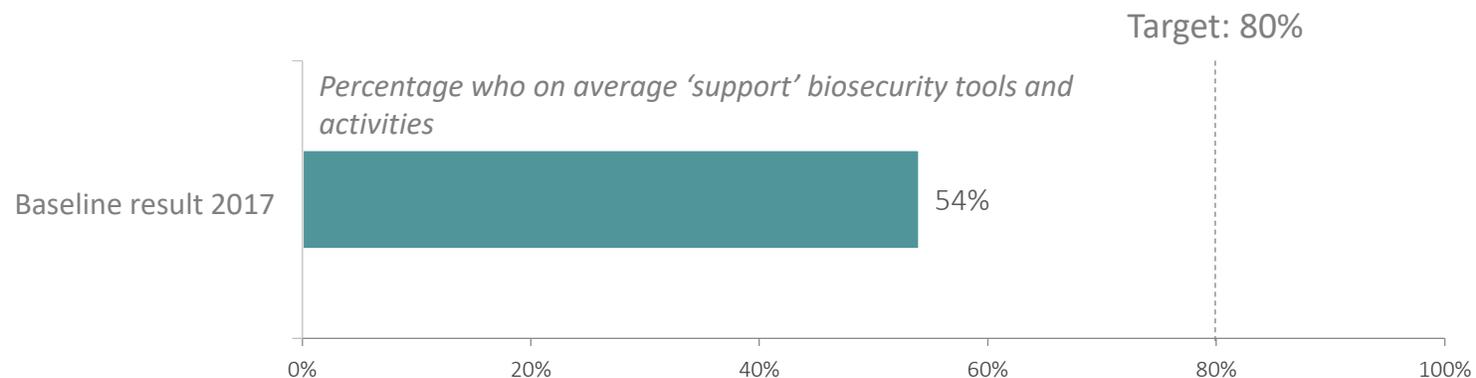
- Young people are less likely than average to understand biosecurity and think it's important. Only half (51%) of under 30 year-olds rate their understanding and importance highly, and this drops further to 39% among 18-24 year-olds.
- Awareness that biosecurity involves controlling and monitoring for pests at and before the border, as well as within New Zealand is high. But fewer people relate biosecurity to the Treaty of Waitangi and Māori concepts.
- People are most likely to mention environmental and economic impacts when asked how a biosecurity breach would affect New Zealand. Myrtle Rust is the most commonly mentioned biosecurity risk. This is likely to reflect the media coverage it has generated since it first arrived on mainland New Zealand in May 2017.
- Only 2% of New Zealanders mention personal consequences for their lives when asked about the likely impacts of a biosecurity breach.

Executive summary



Target... 80% of New Zealanders accept that those involved in managing, controlling, and eradicating pests and diseases use appropriate tools and activities, such as controlled spraying, use of poison baits and/or movement restrictions

On average, 54% of New Zealanders support the use of a range of biosecurity tools and activities designed to manage, control, and eradicate pests.



Note: Respondents were asked to rate a range of measures on a scale of 0 to 10, where 0 is strongly oppose and 10 is strongly support. The chart shows the % who gave an average score of 7 to 10 indicating they broadly accept these measures.

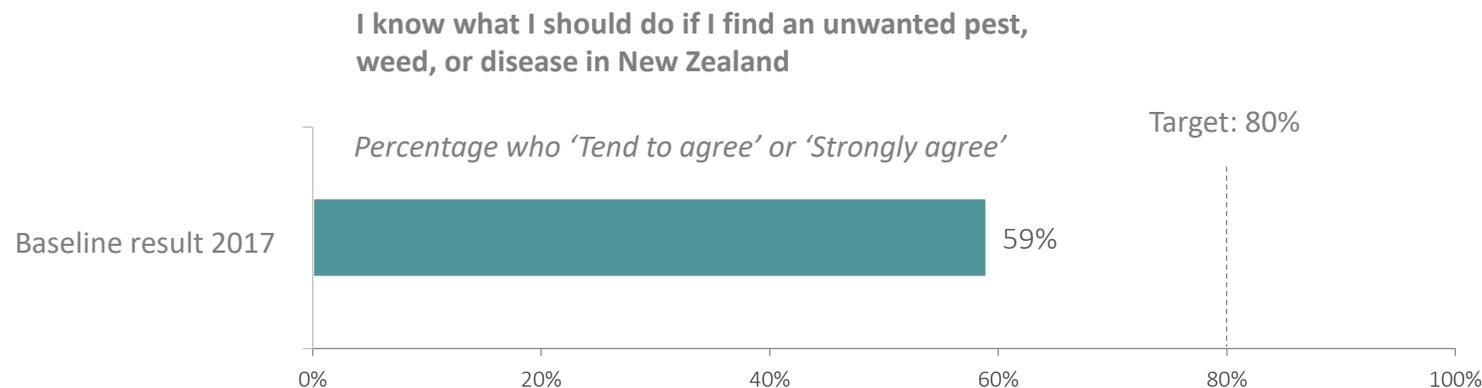
Source: Q23

Base: All respondents (n=1,150)

- 44% of New Zealanders do not generally support biosecurity tools and activities (36% are neutral, and 8% are opposed).
- Of the tools measured, New Zealanders are most likely to support traps and baits being laid on their own properties (67%).
- Opposition is strongest to movement restrictions (21% oppose, whilst 49% support).
- Those aged 60 and over (63%) are more likely than average (54%) to generally support the use of biosecurity tools and activities.

 **Target...** 80% of New Zealanders find it easy to understand what they need to do if they find a pest or disease

Currently, 59% of New Zealanders think they know what they should do if they find an unwanted pest, weed, or disease.



Source: Q11
Base: All respondents (n=1,150)

- A minority (18%) disagree that they know what they should do in this situation, whilst 21% neither agree nor disagree.
- Less than half (45%) of New Zealanders look for information to improve their understanding of pests, weeds, and diseases.
- Many people are not confident in their ability to identify threats to biosecurity – just 29% agree that they can spot the main pests, weeds, and diseases that pose a threat to New Zealand wildlife and the environment.

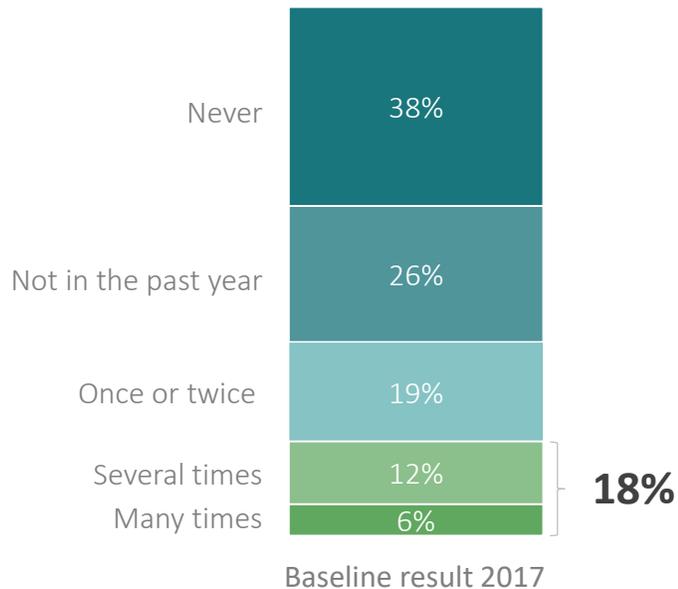
Executive summary



Target... 500,000 New Zealanders regularly take action to control plant or animal pests in their community

18% of New Zealanders have regularly taken action to control plant or animal pests somewhere beyond their own property in the past year

Thinking about the past year, how often, if ever, have you taken action to control unwanted pests or weeds somewhere beyond your own property?



**That's approximately
576,000 people**



**which means...
target exceeded**

- Most New Zealanders regularly undertake other biosecurity actions including staying vigilant about biosecurity requirements at the airport and keeping garden weeds under control.
- In contrast, less than half regularly keep an eye out for pests and weeds when they are out in nature, whilst 8% regularly donate money to groups who are involved in biosecurity.
- Most see national and local government, and non-government organisations as playing the largest role in biosecurity. A minority (38%) of New Zealanders think themselves and their families play a substantial role.
- The number one barrier preventing people from playing a larger role in biosecurity is a lack of knowledge about what can be done to make a difference. This is most pertinent for young people.

Source: Q5

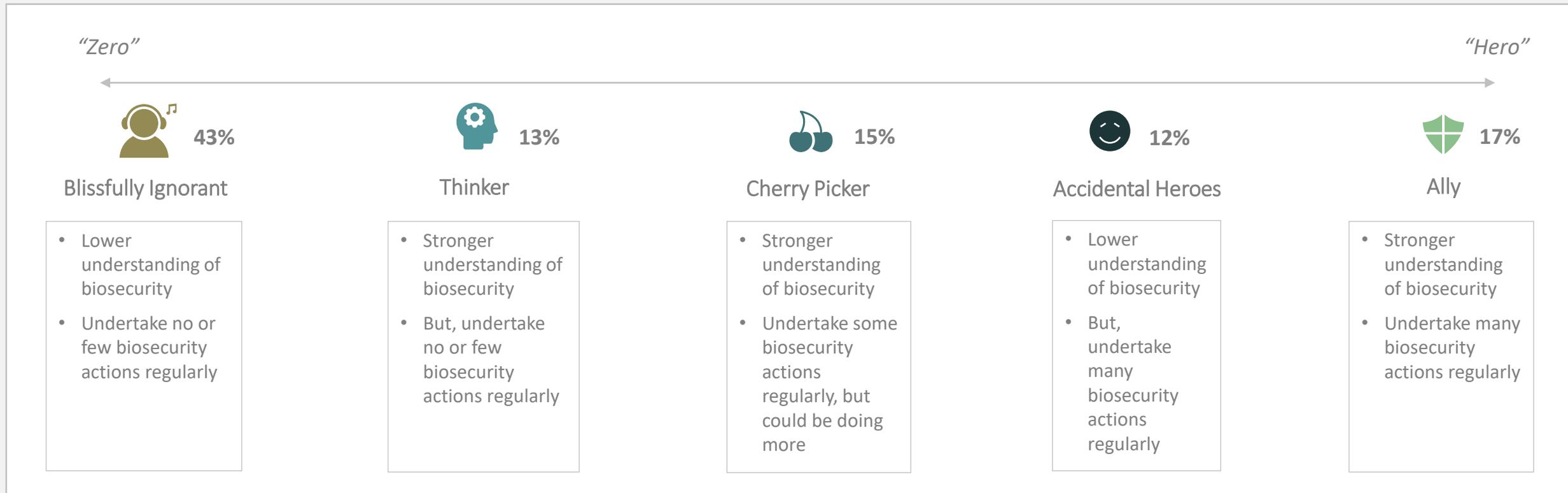
Base: All respondents (n=1,100)*

*n=50 pilot respondents did not answer this question

Executive summary: The segments

The survey allowed us to measure a number of segments based on:

- How well people understand biosecurity (self-assessed)
- How many biosecurity actions they undertake regularly



Note: The typologies were firstly identified in a qualitative research study. In the survey we measured the size of these segments using two core factors from the qualitative research (self-reported knowledge and frequency of action). In doing so we identified an additional segment, 'Accidental Heroes', not recognised in the qualitative research. The segments were created through cross-tabulation. The scope of the research did not include a 'full segmentation' based on statistical analyses of response clusters, which could result in alternative segment solutions.

Going from “zero” to “hero”: how to communicate with each segment

The following recommendations are adapted from prior qualitative research, whilst taking into account the current survey findings.

“Zero”

“Hero”



43%

Blissfully Ignorant

Create awareness and interest about biosecurity. Content needs to be at a basic level.

Key messages need to introduce Biosecurity 2025, emphasise that biosecurity is critical, and emphasise that biosecurity functions are not limited to border control.

Consider ‘grass roots’ (e.g. community / school-based) approaches to raise awareness and normalise behaviour.



13%

Thinker

These people are aware of the issues but need a reason to act.

Therefore, any communications need a clear call to action, and clarity around what is required.

Communications should also seek to highlight the benefits of undertaking the desired behaviour and facilitate the ease of acting (in doing so, removing perceived barriers).



15%

Cherry Picker

Increase the breadth of action they undertake, so they are less selective in their behaviour and move towards compliance. These people have a rational appreciation of what is required.

To encourage action, tap into the more emotive aspects and core values. Leverage social pressure or influential others to influence the desired behaviour.



12%

Accidental heroes

This group already undertake a number of the desired biosecurity behaviours, but may not appreciate the full range of wider benefits their actions have.

Communications should highlight how actions taken for traditional or cultural reasons (e.g. tikanga) can also have positive effects for the economy, environment, and wellbeing more broadly to reinforce behaviour.



17%

Ally

These people are compliant, they undertake many biosecurity actions regularly. They are motivated by the benefits their actions have on others as well as themselves.

Use positive reinforcement to maintain the desired behaviours. Specifically, messaging around the effectiveness and overall success of biosecurity initiatives is required.

Background and objectives

The “Biosecurity 2025: Direction Statement for New Zealand’s biosecurity system” sets out the strategic directions for strengthening New Zealand’s biosecurity system over the coming years.

Strategic Direction 1 (SD1) aims to develop a “biosecurity team of 4.7 million” and includes a number of specific targets calibrated towards achieving this goal.

Colmar Brunton were commissioned to develop and implement a survey tool that establishes a baseline for the targets outlined under SD1, which will also enable progress to be tracked over time.

SD1 Targets

- **Target 1:** 75% of New Zealanders understand what biosecurity means and why it is important
- **Addition 1 to Target 1:** 80% of New Zealanders accept those involved in managing, controlling, and eradicating pests and diseases use appropriate tools and activities, such as controlled spraying, use of poison baits, and/or movement restrictions
- **Addition 2 to Target 1:** 80% of New Zealanders find it easy to understand what they need to do if they find a pest or disease
- **Target 2:** 500,000 New Zealanders regularly take action to control plant or animal pests in their community
- **Target 3*:** 90% of relevant businesses are actively managing pest and disease risk associated with their business and have committed to biosecurity actions through key planning and strategy documents and/or adopting active biosecurity management practices

*Addressed in survey of businesses, which will follow in February 2018

Approach

1,150
ONLINE INTERVIEWS
with New Zealanders aged
18+.



FIELDWORK DATES
29 November to 18 December 2017

SAMPLING AND WEIGHTING

The total sample (n=1,150) includes a nationally representative group of New Zealanders aged 18+ (n=1,000), and a booster group of Māori respondents (n=150).

Quotas were set by gender, age, region, ethnic group, and household income for the nationally representative group. The data has been post-weighted to ensure the total sample is representative of the New Zealand population by these demographics.

SIGNIFICANCE TESTING

Any differences between sub-groups and the average are statistically significant at the 95% confidence level (unless otherwise specified).

The following symbols are used to signify where a finding is higher or lower than average:

- ▲ Higher than average
- ▼ Lower than average

NETT RESULTS

Nett results may not always add to the sum of their parts shown in a chart, this is due to rounding.

For example:

12% 'Strongly agree' and **48% 'Tend to agree'** that they know what they should do if they find an unusual pest, weed, or disease. However, **the 'Nett agree' percentage is 59% (not 60%).**

SOCIAL DESIRABILITY BIAS

Results around self-reported biosecurity behaviours should be interpreted with caution.

It is well established that survey participants often overstate the extent to which they undertake 'socially desirable' behaviours, such as those measured in this survey.

However, the online survey method is less likely to be affected by this type of error compared to other interview-administered methods, such as a telephone survey.

Key findings



Understanding and importance of biosecurity



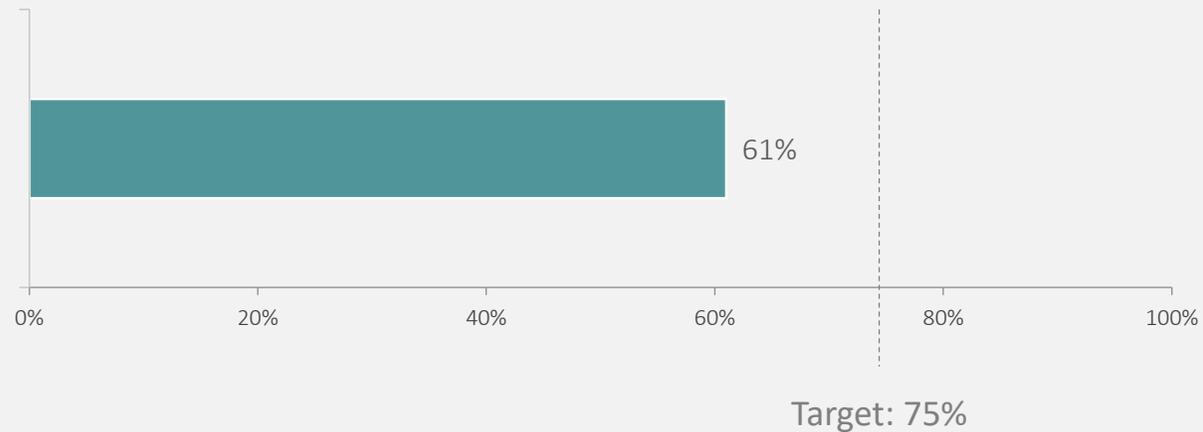
Progress against Target

Biosecurity 2025's target is for 75% of adult New Zealanders to understand what biosecurity means and why it is important. Currently, 61% rate their knowledge of the term 'biosecurity' highly *and* place high importance on the need to protect New Zealand from unwanted pests, weeds, and diseases. A further 14% need to meet these criteria for the target to be achieved.

Target: 75% of adult New Zealanders understand what biosecurity means and why it is important

How would you rate your understanding as to what the term 'biosecurity' means? + Overall, how important do you think it is to protect New Zealand from unwanted pests, weeds, and diseases?

Percentage who say they have a good understanding of biosecurity **and** think it's important (rate '7' to '10' on a scale of 0-10)



Source: Q1, Q2
Base: All respondents (n=1,150)

Who should be focused on?



Those aged under 30 (51%), particularly 18-24 year-olds (35%), are less likely than average (61%) to understand what biosecurity means and think it is important.

Self-assessed understanding of the term 'biosecurity'

Sixty-two percent of New Zealand adults say they have a good understanding of what the term 'biosecurity' means already (rating '7' to '10' on a scale of 0 to 10). There is an opportunity to improve understanding among the 25% who say they have only a moderate understanding (rating '4' to '6').

Do people understand what biosecurity means?

How would you rate your understanding as to what the term 'biosecurity' means?

Ratings from '0 - I don't understand it at all' to '10 - I know exactly what it means'



Life experience makes a difference?

Those aged 60 and over (71%) are more likely than average (62%) to rate their understanding highly ('7' to '10').

Whereas, those aged 18-24 (39%) are more likely than average (25%) to rate their understanding moderately ('4' to '6').

Awareness of the elements of the biosecurity system

Some biosecurity elements are more familiar to the public than others. Most New Zealand adults are aware that biosecurity impacts the import and export of goods, and the monitoring of risks within New Zealand. However, fewer are certain of biosecurity’s connection with Māori custom and The Treaty of Waitangi. Under 30 year-olds are generally less certain about these elements compared to the average.

Do people understand what biosecurity means?

As far as you know, do you think the New Zealand biosecurity system involves...?



Source: Q19
Base: All respondents (n=1,150)

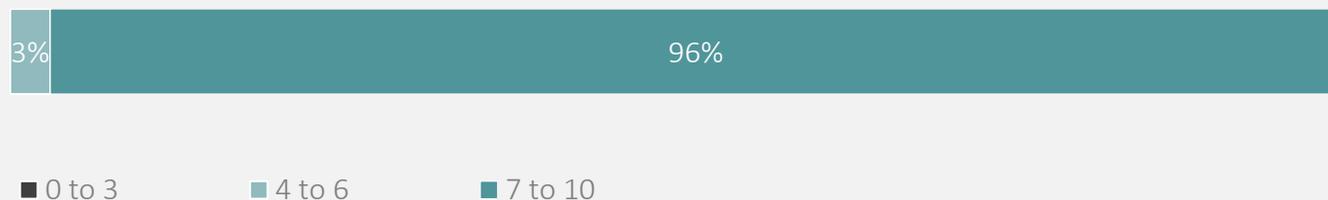
Importance of biosecurity

Nearly all New Zealand adults recognise the importance of protecting New Zealand from unwanted pests, weeds, and diseases – 96% rate its importance highly (rating '7' to '10' on a scale of 0 to 10). No one says that it is not important (rating '0' to '3').

Do people understand why they should care about biosecurity?

Overall, how important do you think it is to protect New Zealand from unwanted pests, weeds, and diseases?

Ratings from '0 – Not at all important' to '10 – Extremely important'



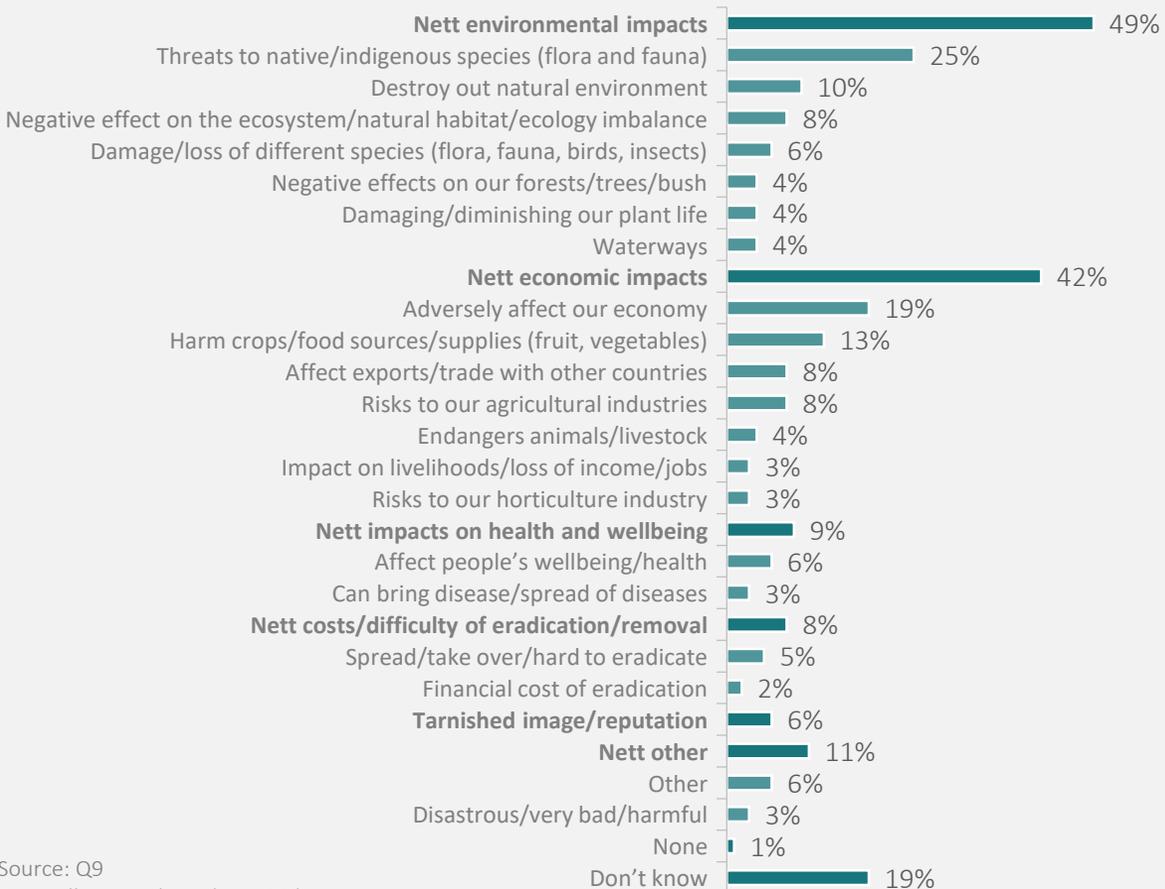
Māori people (86%) are more likely than others (81%) to say that biosecurity is *extremely* important (rating a '9' or '10' out of 10).

Perceived impacts of a biosecurity breach

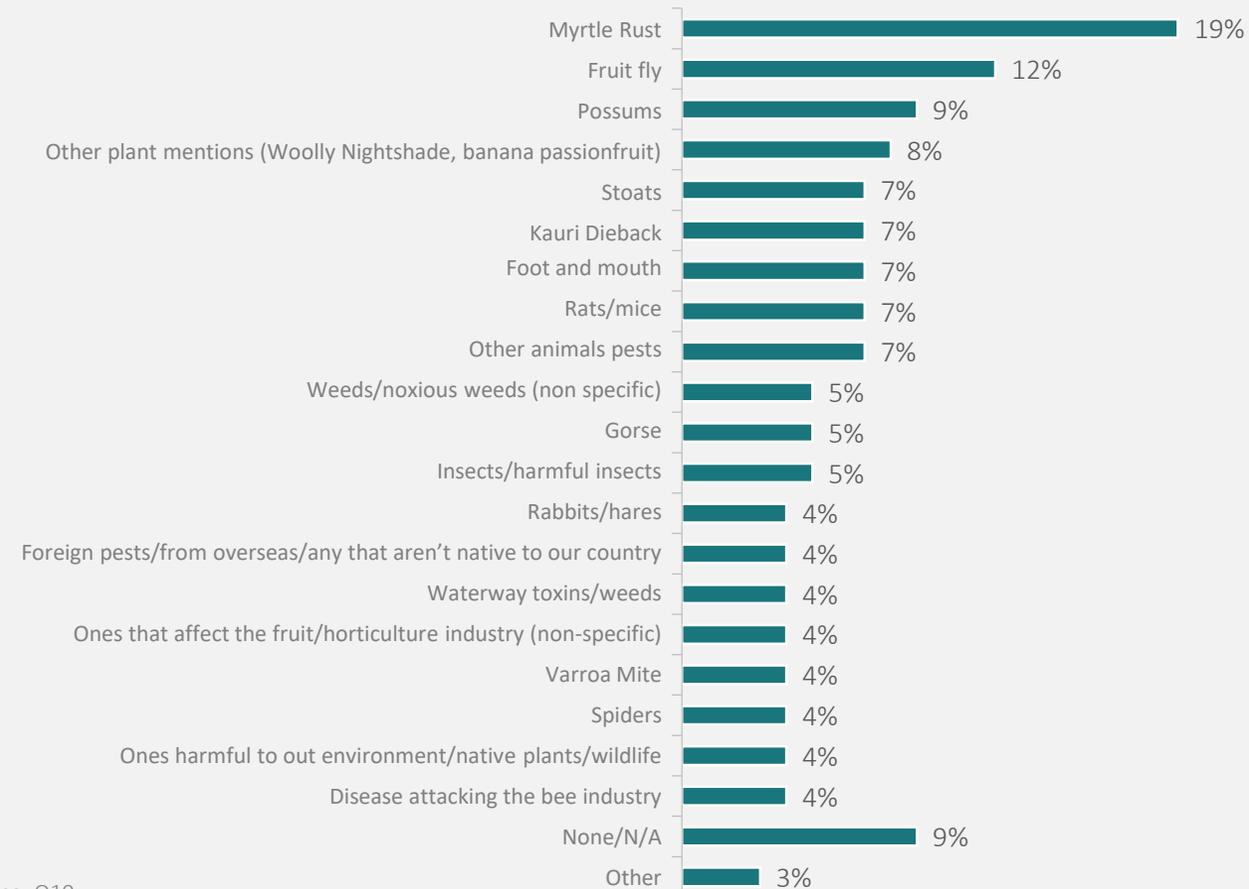
The environmental (49%) and economic impacts (42%) of a biosecurity breach loom largest in the minds of New Zealanders. Potential environmental impacts include damage to native flora and fauna, whilst the agriculture and horticulture industries are seen to be vulnerable sectors of the economy. Around a third of those (who named an impact) weren't thinking of any specific type of breach when they were answering. Others were most likely to be thinking of Myrtle Rust (19%), fruit flies (12%), and possums (9%).

Do people understand why they should care about biosecurity?

What do you think are the likely impacts of the introduction of an unwanted pest, weed, or disease into New Zealand?



What specific pests, weeds, and diseases were you thinking of?



Source: Q9

Base: All respondents (n=1,150)

Note: Codes mentioned by less than 3% of respondents are not displayed on the chart.

Source: Q10

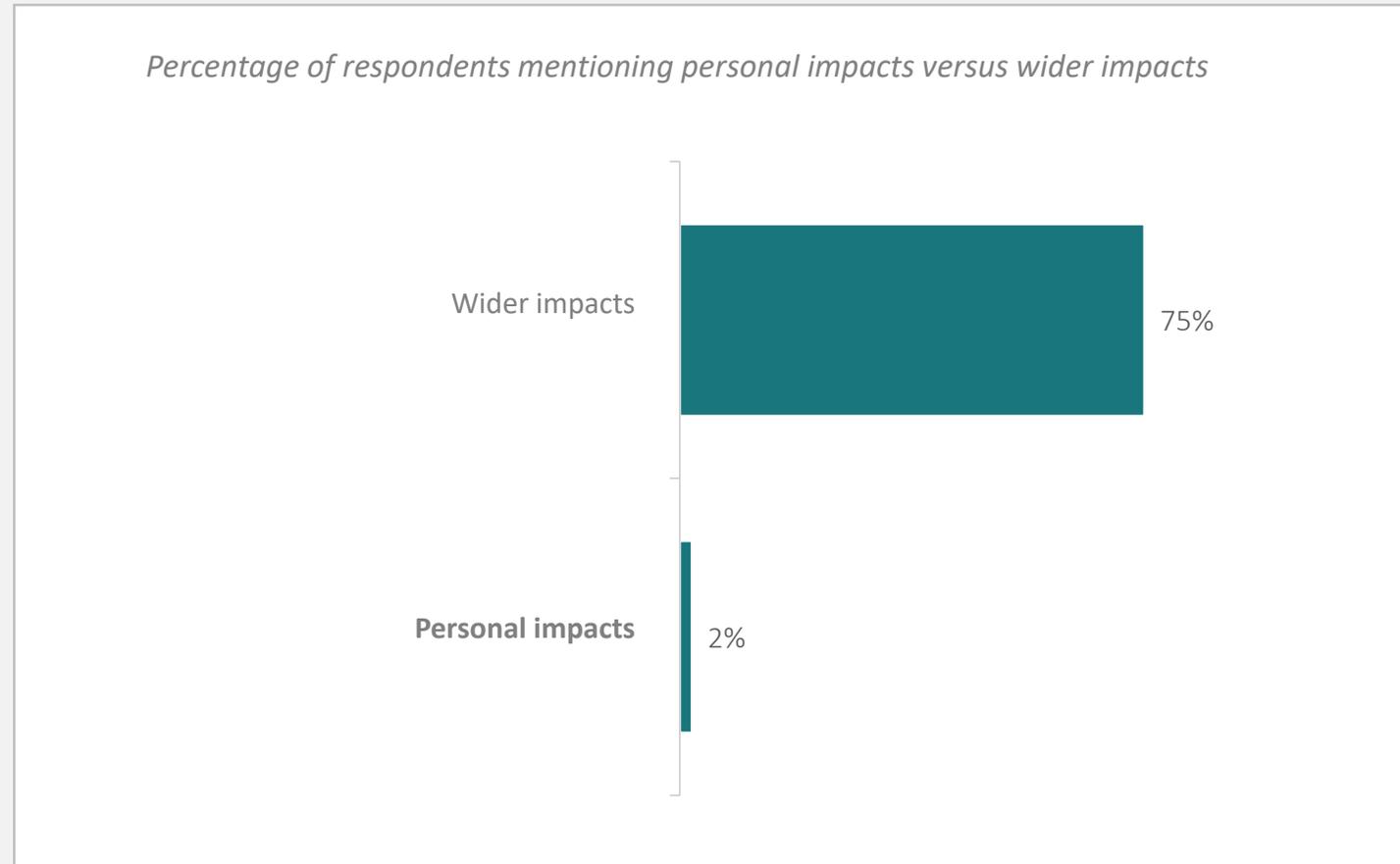
Base: All respondents, excluding those who couldn't name any impacts (n=929)

Note: Codes mentioned by less than 4% of respondents are not displayed on the chart. © COLMAR BRUNTON 16

Perceived impacts – personal relevance

Further analysis of verbatim responses reveals that 2% of respondents mention how a breach would directly affect their lives, compared to 75% who mention wider impacts on New Zealand. This suggests that personal relevance is lacking for many New Zealanders. No demographic groups are more likely than average to mention personal impacts.

Do people see biosecurity as being personally relevant to them?



Source: Q9

Base: All respondents (n=1,150)

Note: Respondents may have mentioned both personal impacts and wider impacts. Chart does not display 'Don't know', 'No comment'

Perceived impacts – personal relevance

Some examples of respondents' comments are provided below.

Do people see biosecurity as being personally relevant to them?

What do you think are the likely impacts of the introduction of an unwanted pest, weed, or disease into New Zealand?

"Massive agricultural losses, consequent economic losses. Possible permanent loss of certain species, which has ripple effects to the wider environment."

Male, 25-39, Southland, Thinker

"Severe impact on our agriculture and dairy industry. Also our native forests and parks."

Male, 60+, Auckland, Cherry Picker

"Uneducated people bringing illegal plants and materials into New Zealand."

Female, 25-39, Christchurch, Blissfully Ignorant

"Loss of fresh produce from my garden would be devastating for ourselves and my community. Also the impact of diseases on our oyster farms has meant a huge loss of earnings and the loss of jobs."

Female, 40-59, Northland, Accidental Hero

"Our native species can get wiped out which I don't want as I wish for my daughter to see the native species of New Zealand."

Female, 25-39, Waikato, Cherry Picker

"It could end up destroying our flora and fauna. I still want New Zealand to be clean and green, for my children, their children, and New Zealand's future. Because once it's gone it can't be replaced."

Male, 60+, Bay of Plenty, Ally

Social acceptance of biosecurity measures



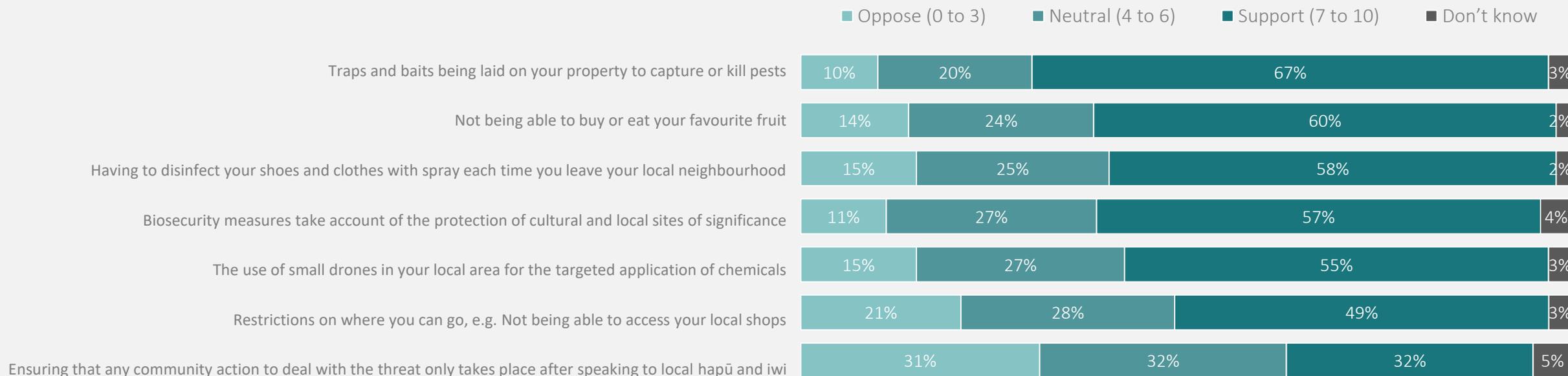
Social acceptance of biosecurity measures

New Zealanders are inclined to support the use of traps and baits on their properties, disinfectant on clothing, and small drones to apply chemicals. Movement restrictions have the lowest support among the specific tools and activities measured (49%).

How comfortable are people with biosecurity measures taken?

How much would you oppose or support the following measures to prevent the spread of an unwanted pest, weed, or disease?

Ratings from '0 – Strongly oppose' to '10 – Strongly support'



Source: Q23
Base: All respondents (n=1,150)

Progress against Target

A target of Biosecurity 2025 is for 80% of New Zealanders to accept those involved in managing, controlling, and eradicating pests and diseases use appropriate tools and activities. We calculated an average score for each respondent across the five specific biosecurity measures* asked about in the survey. Currently, 54% are Supporters – they generally support each of the five measures. Around a third (36%) tend to be neutral towards biosecurity tools and activities, whilst a minority (8%) are generally opposed.

How comfortable are people with biosecurity measures taken?

*Overall sentiment towards biosecurity measures
(average responses across biosecurity measures*)*



Average = 6.7/10

**Those aged 60 and over (63%)
are more likely than average
(54%) to be Supporters.**

Source: Q23

Base: All respondents (n=1,150)

*"Ensuring that any community action to deal with the threat only takes place after speaking to local hapū and iwi" and "Biosecurity measures take account of the protection of cultural and local sites of significance" were not included in the calculation

Knowledge of biosecurity risks and perceptions of information available on the risks



Progress against Target

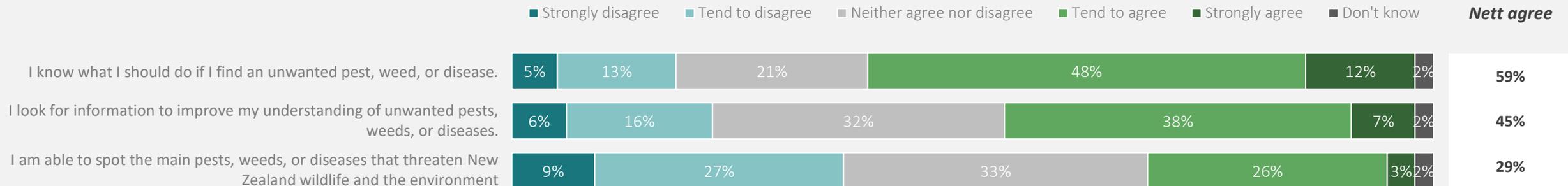
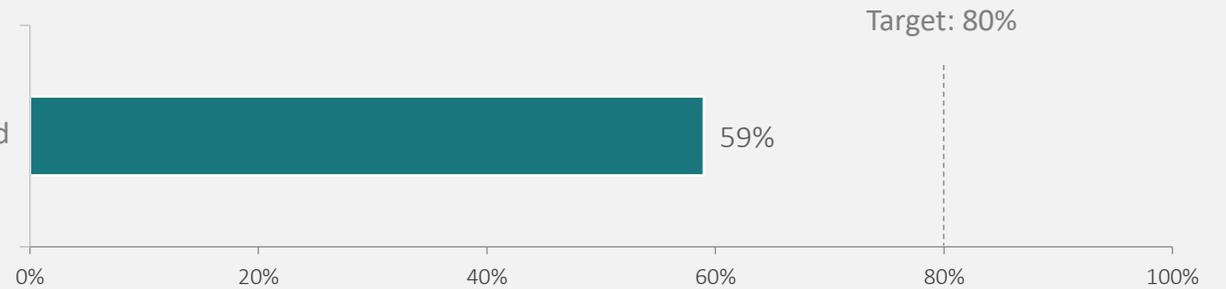
The target is for 80% of New Zealanders to know what to do if they find an unwanted pest, weed, or disease. Currently, three in five (59%) New Zealand adults say they know what they should do in this situation. Twenty percent say they do not know what to do (either disagreeing or saying don't know). The remaining 21% neither agree nor disagree with the statement indicating they are uncertain about what they should do. Those aged under 30 (46%), and particularly 18-24 year-olds (35%), are less likely than average to think they know what to do. The same is true of Pacific peoples (37%). Just under half (45%) say that they look for information to improve their understanding of pests, weeds, and diseases, whilst 29% are confident they can spot the main pests, weeds, and diseases prevalent in New Zealand.

Do people know what action to take?

How much do you agree or disagree with the following statements?

Percentage who 'Tend to agree' or 'Strongly agree'

I know what I should do if I find an unwanted pest, weed, or disease in New Zealand



Source: Q11
Base: All respondents (n=1,150)

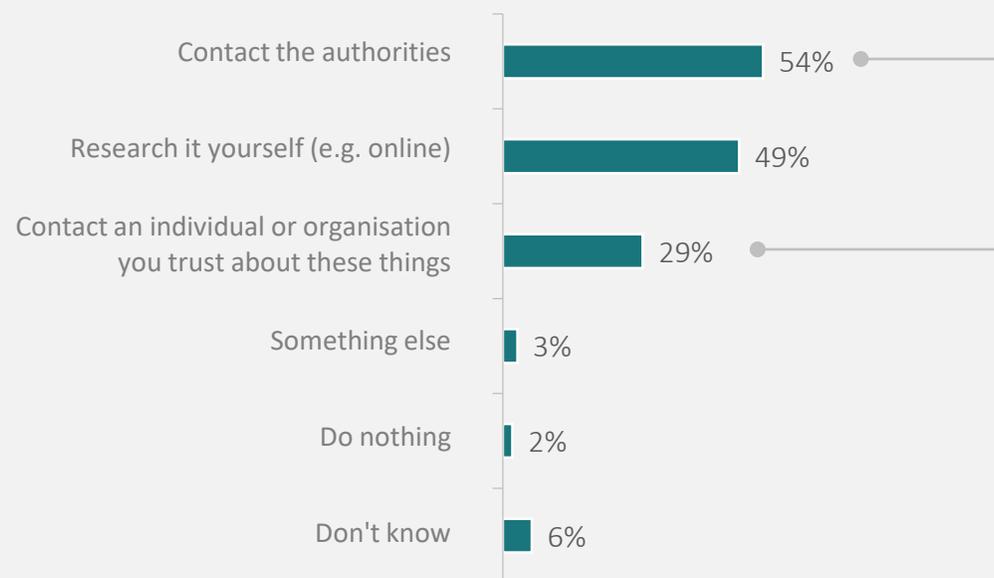
Reactions to noticing an unwanted pest, weed, or disease

People are most likely to contact the authorities (54%) if they notice an unwanted pest, weed, or disease. Half (49%) would do their own research into the pest. Those not born in NZ (60%) are more likely than average to contact authorities, whilst those living in rural areas (37%) and Māori (35%) are more likely than average to contact individuals or organisations they trust. Under 30 year-olds are more likely than average to do their own research (61%).

Those who would contact the authorities, or an individual or organisation they trust are most likely to rely on the Department of Conservation or local government, whilst 43% would contact MPI directly. Comparatively few would speak to a trusted adviser in the community.

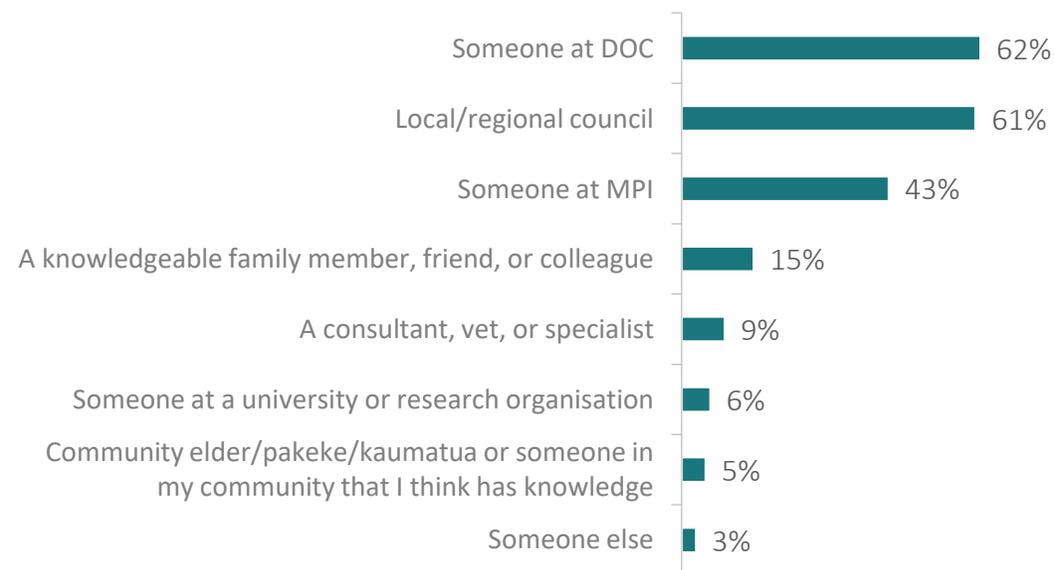
Do people know what action to take?

If you noticed an unwanted pest, weed, or disease tomorrow, would your first reaction be to...?



Source: Q12
Base: All respondents (n=1,150)

You mentioned you would contact the authorities/an individual or organisation you trust. Who would that be?



Source: Q13
Base: Those who would contact an individual or organisation they trust (n=793)

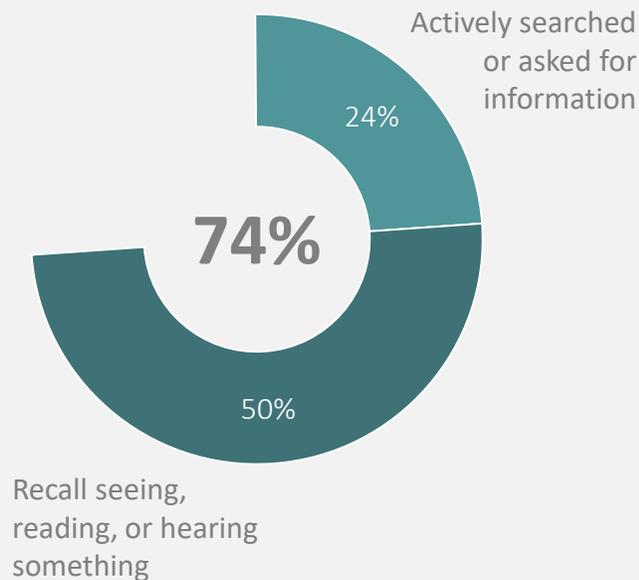
Accessing and understanding information about pests, weeds, and diseases

A majority (74%) of the public have either actively sought information about pests, weeds, and diseases (24%), or recall seeing something (50%) in the past year. Those with an outdoor space are more likely than those without to have actively searched (25%, compared to 10%).

Three in five (60%) say the information is easy to understand, and 68% of those who look for information agree it is easy to find.

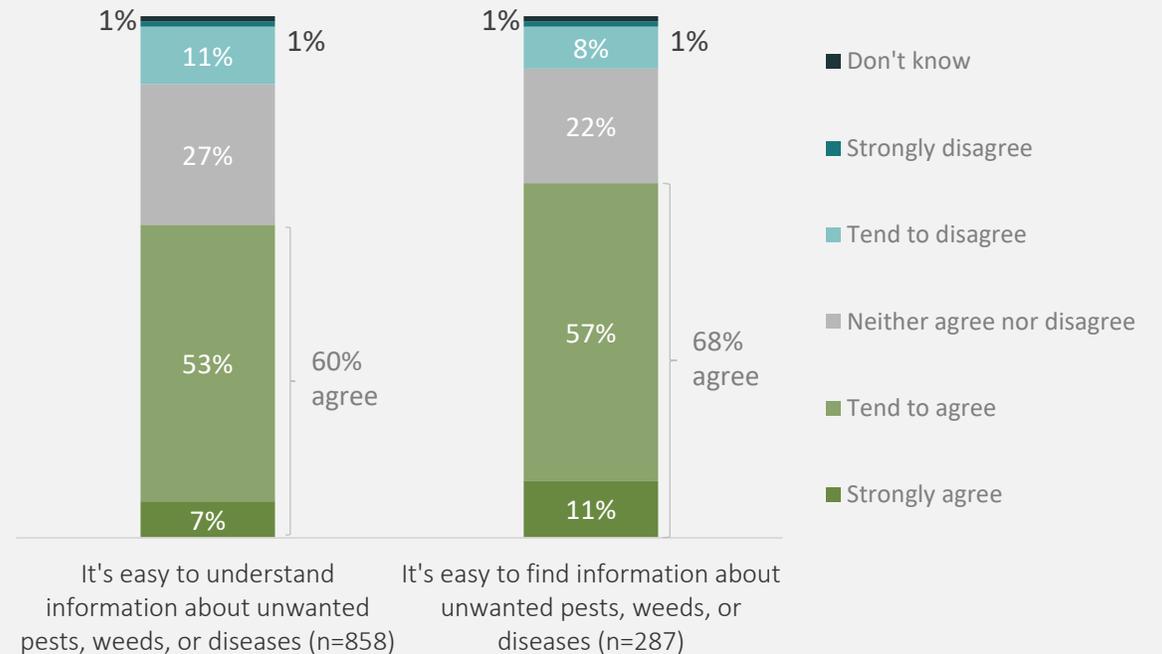
Ease of accessing and understanding available information

Searched, asked for, seen, read, or heard any information about pests, weeds, and diseases in the past 12 months



Source: Q14, Q16
Base: All respondents (n=1,150)

How much do you agree or disagree that...?



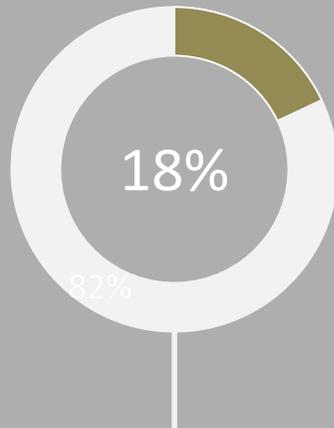
Source: Q18
Base: Those who actively sought or recall seeing information

Taking action on biosecurity



Progress against Target

500,000 New Zealanders regularly take action to control plant or animal pests in their community



of adult New Zealanders regularly took action to control unwanted pests or weeds beyond their own properties during the past year

Source: Q5
Base: All respondents (n=1,150)

That's approximately
576,000 people*
which means... target exceeded

*With a margin of error of +/- 2.2% (between 563,000 and 589,000 people)

Profile: Those who take direct action

Those who are active in controlling pests and weeds in their communities and beyond are from all walks of life. The profile of these people is consistent with the national population.

	<i>National population</i>	<i>Those who regularly took action to control pests or weeds beyond their own properties in the past year</i>
 Gender	Male 48% Female 52%	Male 50% Female 49%
 Age	18-24 7% 25-39 30% 40-59 36% 60 and over 26%	18-24 4% 25-39 31% 40-59 34% 60 and over 31%
 Location	Urban 31% Suburban 51% Rural 18%	Urban 32% Suburban 47% Rural 21%
 Annual household income	Up to \$50,000 40% \$50,001 to \$100,000 15% More than \$100,000 45%	Up to \$50,000 43% \$50,001 to \$100,000 12% More than \$100,000 45%
 Ethnic group	European 77% Māori 12% Pacific 6% Asian 13% Other ethnic group 2%	European 75% Māori 14% Pacific 6% Asian 12% Other ethnic group 2%

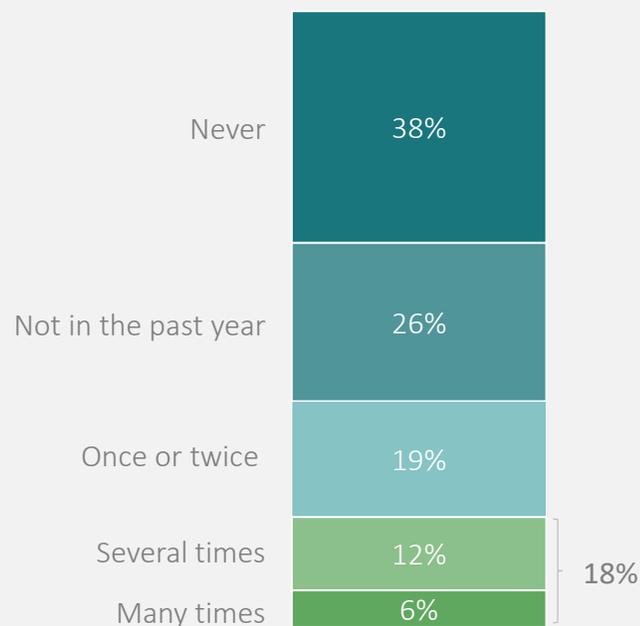
Direct biosecurity action

Eighteen percent (18%) of New Zealanders regularly took action to control pests and weeds beyond their own properties in the past year (6% did it many times, and 12% several times).

Those who take direct action are impelled by a range of altruistic (where the outcome benefits others, 75%) and non-altruistic motivations (where the outcome is a personal benefit, 90%). Around half (53%) feel taking action is a moral responsibility; it's just the right thing to do, whilst cleanliness also motivates half (50%) of those who have taken action. The top altruistic motivations include a desire to protect New Zealand's environment (60%), and linked to this, a desire to prevent harm to plants and vegetation (51%).

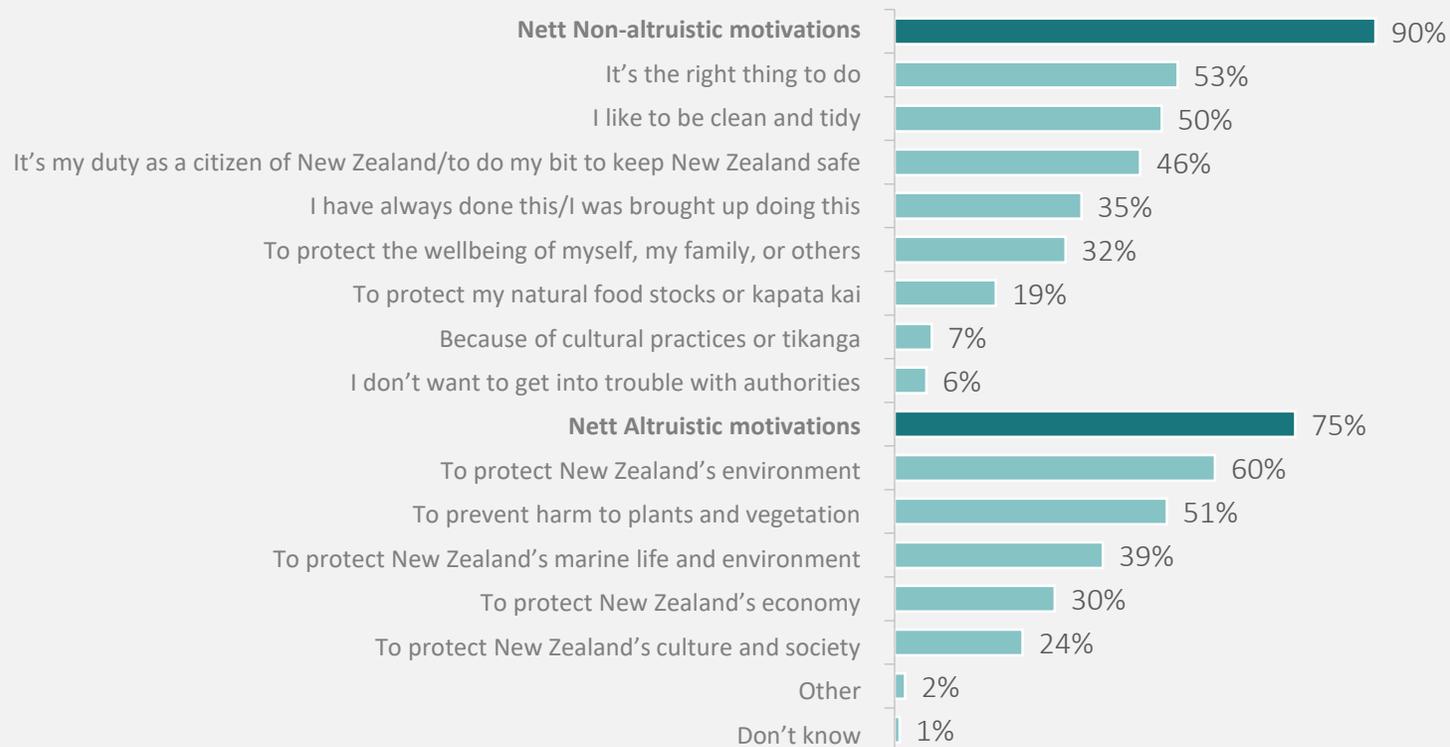
Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort? Are people taking action to control pests and weeds to have an impact beyond their property?

Thinking about the past year, how often, if ever, have you taken action to control unwanted pests or weeds somewhere beyond your own property?



Source: Q5
Base: All respondents (n=1,100)*
*n=50 pilot respondents did not answer this question

For what reasons do you undertake those actions?



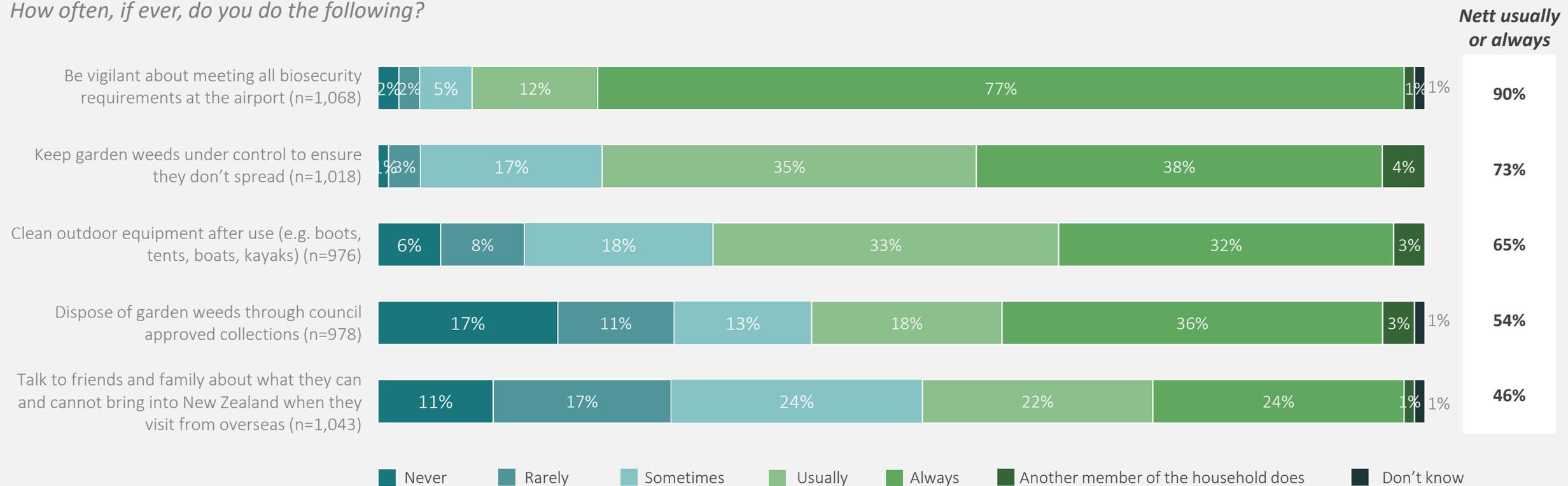
Source: Q7
Base: All who took action beyond their own property (n=456)

Other biosecurity actions (1)

New Zealanders may also play their part in the system through other actions. The vigilance with which New Zealanders undertake these actions varies greatly depending on the action. Most New Zealanders are 'usually or always' (90%) careful about meeting biosecurity requirements when they return to the country. A majority 'usually or always' keep weeds under control in their own gardens (73%) and clean outdoor equipment after use (65%). Around half 'usually or always' get rid of garden weeds through approved collections, and talk to friends and relatives about biosecurity requirements when they visit from abroad.

Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort? Are people taking action to control pests and weeds to have an impact beyond their property?

How often, if ever, do you do the following?



Source: Q3

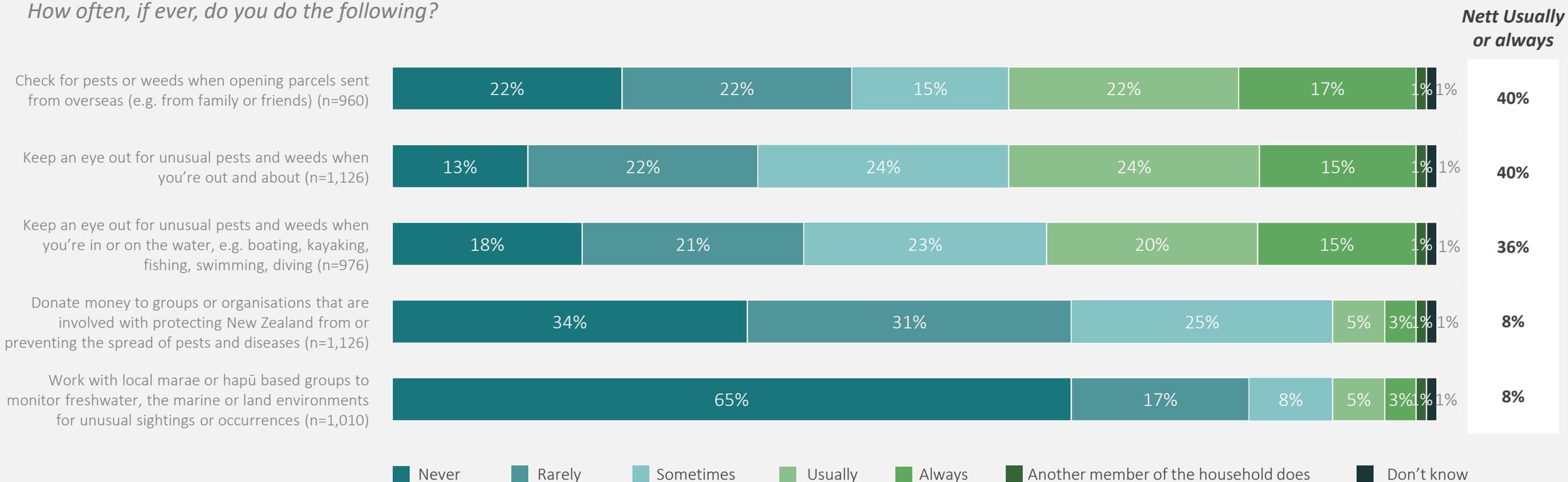
Base: All respondents, excluding 'Not applicable'

Other biosecurity actions (2)

A number of other biosecurity actions have not gained traction among the majority of New Zealanders. Around two in five 'usually or always' check for pests or weeds in parcels they receive from overseas (40%) and watch out for unusual pests and weeds when they're out and about (40%) or on the water (36%). Just 8% regularly donate money to groups who help protect New Zealand from pests, weeds, and diseases, and work with local marae or hapū to monitor the environment.

**Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort?
Are people taking action to control pests and weeds to have an impact beyond their property?**

How often, if ever, do you do the following?



Source: Q3

Base: All respondents, excluding 'Not applicable'

Other biosecurity actions: sub-group differences

Some groups are more likely to undertake certain actions than average.

**Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort?
Are people taking action to control pests and weeds to have an impact beyond their property?**

- Those with outdoor space are more likely than those without to 'usually or always' keep an eye out for pests and weeds when they are out and about (40%, compared to 24%).
- Those living rurally (45%) and Māori people (41%) are more likely than average (36%) to keep an eye out for pests and weeds 'usually' or 'always' when they are in, or on the water.
- Māori people are more likely than average (7%) to 'usually or always' work with local marae or hapū based groups to monitor the environment (14%) and donate money to groups involved in biosecurity (12%, compared to 8%).

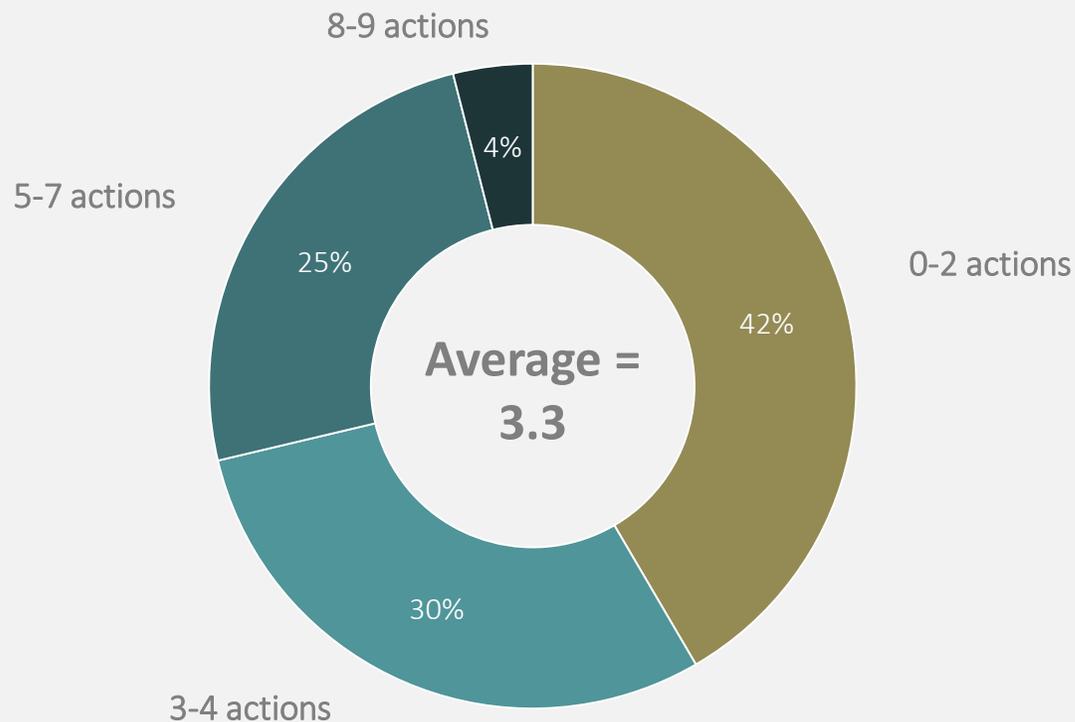


Number of actions taken regularly

We counted the number of actions each respondent took regularly (including direct action and other actions). Out of a possible 9 actions each respondent could have taken regularly, the average was 3.3. A sizeable proportion (42%) did less than 3 of the actions regularly, whilst only 4% did 8 or 9 of them.

**Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort?
Are people taking action to control pests and weeds to have an impact beyond their property?**

*Number of actions taken regularly
(direct action undertaken 'several' or 'many' times in the past year, and other actions undertaken 'usually' or 'always')*



Who does more?

The following groups are more likely than average (28%) to have done at least 5 actions regularly:

- Those who weren't born in NZ (37%)
- Those aged 60 and over (36%)
- Those who say they have a good understanding of biosecurity (35%)

Who could be doing more?

The following groups are more likely than average (72%) to have done less than 5 actions regularly:

- Those with no outdoor space (81%)
- Under 30 year-olds (80%), and particularly 18-24 year-olds (88%)

Source: Q3, Q5

Base: All respondents (n=1,150)

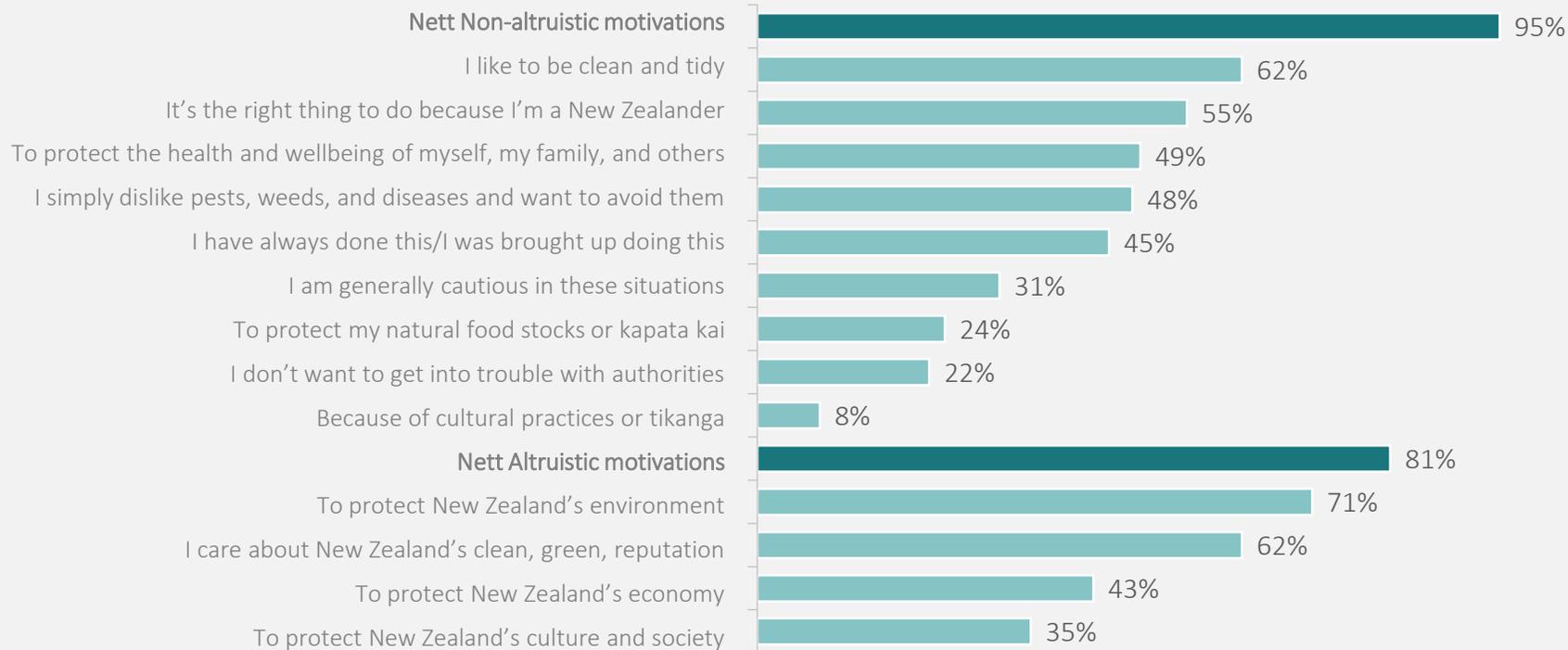
Note: Indirect actions asked only of respondents with an outdoor space were not counted

Motivations for biosecurity actions

Again, New Zealanders' reasons for undertaking other biosecurity actions are reflective of a range of altruistic and non-altruistic motivations. Non-altruistic factors such as liking to be clean and tidy (62%), simply disliking pests, weeds, and diseases (48%), and wanting to stay healthy are cited by sizeable proportions of those who have acted. However, the single most common reason given is a desire to protect New Zealand's environment (71%).

**Are people 'playing their part' in the biosecurity system? Are people part of a collective biosecurity effort?
Are people taking action to control pests and weeds to have an impact beyond their property?**

For what reason do you do this/these actions?



Cultural motivations may predict greater biosecurity action overall

Those who are motivated by the following factors undertake more biosecurity actions than the average (3.3):

- Cultural practices or tikanga (4.6)
- Protecting natural food stocks or kapata kai (4.0)
- Protecting New Zealand's culture and society (4.0)

Source: Q4

Base: All who do at least one action (n=1,129)

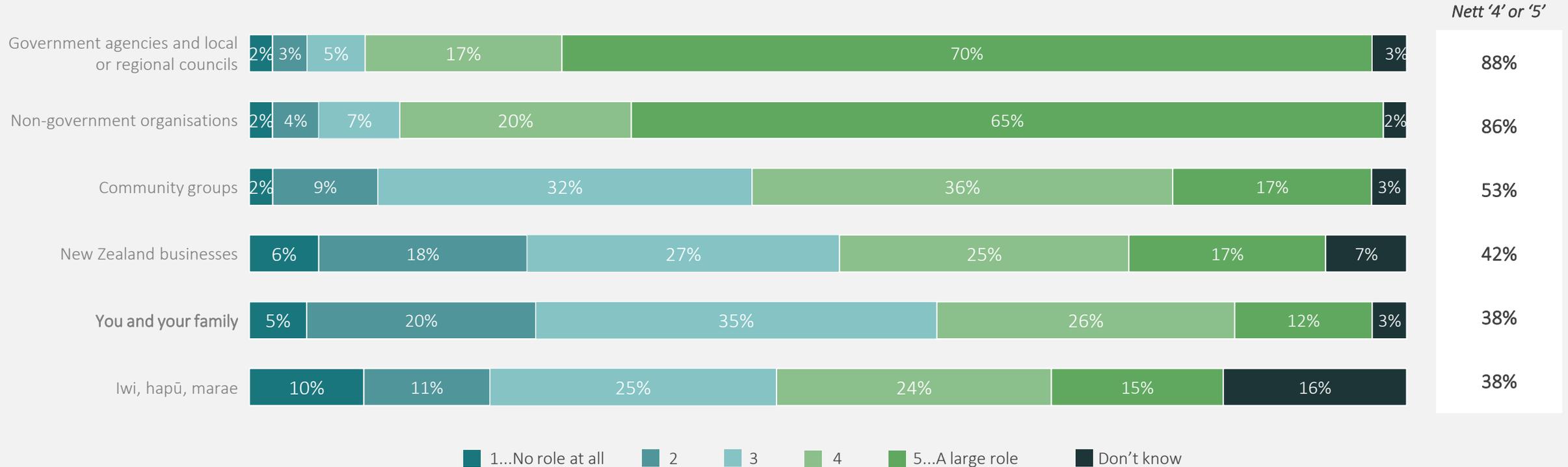
Note: Responses selected by less than 4% of respondents are not displayed on the chart.

Responsibility for biosecurity

A majority of individuals do not see themselves as playing a substantial role in biosecurity. Most see government agencies, councils, and non-government organisations as playing a large role. Just under two in five (38%) think themselves and their family play a substantial role (rating '4' or '5' out of 5, where 5 means 'a large role'). Those aged under 30 (29%) and particularly those aged 18-24 (13%) are less likely than average to say they play a substantial role.

Do they think they have a role to play?

How much of a role do you think each of the following play in helping to protect New Zealand from the entry or spread of pests, weeds, and diseases?



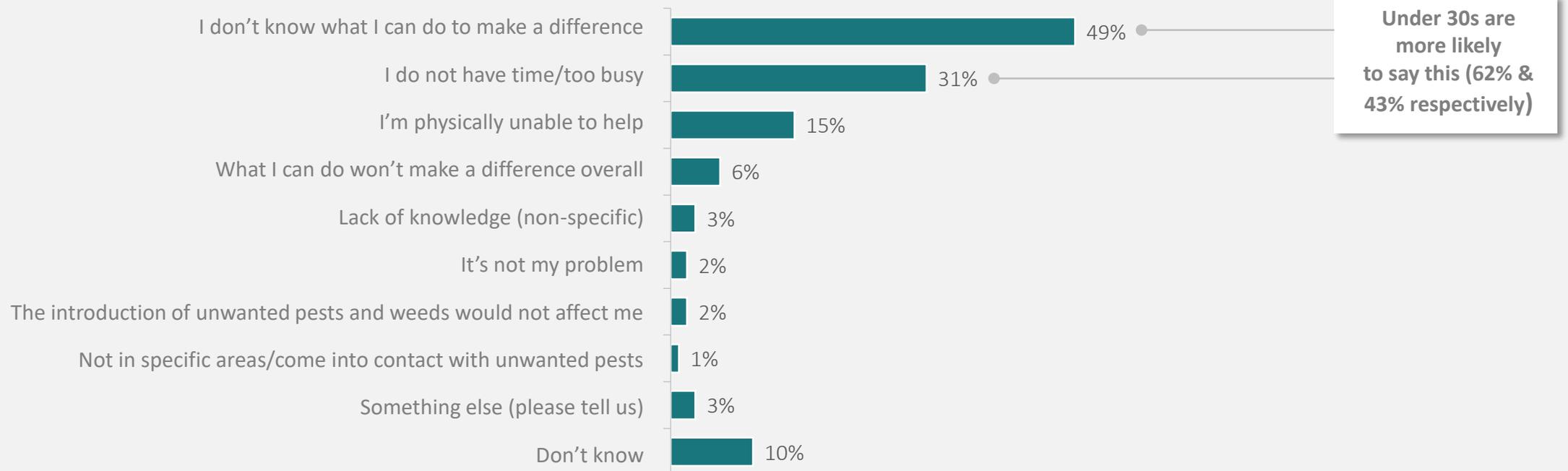
Source: Q21
Base: All respondents (n=1,500)

Barriers to playing a greater role in biosecurity

Lack of knowledge is a key barrier holding individuals back from playing a greater role in biosecurity. Half (49%) of those who don't think they have a large role to play in biosecurity say that is because they don't know what they can do to make a difference.

Do they think they have a role to play?

What, if anything, prevents you from taking a greater role in helping to protect New Zealand from unwanted pests, weeds, and diseases?



Source: Q22

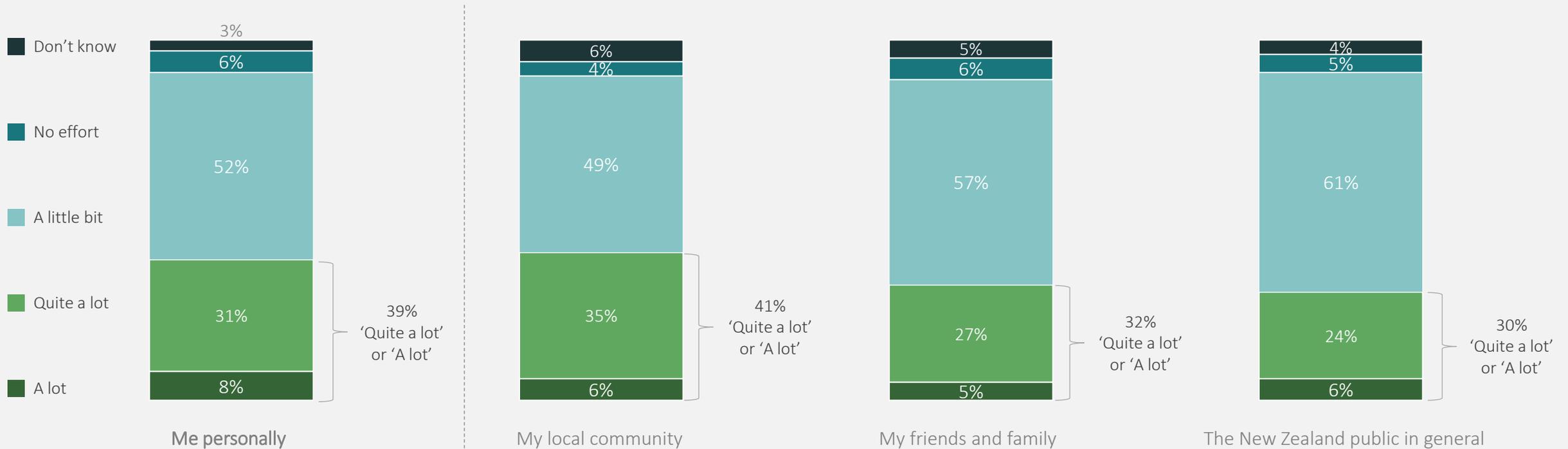
Base: Those who do not think they and their families have a large role to play (n=671)

Perceived effort in the biosecurity system

New Zealanders view their own personal effort in the biosecurity system similarly to that of people in their local community. They believe they make more effort (39% say they make quite a lot or a lot) than either 'their friends and family' (32%) or 'the wider public' (30%).

Do people think they have a role to play in biosecurity?

How much effort do you think each of the following make in taking action to protect New Zealand from unwanted pests, weeds, and diseases?



Source: Q20
Base: All respondents (n=1,150)

A segmentation approach

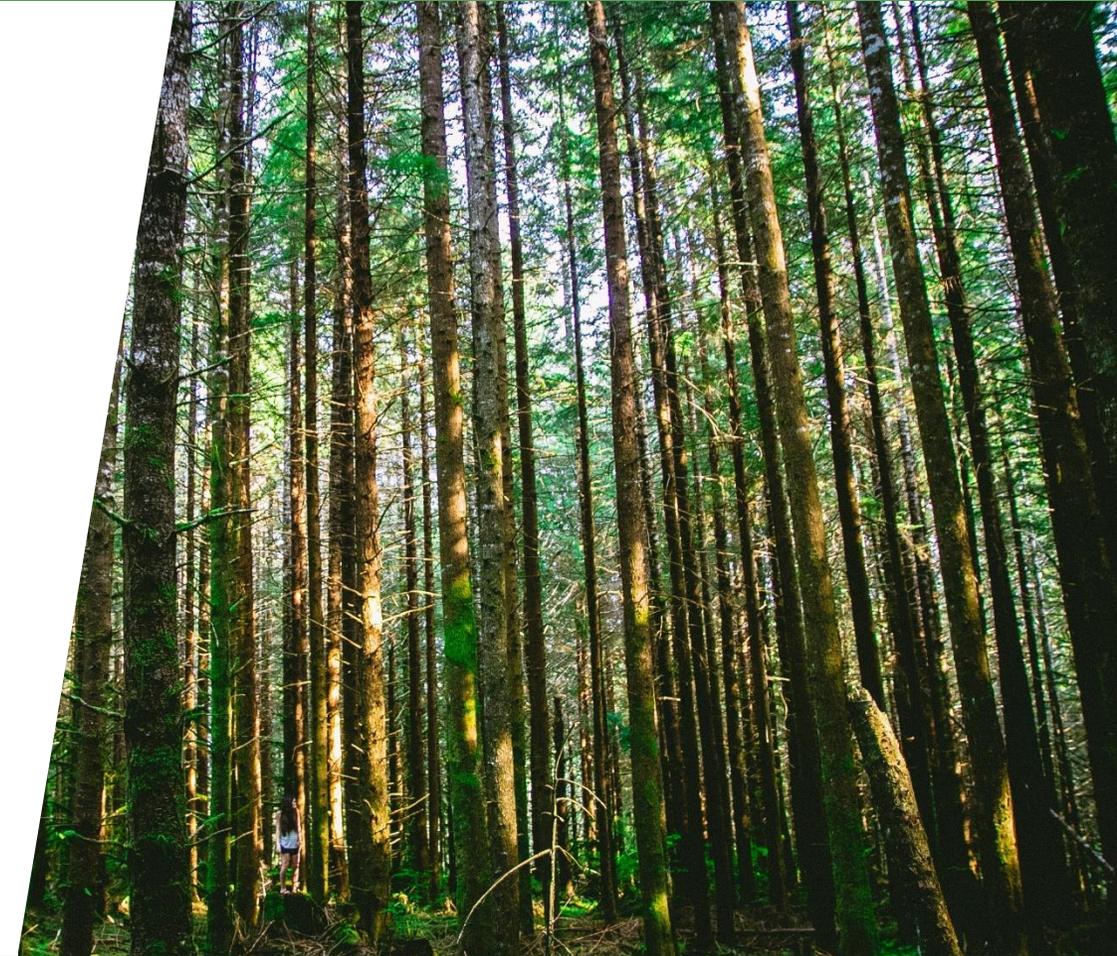
In 2016, Colmar Brunton undertook qualitative research to inform a more holistic communications approach around the biosecurity system. The research identified biosecurity attitudes and behaviours that were used to differentiate New Zealanders.

In this survey we measured the size of these segments using two key factors. These factors were identified as critical in the qualitative research.

- Respondents' self-assessed understanding of 'biosecurity'
- The number of biosecurity actions respondents regularly take

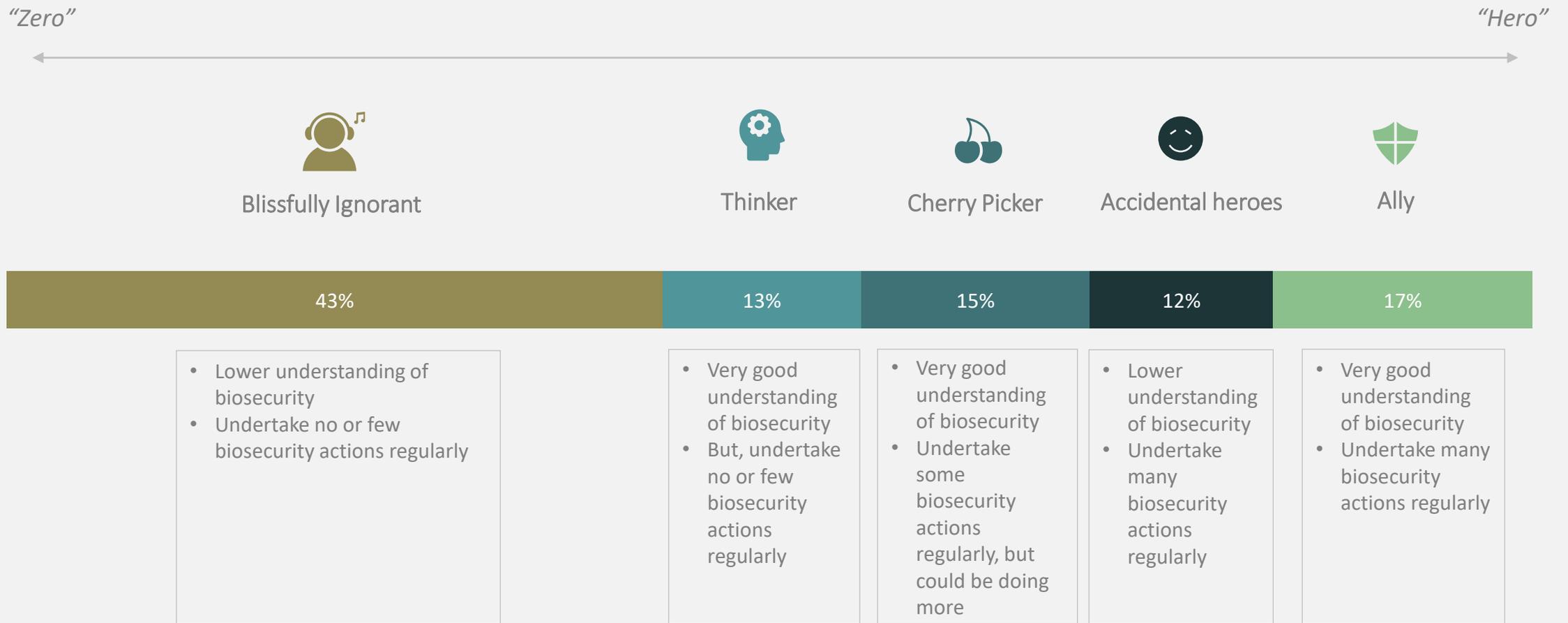
The original qualitative research identified four segments. When undertaking the survey analysis we identified an additional segment, 'Accidental heroes'.

The segments were created through cross-tabulation. The scope of the research did not include a 'full segmentation' based on statistical analyses of response clusters, which could result in alternative segment solutions.



Sizing the segments

The largest proportion of New Zealanders (43%) are “Blissfully Ignorant” – they don’t know much about biosecurity, and they don’t undertake many biosecurity actions regularly. At the other end of the spectrum are “Allies” (17%) who know what biosecurity means and are active in protecting New Zealand from unwanted pests, weeds, and diseases, whether that be through direct or indirect action.



Base: All respondents (n=1,150)
Source: Q1, Q3, Q5

Segment profiles

Males and older people are typically more likely to be engaged with biosecurity.

▲▼ = significantly higher/lower than national profile of the population

	 Blissfully Ignorant	 Thinker	 Cherry Picker	 Accidental Heroes	 Ally
 Gender	Male ▼ 40% Female ▲ 59%	Male 51% Female 49%	Male 55% Female 45%	Male 54% Female 46%	Male 54% Female 45%
 Age	18-24 ▲ 11% 25-39 ▲ 37% 40-59 33% 60 and over ▼ 19%	18-24 3% 25-39 24% 40-59 ▲ 48% 60 and over 25%	18-24 6% 25-39 ▼ 22% 40-59 36% 60 and over ▲ 15%	18-24 4% 25-39 37% 40-59 29% 60 and over 31%	18-24 ▼ 2% 25-39 ▼ 22% 40-59 39% 60 and over ▲ 36%
 Location	Urban 32% Suburban 50% Rural 18%	Urban 25% Suburban 59% Rural 16%	Urban 30% Suburban 58% Rural 12%	Urban 31% Suburban 45% Rural 23%	Urban 35% Suburban 44% Rural 21%
 Annual household income	Up to \$50,000 39% \$50,001 to \$100,000 15% More than \$100,000 46%	Up to \$50,000 41% \$50,001 to \$100,000 14% More than \$100,000 45%	Up to \$50,000 39% \$50,001 to \$100,000 14% More than \$100,000 47%	Up to \$50,000 36% \$50,001 to \$100,000 17% More than \$100,000 47%	Up to \$50,000 45% \$50,001 to \$100,000 13% More than \$100,000 42%
 Ethnic group	European 77% Māori 13% Pacific 8% Asian 11% Other ethnic group 1%	European ▲ 88% Māori 8% Pacific 4% Asian 7% Other ethnic group -	European ▲ 89% Māori 7% Pacific 4% Asian 7% Other ethnic group -	European ▼ 61% Māori 13% Pacific 10% Asian ▲ 29% Other ethnic group 1%	European 79% Māori 14% Pacific 4% Asian 13% Other ethnic group *

How else do the segments differ? (1)



Ally

Are more likely than average to:

- View biosecurity as important.
- Be motivated by a desire to protect the environment, the economy, culture and society, and health and wellbeing.
- Be motivated by tikanga or a desire to protect natural food stocks or kapata kai.
- Mention a number specific pests, weeds, and diseases that threaten New Zealand (e.g., Woolly Nightshade, banana passionfruit, Old Man's Beard, Foot and Mouth).
- Know what they should do if they find a pest, weed, or disease.
- Look for information about pests, weeds, and diseases.
- Know how to spot the main pests, weeds, and diseases.
- Think it's easy to understand information about pests, weeds, and diseases.
- Say they personally make a high amount of effort in biosecurity.
- Say that they and their family have a large role to play.



Accidental heroes

Are more likely than average to:

- Be motivated by a desire to protect culture and society.
- Be motivated by just generally being cautious.
- Be motivated by tikanga.
- Mention fruit flies as a pest that threaten New Zealand.
- Say they personally make a high amount of effort in biosecurity.
- Say that they and their family have a large role to play.



Cherry Picker

Are more likely than average to:

- View biosecurity as important.
- Be motivated by a desire to protect the environment and the economy.
- Mention Myrtle Rust as a pest that threatens New Zealand.
- Know what they should do if they find a pest, weed, or disease.

How else do the segments differ? (2)



Thinker

Are less likely than average to:

- Know what they should do if they find a pest, weed, or disease.
- Think it's easy to understand information about pests, weeds, and diseases.
- Say they personally make a high amount of effort in biosecurity.
- Say that they and their family have a large role to play.



Blissfully Ignorant

Are more likely than average to:

- Be held back by not knowing what they can do to make a difference.

Are less likely than average to:

- Know of any specific pests, weeds, or diseases that could threaten New Zealand
- Think of harm to the economy, exports/trade, and people's livelihoods as consequences of a biosecurity breach.
- Know what they should do if they find a pest, weed, or disease.
- Look for information about pests, weeds, and diseases.
- Know how to spot the main pests, weeds, and diseases.
- Think it's easy to understand information about pests, weeds, and diseases.
- Say they personally make a high amount of effort in biosecurity.
- Say that they and their family have a large role to play.

Going from “zero” to “hero”: how to communicate with each segment

The following recommendations are adapted from prior qualitative research, whilst taking into account the current survey findings.

“Zero”

“Hero”



43%

Blissfully Ignorant

Create awareness and interest about biosecurity. Content needs to be at a basic level.

Key messages need to introduce Biosecurity 2025, emphasise that biosecurity is critical, and emphasise that biosecurity functions are not limited to border control.

Consider ‘grass roots’ (e.g. community / school-based) approaches to raise awareness and normalise behaviour.



13%

Thinker

These people are aware of the issues but need a reason to act.

Therefore, any communications need a clear call to action, and clarity around what is required.

Communications should also seek to highlight the benefits of undertaking the desired behaviour and facilitate the ease of acting (in doing so, removing perceived barriers).



15%

Cherry Picker

Increase the breadth of action they undertake, so they are less selective in their behaviour and move towards compliance. These people have a rational appreciation of what is required.

To encourage action, tap into the more emotive aspects and core values. Leverage social pressure or influential others to influence the desired behaviour.



12%

Accidental heroes

This group already undertake a number of the desired biosecurity behaviours, but may not appreciate the full range of wider benefits their actions have.

Communications should highlight how actions taken for traditional or cultural reasons (e.g. tikanga) can also have positive effects for the economy, environment, and wellbeing more broadly to reinforce behaviour.



17%

Ally

These people are compliant, they undertake many biosecurity actions regularly. They are motivated by the benefits their actions have on others as well as themselves.

Use positive reinforcement to maintain the desired behaviours. Specifically, messaging around the effectiveness and overall success of biosecurity initiatives is required.

Conclusions



Answering the research questions

The survey aimed to answer a number of research questions. Relevant findings are summarised against each research question below and on the following page.



Do people understand what biosecurity means?

New Zealanders are generally confident in their understanding of biosecurity, but there is evidence that some do not actually have complete knowledge. Nearly two thirds (62%) rate their understanding of the term biosecurity highly, with most being aware that biosecurity impacts the import and export of goods, and the monitoring of risks within New Zealand. However, less than half are certain that biosecurity involves wider aspects such as tikanga training for biosecurity professionals, and adherences to the Treaty of Waitangi.



How comfortable are people with biosecurity measures taken?

Currently there is sizeable support for biosecurity measures, but room to shift attitudes further. Just over half (54%) of New Zealanders generally support specific tools and activities that may be employed to manage or control a biosecurity risk. A minority (8%) generally oppose such measures, whilst a third (36%) are neutral. Across the measures included in the survey, support is strongest for the laying of traps and baits on private properties (67% support this), and is lowest for movement restrictions (49% support).



Do people think they have a role to play in biosecurity?

Overall, New Zealanders are tentative about their role in biosecurity. They are generally of the opinion that government and non-government organisations play the largest role in biosecurity. This compares to 38% percent who see themselves and their families as playing a more substantial role. Additionally, 39% rate their own effort in biosecurity highly, compared to more than half (52%) who say they only do a little bit.



Do people understand why they should care about biosecurity?

- ***Is biosecurity personally relevant to people?***
- ***Do people think biosecurity relates to their values?***

- › The public generally feels biosecurity is important, but there is evidence it lacks salience for their personal lives. Nearly all (96%) New Zealanders acknowledge that biosecurity is highly important. When probed, just under half mention impacts a biosecurity breach could have on the environment and the economy. However, just 2% of people specifically think of the consequences for them personally. This suggests personal relevance is missing for many.
- › Additionally, only a minority see *themselves* as playing a large role in biosecurity, compared to most seeing government and non-government organisations playing a large role – further evidence that personal relevance is lacking.
- › New Zealanders' stated motivations for undertaking direct biosecurity action, as well as other biosecurity actions, are reflective of their diverse value-systems. Many are motivated by a perceived moral duty, as well as a desire to be clean. Some see biosecurity as part of their cultural practices or tikanga. Many are guided by a wider sense of responsibility for New Zealand's environment and economy.

Answering the research questions

The survey aimed to answer a number of research questions. Relevant findings are summarised against each research question below.



Do people know what action they should take?

- ***Is biosecurity information easily accessible?***
- ***Is biosecurity information easy to understand?***

More than half (59%) of New Zealanders agree that they know what to do if they find a pest, weed, or disease. Those people are most likely to contact the authorities (54%), do their own research (49%), or contact someone they trust (29%). Those who would get in contact with the authorities or someone else are most likely to contact DOC (62%), a local council (61%), or MPI (43%).

Those who have actively searched for information about pests, weeds, and diseases generally agree that it is easy to find (68%). Of all those who have searched for or recall seeing or hearing biosecurity information, 60% agree that it is easy to understand.



Are people making a conscious choice to participate?

The five typologies identified give the best indication of whether people are consciously taking part in biosecurity. The Blissfully Ignorant (43% of the population) and the Thinkers (13%) undertake few or no biosecurity actions regularly, and if they do, it is likely the action they take is something they must do to comply, e.g., declaring items at the airport, therefore they are unlikely to make a conscious choice. The Accidental Heroes (12%) undertake many actions, but this is more likely to be due to non-altruistic factors, such as general caution. They are also unlikely to be making a conscious choice to participate in the system. The Cherry Pickers (15%) and Allies (17%) are more likely than average to be motivated by a desire to protect New Zealand's environment and economy. Therefore these segments are making a more conscious effort to be part of the biosecurity system.



Are people 'playing their part' in the biosecurity system?

- ***Are people taking action to control unwanted pests, weeds, or diseases with the intention of having an impact beyond their own home?***
- ***Are people part of a collective biosecurity effort (a community effort)?***

- › The findings indicate that New Zealanders could be doing a lot more towards biosecurity. On average, people regularly undertake just over 3 out of 9 actions they could be taking towards protecting New Zealand from unwanted pests, weeds, and diseases. This includes 18% who regularly take action to control or manage pests somewhere beyond their own properties. It is assumed that this action would be as part of a collective community effort.
- › Most (90%) are regularly vigilant when passing through the checkpoints at the airport, however other 'easy' biosecurity actions such as keeping an eye out when out in nature are only undertaken by a minority of the public.
- › As mentioned, New Zealanders have a range of motivations for undertaking biosecurity actions. Many (81%) of those who do take action are motivated by "altruistic" factors, i.e., they want to benefit others. This might mean a desire to protect New Zealand's environment or economy. This suggests people are often intending to have an impact beyond their own properties, but they may also have "non-altruistic" motivations as well.

Appendix: Sample profiles and methodology report



Respondent profile (1)

Weighted profiles



Gender

Male	48%
Female	52%



Age

18-24	7%
25-39	30%
40-59	36%
60 and over	26%



Region

Northland	4%
Auckland	33%
Waikato	9%
Bay of Plenty	6%
Gisborne	1%
Hawke's Bay	4%
Taranaki	3%
Manawatu-Wanganui	5%
Wellington	11%
Tasman	1%
Nelson	1%
Marlborough	1%
West Coast	1%
Christchurch	9%
Canterbury (outside Christchurch)	4%
Otago	5%
Southland	2%



Rurality

Urban	31%
Suburban	51%
Rural	18%

Respondent profile (2)

Weighted profiles



Annual household income

Up to \$50,000	40%
\$50,001 to \$100,000	15%
More than \$100,000	45%



Migration status

Born in New Zealand	74%
Lived in New Zealand for up to 2 years	1%
Lived in New Zealand for 2 to 10 years	5%
Lived in New Zealand for more than 10 years	21%



Ethnic group

European	77%
Māori	12%
Pacific	6%
Asian	13%
Other ethnic group	2%



Outdoor space

Has an outdoor space	90%
Does not have an outdoor space	10%

Methodology

Sampling and weighting

- The total sample (n=1,150) consists of two groups:
 - A nationally representative group of New Zealand adults aged 18+ (n=1,000)
 - A booster group of Māori respondents (n=150)
- The sample was obtained via Colmar Brunton's online panel, where members participate in research for reward points.
- Quotas were set to ensure the nationally representative group aligns with Statistics New Zealand population proportions from the 2013 Census by the following demographics:
 - Gender
 - Age
 - Region
 - Ethnic identification
 - Household income
- The data was post-weighted to ensure the total sample (i.e. the nationally representative group *and* the booster group) are representative of the New Zealand population based on the measures above. Therefore, as Māori were over-sampled, they are weighted down in the sample. Details of the final weighted sample can be found on pages 48 and 49.

Fieldwork

- Fieldwork was conducted from 29 November to 18 December 2018.
- A final response rate of 32.5% was achieved.
- The average interview length was 15 minutes.

Analysis

- Analysis was conducted using SPSS and SPSS Report for Surveys software.
- Coding of free-text was conducted manually (using research supervision of in-house coding staff who analysed all open-ended questions and other-specify questions).
- Any differences in the report between sub-groups and the average are statistically significant at the 95% confidence level (unless otherwise specified).



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Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

on behalf of Biosecurity 2025

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