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# **Awareness and Confidence in Canada's Pesticide Regulatory System**

## **Findings Report**

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A handwritten signature in black ink, appearing to read "M. Colledge". The signature is stylized and written in a cursive-like font.

Mike Colledge, President  
Ipsos Public Affairs  
Signed on 3.20.23

This public opinion research report presents the results of an online survey and focus groups conducted by Ipsos Public Affairs on behalf of Health Canada. The research study was conducted with n=2206 Canadians participating in the survey and n=52 participating in the focus groups, from mid-January through March 2023.

Cette publication est aussi disponible en français sous le titre Connaissance du système de réglementation des pesticides du Canada et confiance à l'égard de celui-ci.

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# Executive Summary

## Introduction and Background

The Pest Management Regulatory Agency (PMRA, or Agency) is the branch of Health Canada responsible for regulating pesticides under the authority of the Pest Control Products Act (PCPA). The Agency's primary mandate is to prevent unacceptable risks to Canadians and the environment including wildlife, from the use of these products.

The PMRA works diligently to make and implement decisions that protect the health and environment of Canadians. The Agency recognizes that an ongoing, more deliberate, and sustained effort towards proactive, open and transparent engagement with Canadians will help to increase understanding of, and confidence in, the PMRA's work. In turn, this will support compliance with the requirements of the PCPA and the broader effectiveness of the PMRA's efforts to protect the health and environment of Canadians.

Over the past six years, the PMRA has been taking steps to strengthen the protection of human health and the environment including wildlife, and to build public confidence in the PMRA's work. In 2022, the PMRA launched this third wave of a public opinion research program aimed at gauging current public opinion compared to previous research results, and, where possible and appropriate, to support key initiatives under the PMRA Transformation Agenda announced in 2021.

## Research Objectives

The primary objective of this research is to measure Canadians' awareness of and confidence in Canada's pesticide regulatory system. More specifically, the research objectives are the following:

### Quantitative Research

- Measure Canadians' awareness of and confidence in Canada's pesticide regulatory system;
- Assess Canadians' opinions about the openness and transparency of Canada's pesticide regulatory system as well as the timeliness of decision-making;
- Assess Canadians' knowledge and opinions about pesticides in general;
- Determine Canadians' current information-seeking behaviours related to pesticides; and
- Measure changes from the 2019 survey results, where possible.

### Qualitative Research

The qualitative research was designed to provide a deeper understanding of:

- Canadians' awareness of and confidence in Canada's pesticide regulatory system;
- Reactions to an infographic on Maximum Residue Limit (MRL) and information on MRL increases for the purposes of food importation;
- Reactions to the new Public Registry webpage; and,
- Perspectives on the PMRA's efforts to broaden sources to support decision-making on pesticides.

## Overview of Methodology

This research was conducted in two phases:

The **quantitative component** of the research took the form of a 20-minute online survey, with a national sample of n=2,206 Canadians aged 18 years and older, including a sample boost of n=200 individuals who identify as a member of the Indigenous Peoples of Canada. The survey was administered using Ipsos' partner Canadian Viewpoint Inc panel-based resources for data collection. The survey instrument consisted of a series of closed-end and open-end questions designed in consultation with Health Canada. An online pre-test was conducted with 10 interviews completed in the English language and 10 interviews completed in the French language. Survey fieldwork took place between January 17, 2023 and February 2, 2023. The final survey data were weighted by region, gender, and age to reflect 2021 Census data.

The **qualitative component** of this research took the form of six (6) online focus groups with members of the general population. The qualitative design was national in scope, delivered in both official languages and additional effort was made to include the voices of Indigenous Peoples. A total of 52 participants took part in the research between February 15 and March 9, 2023. Topline findings from the quantitative phase informed the qualitative discussion guide. It should be noted that the qualitative findings are intended to reveal a rich range of opinions and interpretations. Qualitative findings should not be extrapolated to the broader population, as they are not statistically projectable.

## **Incentive/Honoraria**

For the quantitative survey, respondents were incentivized for completing the survey as part of their panel participation. The incentives used were directly proportionate to the length of the survey and in line with comparable incentives offered by other online panel sources.

For the qualitative focus groups, Ipsos provided an honorarium of \$125.00 CAD to participants to attend the focus groups in order to encourage full attendance. Participants who identified with Indigenous Peoples of Canada were offered a higher incentive of \$175.00 CAD as their incidence in the population is lower and therefore harder to recruit for research.

## **The Report**

This report contains the findings from both the quantitative online survey and the qualitative focus group sessions.

The quantitative data were weighted to the Canadian population data by region, gender, and age. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Where figures do not sum to 100, this is due to the effects of rounding.

Focus group quotes from French participants have been translated. To see the original quote, please refer to the French report.

## **Summary of Key Findings**

### **Awareness and impressions**

Pesticides are a topic Canadians don't often hear about – only 21% of Canadians reported hearing /reading /seeing (a lot or something) about pesticides in the past 3 months. In the qualitative research, there were only a handful of mentions of a lawsuit against one pesticide manufacturer, although occurring outside of Canada. However, increasingly, younger Canadians are taking notice of information and media coverage about pesticides. Compared to 2019, the proportion of

Canadians aged 18-34 who recalled hearing, reading or seeing information about pesticides increased significantly from 22% to 34%. Additionally, compared to four years ago, significantly more 18-34 year-olds indicated they feel adequately informed about pesticides and pest control products (27% to 41%).

Many Canadians continue to hold negative associations with pesticides. In fact, when asked what they associate pesticides with, Canadians were almost twice as likely to point out the negatives about pesticides, such as “bad for people” and “bad for the environment” than to mention the positive aspects of pesticides such as “pest/weed control” and “protect crops”. Top-of-mind associations among qualitative participants also tended to skew negative. Compared to 2019, more Canadians associated pesticides with “harming the environment, animals and insects”.

## **Perceptions and personal use**

The understanding that pesticides are “necessary and serve a purpose” resonated with some (53%). This moderate stance regarding the purpose of regular pesticides likely underlies respondents’ preference for homemade or natural alternatives over the use of a registered pesticide (68%) in the survey. The same trend was found among participants in qualitative focus group discussions.

Nonetheless, pesticides continue to be predominantly viewed in a negative light. Consistent with this view, the research found that many Canadians believe pesticides cannot be used safely even when instructions are followed (62%) and are not overly confident that they personally can use pesticides safely (51%), figures that are largely unchanged from 2019. The qualitative research found that much of the concerns related to the unknown long-term effects of the use of pesticides on human health first and foremost, though participants were also quick to point to the potential negative effects on the environment. That said, it is worth noting that it was evident in the qualitative discussions that beyond the generally negative connotations with pesticides, several participants had not considered the topic of the safety of pesticides in much depth – with participants tending towards a general assumption that products available for purchase have been appropriately tested and are therefore safe for use.

Concerns around pesticide safety likely discourage their use. Even though there has been an improvement in the acceptance of pesticide use in public spaces, around barns, and in imported or exported foods, these ratings remain low (between 44% for imported food and 49% for in and around barns). Only four in 10 agreed that the use of pesticides in schools and other public buildings is acceptable (42%). Unsurprisingly, when this was further discussed in the qualitative discussions, participants expressed concern about the potential effects on children and pets, along with the perceived lack of control over the situation.

Despite concerns and insecurities around the use of pesticides, more Canadians reported using pesticides frequently compared to four years ago (29% vs 26%). This was very much evident in the qualitative research where several participants noted that they turned to pesticides when a need arose; the use of insect repellent and swimming pool chemicals during the summer months was the most prevalent case. This underscores the importance of continuing to offer education on promoting safe use of pesticides.

Perceptions around the safe use of certain types of pesticides (e.g., controlling devices such as mosquito zappers and mouse traps, herbicides, insecticides, rodenticides, fungicides, and material and wood preservatives) have improved, though perceptions around rodenticides still lag behind other products. More respondents believe that personal insect repellents can be used safely compared to animal repellents to repel nuisance wildlife. In fact, the agreement that animal repellents can be used safely has been decreasing since 2016.



The survey found that Canadians are increasingly leaning toward the idea of natural alternatives. Significantly more younger Canadians 18-34 (60% from 53% in 2019) as well as those 35-54 reported that in their view there are natural alternatives to pesticides that are as effective as conventional pesticides (59% from 52% in 2019). This was reflected in the qualitative research, with many participants expressing a preference for natural alternatives or organic produce, when possible.

## **Knowledge and information sources**

Canadians are slowly becoming more knowledgeable about pesticides, although there is still a way to go. Only 20% of Canadians reported feeling particularly knowledgeable about pesticides in general, and only four in 10 reported feeling adequately informed about pesticides and pest control. In fact, they noted that they are searching for information about pesticides from a variety of sources more than before and are increasingly turning to Internet sources (47%).

Internet search pattern shows that Canadians may not be quite sure where to look for information about pesticides as they predominantly searched on Google (70%) about the topic. The increasing penetration of YouTube and blogs, although not in the top choices as a source of pesticide information, has almost doubled since 2019, also contributes to the perception that Canadians are exploring various sources of information. In the qualitative research, participants also highlighted the importance of including relevant information on product labels themselves to allow them to make informed choices and take necessary steps to safeguard themselves.

Health Canada and Government of Canada websites appeared on a second tier of search tools being used to search about pesticides. Yet after increased popularity from 2016 to 2019, usage of these websites has grown in 2023 (30% and 24% respectively). Nevertheless, when asked, Canadians demonstrated a willingness to seek information on the Government of Canada and Health Canada websites, as many (64% and 72% respectively) say that given the option, they would likely turn to these websites for information about pesticides.

Safety and pesticide potential harms were the main points of information that Canadians would look for when searching about pesticides. The most popular topics for online searches about pesticides would include health, food safety, safe use of pesticides and environmental impacts. In the qualitative research, participants highlighted the importance of including relevant information on product labels to allow them to make informed choices and take necessary steps to safeguard themselves.

When it comes to assessing the risks of pesticides, Canadians would primarily look to health specialists, and understandably farmers, as a group most associated with pesticide use which likely confers a level of expertise. Health Canada scientists, medical doctors and the Canadian Cancer Society are considered the most believable sources (by over two-thirds of Canadians), followed closely by the Royal College of Physicians and Surgeons, university professors and farmers (by about six in 10 Canadians).

## **Understanding of the Regulatory System**

Awareness that Health Canada has a role to play in assessing the safety of pesticides has increased significantly over the past four years. Almost four in 10 (38%) Canadians indicated being aware that Health Canada is responsible for assessing pesticides for safety (up 8 points from 30% in 2019).

The improvement of awareness of Health Canada's role in the regulation of pesticides presents an opportunity to address some of the population's concerns around pesticide safety since health concerns and harm to humans are one of the top negative associations Canadians make with pesticides. The qualitative research found that Health Canada is well placed to undertake this task; many focus group participants identified Health Canada as the organization they would trust to regulate the use of pesticides because of the department's focus on population health. The expectation was for Health Canada to consult widely in their decision-making process and include the expertise of environmental protection agencies and the agricultural sector.

Many Canadians continue to believe that provincial and municipal governments have some responsibility for regulating pesticides, and although this is correct, provinces and municipalities are not responsible for assessing and regulating pesticides before they can be sold or used in Canada. Provinces and municipalities may restrict the use of certain registered pesticides on public and private property, however they may not take any actions that are less protective of health and the environment than those determined by Health Canada. While two-thirds of Canadians (65%) correctly attributed pesticide regulatory responsibilities to the federal government, a considerable proportion indicated the responsibility sits at the provincial level (36%, up 2 percentage points) or municipal level (22%, up 5 percentage points).

### **Confidence in Health Canada (PMRA) to Regulate Pesticides**

The public opinion that Health Canada effectively regulates the use of pesticides has increased over the past four years, particularly among younger Canadians. Confidence in Health Canada to keep food and drinking water safe from pesticide residues has increased significantly (up 7 percentage points from 2019) and six in ten Canadians indicated being confident Health Canada has adequate processes in place to protect the public, up significantly from 53%. More Canadians than before also now agree that Health Canada keeps pace with modern science in its pesticide decisions (60% vs 52% in 2019).

Interestingly, the public's confidence has increased despite the fact that most do not know if the PMRA conducts its own research to test products to verify their effectiveness in controlling pests, or even if products are contaminated. Most commonly, the public believes the PMRA reviews product ingredient data to ensure they are as stated, that products have adequate warnings of the risks and ensures that products and how they are manufactured meet health and environmental standards. This indicates there is still work to be done to improve the public's awareness and understanding of the types of tasks the PMRA undertakes to regulate the availability and safe use of pesticides. The qualitative research found that information about the PMRA's work had a mixed impact: on the one hand, it was comforting to know of the existence of the Agency, yet participants were alarmed to learn about the fifteen-year cycle for re-evaluation of products. The general preference was for more regular monitoring.

Young people are increasingly interested in public consultations on this topic and awareness that Health Canada consults with the public on regulatory decisions regarding pesticides nearly doubled from 12% to 22% over the past four years. The largest increase came from younger Canadians aged 18-34, of whom 34% reported being aware. While this is a large improvement, there is more to be done to increase the public's level of interest in the decision-making process. Those who have participated have found the process to be easy and clear; so hopefully, the PMRA will be able to bring more Canadians into the process. Making it clear that an understanding of the scientific aspects of pesticides is not critical to participate would be a useful next step.

Compared with other survey participants, those who self-identify as Indigenous Canadians expressed less confidence in Health Canada to do a good job protecting human health from the risks of pesticides (59% vs. 67%) as well as protecting the environment (soil, water, air, wildlife, domestic animals (56% vs 62%). Indigenous Canadians who participated in the survey are interested in learning more about both human health and environmental impacts of pesticides equally (68% and 67% respectively), whereas those who don't identify as Indigenous Canadians tend to be more interested in human health impacts (64% compared to 55% for environmental impacts).

## **Transformation Agenda**

The qualitative component of this research examined the perspectives of participants on various transparency initiatives and objectives associated with the Transformation Agenda.

The research found that opportunities lie in improving the usability of the updated Public Registry website. While there was an appreciation of the comprehensiveness of the Registry, participants struggled with the functionality of the website and opportunities were found in simplifying the language used throughout and the structure of the search tools.

The use of an infographic to present information on Maximum Residue Limits (MRLs) was well-received; but, the research found challenges in participants' understanding of the bar graphic used to explain how MRLs are determined.

Participants generally welcomed the newly established Science Advisory Committee on Pest Control Products, with the role of providing independent scientific advice and recommendations to support pesticide-related decision-making. The Committee was seen to align with the broader call for Health Canada to consult widely and draw on the latest scientific evidence.

Finally, participants reacted positively to information about the expansion of the use of real-world data in the regulatory decision-making process. Caution should be exercised when communicating this as a new process as there was an expectation for this to be happening already.

# 1. Introduction

## 1.1 Introduction and Background

The Pest Management Regulatory Agency (PMRA, or Agency) is the branch of Health Canada responsible for regulating pesticides under the authority of the Pest Control Products Act (PCPA). The PMRA's primary mandate is to prevent unacceptable risks to Canadians and the environment from the use of these products.

The PMRA works diligently to make and implement decisions that protect the health and environment of Canadians. The Agency recognizes that an ongoing, more deliberate, and sustained effort towards proactive, open, and transparent engagement with Canadians will help to increase understanding of, and confidence in, PMRA's work. In turn, this will support compliance with the requirements of the PCPA and the broader effectiveness of the PMRA's efforts to protect the health and environment of Canadians.

In 2016, the PMRA developed a Communications and Outreach Strategy with the following desired objectives tied to the views and opinions of Canadians: Canadians are more aware of the pesticide regulatory system, Canadians and stakeholders are more effectively engaged, and Canadians make more informed decisions about the use of pesticides. The Strategy outlined activities in several areas to improve the PMRA's communications with the public.

Ipsos conducted public opinion research – quantitative and qualitative — among a sample of the Canadian general public in 2016 on behalf of the PMRA to establish a baseline of the awareness and opinions of Canadians about the pesticide regulatory system in Canada and assess the key messages and techniques as part of PMRA's five-year Communications and Outreach Strategy. The goal of this research was to support the development of approaches for communications and engagement that are evidence-based and supported by meaningful data – so that resources are directed toward activities that deliver real value to Canadians. In 2019, Ipsos conducted a second round of public opinion research to measure changes since 2016.

Some of the key changes the PMRA implemented towards the desired objectives of the Strategy since 2016 include: improving clarity of communications (such as web content and product labels), publishing summaries and specialized information to help consumers understand proposed major registration decisions including decisions about pest control products that affect a large volume of consumers, publishing and updating education materials for general consumers (such as explanatory videos, web information on particular pesticides such as glyphosate, infographics about pollinator protection, and guidance on personal protective equipment (PPE) for those who work with pesticides). The Communications and Outreach Strategy also focused on developing spokesperson skills among the PMRA scientists so that they can more easily communicate science to the media, and published guidance for agricultural workers related to safety protocols and practices related to pesticide usage.

To keep pace with the evolution of science, the increasing complexity of assessments, and the re-evaluation of older pesticides, the Agency began a major review of its business processes to manage the volume of work involved. In 2018, the PMRA launched a two-year project to explore options for creating a more sustainable program delivery model and enhance health and environmental protection. Based on extensive analysis and information from internal, external and international consultation, an Integrated Approach touching on all business areas was developed. Over the course of 2020, a Program Renewal team engaged with stakeholders representing 141 associations and organizations through 24 sessions held across Canada and virtually.

The feedback from the 2018-2020 Program Renewal consultations with stakeholders, summarized in the 2020 What Was Heard Report, together with extensive staff contributions and input, helped shape the Transformation Agenda, which was established in Fall 2021.

In 2019, the Minister of Health was mandated to work with the support of the Minister of Environment and Climate Change and the Minister of Agriculture and Agri-Food, to ensure that the PMRA makes timely science-based decisions to support the safe and sustainable use of pesticide products in Canada.

In 2021, the [Government of Canada invested \\$42 million over three years in Health Canada's PMRA](#) to further strengthen its human and environmental health and safety oversight and protection, including improving the availability of independent data to further support pesticide review decisions, and the transparency of decision-making. This included undertaking a review of specific provisions of the PCPA.

Strategic objectives of the [Transformation Agenda](#) include:

- strengthening protection of human health and the environment, including wildlife;
- increasing the use of real-world data on water monitoring and pesticide use, as well as independent scientific advice to better inform the PMRA's pesticide decisions;
- a targeted review of the PCPA to ensure it supports transparency and use of independent scientific advice and input in the pesticide decision-making process; and
- enable more meaningful public participation in the regulatory review process involves improving transparency through the following measures:
  - providing information that is written in clear, concise and plain language, to enable Canadians and stakeholders to have informed participation in the process;
  - improving public access to pesticide data and information that form the basis of the PMRA's decisions; and
  - improving web user experience to make it easier to search and find documents related to pesticide regulation, including consultation and decision documents.

This third round of public opinion research was conducted in 2022-2023 to gauge current public opinion compared to previous research results; and, where possible/appropriate, to support key initiatives under the PMRA Transformation initiative announced in 2021. Ultimately, research findings will be used to help improve the nature of communications and engagement with Canadians about pesticides so that they can make more informed decisions about pesticide use, which will prevent incidents of misuse and help protect their health and environment.

## 1.2 Research Objectives

The quantitative research was designed to achieve the following:

- Measure Canadians' awareness of and confidence in Canada's pesticide regulatory system;
- Assess Canadians' opinions about the openness and transparency of Canada's pesticide regulatory system as well as the timeliness of decision-making;
- Assess Canadians' knowledge and opinions about pesticides in general;
- Determine Canadians' current information-seeking behaviours related to pesticides;
- Measure changes from the 2019 survey results, where possible.

The qualitative research was designed to provide a deeper understanding of:

- Canadians' awareness of and confidence in Canada's pesticide regulatory system;
- Reactions to an infographic on Maximum Residue Limits (MRLs) and information on MRL increases for the purposes of food importation;
- Reactions to the new public registry webpage; and,
- Perspectives on PMRA's efforts to broaden sources to support decision-making on pesticides.

### **1.3 Quantitative Methodology**

The quantitative component of the research took the form of a 20-minute online survey, with a national sample of n=2,206 Canadians aged 18 years and older, including a sample boost of n=200 individuals who identify as Indigenous Peoples. The survey was administered using Ipsos' partner Canadian Viewpoint Inc. panel-based resources for data collection. The survey instrument consisted of a series of closed-end and open-end questions designed in consultation with Health Canada. An online pre-test was conducted with 10 English-language completes and 10 French-language completes. Survey fieldwork took place between January 17, 2023 and February 2, 2023. The final survey data were weighted by region, gender, and age to reflect 2021 Census data.

### **1.4 Qualitative Methodology**

The qualitative component of this research took the form of six (6) online focus groups with members of the general population. The qualitative design was national in scope, delivered in both official languages and additional effort was made to include the voices of Indigenous Peoples of Canada. A total of 52 participants took part in the research between February 15 and March 9, 2023. Topline findings from the quantitative phase informed the qualitative discussion guide. It should be noted that the qualitative findings are intended to reveal a range of opinions and interpretations. Qualitative findings should not be extrapolated to the broader population, as they are not statistically projectable.

## **2. Awareness and Impressions of Pesticides**

### **2.1 Section Overview**

Pesticides are a topic Canadians don't often hear about – only 21% of Canadians reported hearing /reading /seeing (a lot or something) about pesticides in the past 3 months. In the qualitative research, there were a handful of mentions of a lawsuit against one pesticide manufacturer. However, increasingly, younger Canadians are taking notice of information and media coverage about pesticides. Compared to 2019, the proportion of Canadians aged 18-34 who recalled hearing, reading, or seeing information or communication about pesticides increased significantly from 22% to 34%. Additionally, compared to four years ago, significantly more respondents aged 18-34 years indicated they feel more adequately informed about pesticides and pest control products (27% to 41%).

Many Canadians continue to hold negative associations with pesticides. In fact, Canadians were almost twice as likely to point out the negatives about pesticides, such as "bad for people" and "bad for the environment" than to mention the positive aspects of pesticides such as "pest/weed control" and "protect crops". Top-of-mind associations among qualitative participants also tended to skew negative. Compared to 2019, more Canadians associated pesticides with "harming the environment, animals, and insects".

## 2.2 Top-of-Mind Thoughts About Pesticides

When asked to indicate what first comes to mind when thinking about pesticides, mentions that involved negative associations outnumbered positive ones nearly 2 to 1 (56% and 27% respectively). The most common negative associations were that pesticides are “bad for people” (17%), “harmful to the environment” (13%), and “harmful to animals, insects, and living organisms” (6%). All these mentions have increased since 2019, suggesting the public has grown more concerned about pesticides than four years ago. Concerns about pesticides being “bad for the environment” has significantly increased among the middle-age group (Canadians aged 35-54 from 8% in 2019 to 13% in 2023).

While Canadians had fewer positive associations to make regarding pesticides, there has been an increase in mentions related to their purpose, value or benefit to Canadians and society as a whole. The most common positive associations were that pesticides can effectively control pests and weeds. Interestingly, over the past four years (between 2019 and 2023) more young Canadians aged 18-34 offer positive associations regarding pesticides (increased from 19% to 37%), primarily mentioning the benefits that pesticides offer.

**Table 1 – Top-of-Mind Thoughts About Pesticides and Pesticide Use**

Associations	2016	2019	2023	Δ (2023-2019)
Negative – Net	49%	53%	56%	+3
Bad for people/ unhealthy/ health issues	12%	15%	17%	+2
Bad/ harmful/ dangerous for the environment	9%	9%	13%	+4
Harmful/ dangerous	7%	9%	9%	0
Toxic	9%	9%	8%	-1
Bad for animals/ insects/ living organisms	4%	4%	6%	+2
Cancer	3%	6%	4%	-2
Pollution/ contamination (water, air, soil, ecosystems)	4%	3%	3%	0
Bad/ not good/ don't like them (unspecified)	4%	3%	3%	0
Damage the food/ pesticides on food/ crops	2%	4%	2%	-2
Killing/ extinction of bees	3%	3%	2%	-1
Safety concerns/ unsafe	1%	1%	2%	+1
Don't use/ avoid them	1%	1%	2%	+1
Overused/ not used properly	2%	3%	1%	-2
Not necessary	0%	0%	1%	+1
Unnatural/ prefer natural/ organic pesticides	-	1%	0%	-1
Other negative mentions	5%	2%	1%	-1
Positive – Net	21%	19%	27%	+8
Pest/ weed control	14%	11%	16%	+5
Necessary/ need to use	4%	3%	5%	+2
Protect crops/ plants/ agricultural product	4%	5%	4%	-1
Helpful/ useful	1%	1%	2%	+1
Good/ not bad/ like them	1%	1%	1%	0
Disease reduction/ kill bacteria	1%	0%	0%	0
Other positive mentions	2%	1%	1%	0

<b>Associations</b>	<b>2016</b>	<b>2019</b>	<b>2023</b>	<b>Δ</b> (2023-2019)
None	5%	5%	4%	-1
Other	4%	1%	1%	0
Don't know	5%	3%	2%	-1

*Survey reference: Q1. What comes to mind when you think about pesticides and pesticide use? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Participants in the qualitative research were similarly asked for their top-of-mind associations to pesticides. In line with the survey findings reported above and previous research on the topic, there was a tendency towards negative connotations. Words such as “poison,” “toxic,” “chemicals,” and “side-effects” were common, and demonstrated an inherent sense of concern related to pesticides. Some participants leaned more towards functionality or types of pesticides in their answers, focusing on words such as “bug killer,” “agriculture,” “farming,” “DDT,” and “neonicotinoid”. These associations were also more neutral in tone. Positive associations were few and far between in the focus groups.

### 2.3 Seen, Read, or Heard About Pesticides Over Last Three Months

The proportion of respondents who recalled seeing, reading, or hearing “a lot/something” about pesticides in the past 3 months was low, but it has increased since 2019 (from 18% to 21%). This increase in recollection over the years can be seen particularly among men (25% vs 19% in 2019), among respondents aged 18-34 (from 22% to 34%) and among those who live in Ontario (from 17% to 22%).

Men were more likely than women to say they’ve seen, read, or heard about pesticides in the last 3 months (25% vs 17% of women) and younger respondents were more likely than older respondents (34% for 18-34, vs 18% for 35-54 vs 13% for 55+).

**Table 2 – Seen, Read, or Heard About Pesticides Over Last Three Months**

<b>Amount of Information Seen, Read or Heard Over the Last Three Months</b>	<b>2016</b>	<b>2019</b>	<b>2023</b>	<b>Δ</b> (2023-2019)
A lot	4%	4%	4%	0
Something	14%	13%	17%	+4
Not too much	34%	31%	32%	+1
Nothing at all	44%	49%	46%	-3
Don't know	4%	3%	1%	-2
<b>Summary</b>				
Top2Box (A Lot/ Something)	17%	18%	21%	+3
Low2Box (Not Too Much/ Nothing at all)	79%	80%	78%	-2

*Survey reference: Q5. Over the last three months, how much have you seen, read or heard about pesticides? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Within the qualitative focus group discussions, there were a handful of references to the class action lawsuit against a pesticide company and the toxic waste burn following a recent train derailment in the USA (although this did not involve pesticides). Most participants could not recall seeing, reading, or hearing about pesticides in the last few months. Quebec focus group participants displayed a heightened sense of awareness of seeing something pesticide-related, but they were unable to recall any specific details on media stories. This is in line with past qualitative research conducted



on the same topic, where Quebec participants tended to come across as more cognizant of media stories on the risks of pesticide use than participants in the rest of the country.

*“In fact, I recently saw a documentary, but it wasn’t in Canada, it was in another country. It made the point about pesticides and their environmental impacts in...a country in Asia? I don’t remember which one, but it’s a documentary I saw recently.” – Quebec focus group participant*

## 3. Perceptions of Pesticides and Personal Use

### 3.1 Section Overview

The understanding that pesticides are “necessary and serve a purpose” resonated with some (53%). This moderate stance regarding the purpose of regular pesticides likely underlies respondents’ preference for homemade/natural alternatives over the use of a registered pesticide (68%) in the survey and in the focus group discussions. Nonetheless, pesticides continue to be predominantly viewed in a negative light. Consistent with this view, perceptions that pesticides cannot be used safely even when instructions are followed persist (62% up 2 percentage points from 2019) and similarly in previous research, respondents were not overly confident that they personally can use pesticides safely (50% vs 49% in 2019). The qualitative research found that much of the concerns related to the unknown long-term effects of the use of pesticides on human health first and foremost, though participants were also quick to point to the potential negative effects on the environment.

It is worth noting that it was evident in the qualitative discussions that beyond the generally negative connotations with pesticides, several participants had not considered the topic of the safety of pesticides in much depth. There was a general assumption that products available for purchase have been appropriately tested and are therefore safe for use.

Concerns around pesticide safety likely discourages their use. Even though there is an improvement in the acceptance of pesticide use in public spaces, around barns, and in imported or exported foods, these ratings remained low (between 44% for imported food and 49% for in and around barns). Only four in 10 agree that the use of pesticides in schools and other public buildings is acceptable (42%). Unsurprisingly, when this was probed on in the qualitative discussions, participants expressed concern about the potential effects on children and pets, along with the perceived lack of control over the situation.

Despite concerns and insecurities around the use of pesticides, more respondents reported using pesticides frequently compared to four years ago (30% vs 26%). This was very much evident in the qualitative research where several participants noted that they turned to pesticides when a need arose; the use of insect repellent during the summer months was the most prevalent case. These findings underscore the importance of increasing communications about the availability of information for the public that can be found on Health Canada’s website.

Perceptions around the safe use of certain types of pesticides (e.g., controlling devices such as mosquito zappers and mouse traps, as well as herbicides, insecticides, rodenticides, fungicides, and material and wood preservatives) have improved, though perceptions around rodenticides still lag behind the other products. More respondents consider that personal insect repellents can be used safely compared to animal repellents to repel nuisance wildlife. In fact, the agreement that animal repellents can be used safely has been decreasing since 2016.

## 3.2 Safety of Pesticide Use and Safe Personal Use of Pesticides

Concerns that pesticides are not safe, even when used as directed, were relatively high (62% vs 60% in 2019). Moreover, respondents were not overly confident in their ability to personally use pesticides safely, if required (50% vs 49%).

**Table 3 – Proportion of Canadians Who Agree With the Following Statements**

Statements	2016	2019	2023	Δ (2023-2019)
I am concerned that pesticides and pest control products, even when used as directed, are not safe	57%	60%	62%	+2
I can use pesticides safely if required	52%	49%	50%	+1

*Survey reference: Q6. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Concerns regarding the safe use of pesticides have not changed, and the pattern in which subgroups react to these statements remained consistent with the pattern observed in the past, with women, particularly older women, and those who live in Quebec, being warier of the use of pesticides and less likely to be able to use it safely compared to their counterparts.

Similarly, the qualitative research found an underlying hesitancy towards personal use of pesticides, with many participants reporting that they try to avoid their use when they can. This approach is consistent with the PMRA’s messaging on [how to use pesticides safely](#), which includes correctly identifying the pest and considering alternative non-chemical control methods before deciding whether pesticides are needed. Hesitancy was underpinned by concerns about the impact of pesticides on human health and on the environment. The primary health concern was respiratory issues and the long-term effects of breathing in air that may be polluted by pesticide use, along with concerns about the potential of pesticides to contribute to cancer. There was a perception that pesticides posed a higher risk for those with pre-existing health conditions. Personal experience with pesticide-related health problems, or knowledge of those who had experienced pesticide-related health problems, tended to exacerbate concern regarding the safety of pesticides. Although overall, those who reported these experiences represented a minority among participants, with most not being personally affected by pesticide-related side effects.

*“The first thing that always comes to mind is cancer, respiratory problems, those sorts of things, or medical concerns that would impact quality of life later. Those are things that as I get older, I’m more and more conscious of.” – Ontario focus group participant*

*“Yeah, I read that was a substance that could accumulate in your body, and in the long-term cause you some harm. I don’t know if it’s cancerous or something bad for your health. Since you’re putting it in your skin, it is in very close contact, so I don’t want something harmful that has this cancer records to be on my skin.” – Prairies and Alberta focus group participant*

Regarding environmental concerns, participants were quick to bring up issues surrounding the potential for pesticide runoff into bodies of water and soil which in turn may impact the health of aquatic ecosystems, local plants, and animals, as well as human health.

*“I live by a lake, so I do agree a lot that... the runoff into the water is very harmful to the ecosystem of lakes.” – Prairies and Alberta focus group participant*

Still, when a pressing need arose, several participants conceded to resorting to pesticides. The most common use cases found were insect repellents and pest control in their homes (e.g., bedbugs and mice). The benefits of eliminating the pests outweighed any safety concerns participants may have had; indeed, it was not always evident the extent to which these participants engaged in a concerns-benefit analysis. A strategy to reduce potential harm was employed instead, which included using smaller amounts or opting to purchase products that have lower concentrations of certain chemicals (e.g., DEET). Habits on considering the information on labels specifically varied; some simply relied on their “common sense” or past behaviours, whereas a few did consider the information on labels for proper use. More broadly, there was a perception that safe personal use of pesticides was largely dependent on proper use and exercising common sense. This was based on the notion that excessive use of anything is bound to cause problems for the user.

*“I do use bug spray, but that’s mostly just in the summertime. And I mean I’m not even using it every day, only if I’m like out camping or something. And of course, I read the label, and I follow exactly what the label says, and I don’t overdo it. But yeah, I would say that’s pretty much the only pesticide that I use personally.” – BC and Territories focus group participant*

*“I live in Ottawa, and because of the nature or whatever ticks are pretty prevalent. It’s getting to the point that ticks, they’re not simply in the woods anymore, they’re making their way into the grass. So, I have a coat that I put on my dog, very important, and it has chemicals in that coat to help any sort of ticks stay away from.” – Indigenous focus group participant*

*“And there’s a point where, you know, everything has to be used cautiously. I still use [brand name of pesticide], I still use bug spray. You know, my choice is do I want to die of a thousand mosquito bites or put a little bit of DEET on... I’m sure if you live somewhere in an environment that it was constant and you’re dipping in the stuff and it’s in your hair and everywhere else, at some point, yeah, you know, there’s a little bit too much. But when these things come out, they come out with sort of the level for the reasonable individual. Any foolish person will abuse it.” – BC and Territories focus group participant*

As noted, only a handful of participants reported personally experiencing adverse effects which were attributed to pesticides. There was one case of a participant who shared that they moved apartments because of residual smell from a pest control company dealing with bedbugs. Other cases related to living in a community where forests have been sprayed (more details provided in section 3.5) and a final case related to adverse effects from eating non-organic foods (more details provided in section 3.5). In none of these cases had participants reported the health effects they had experienced, as they were not aware this was an option.

### **3.3 Safety of Pesticides Used in Canadian Agriculture**

Canadians are not overly trusting in the safety of pesticides used in Canadian agriculture. Forty-five percent of those surveyed indicated pesticides currently used in agriculture in Canada are safe when used as directed, compared to 42% in 2019. Safety impressions improved among those aged 18-34 years old since 2019 (from 43% to 51%). However, impressions were the lowest in Quebec compared to other provinces.

#### **Table 4 – Proportion of Canadians Who Agree With the Following Statements**

Statement	2016	2019	2023	$\Delta$ (2023-2019)
I think pesticides currently used in agriculture in Canada are safe when used as directed	45%	42%	45%	+3

Survey reference: Q6. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

Participants in the qualitative research tended to have mixed feelings about the use of pesticides in Canadian agriculture. On one hand, most participants acknowledged the value of pesticide use in farming, specifically as it relates to the successful production of crops and managing pests that may damage or infect crops. At the same time, participants expressed concerns around the effects on air and water quality, which they felt may result in long-term, negative effects on human health and the environment more broadly.

The intensive use of pesticides in farming and the perception that farmers utilize more aggressive pesticides than what may be available to the general public were the main sources of concern. Concerns were exacerbated for those who lived near or within agricultural communities; these participants wondered about the impact on their personal health in the long run. One participant, who was a farmer, went on to describe the importance of maintaining a balance or compromise when it comes to pesticide use in agriculture, in terms of using pesticides when necessary but not engaging in excessive use that may harm the health of the environment or the community.

*“One of the discussions my wife and I had was actually thinking about moving to Prince Edward Island, because we love the island, we love the people. But because of all the farming that’s going on in such a small area, we actually worried about the actual pesticide runoff that we would be experiencing. I’m not sure if there’s been any studies done where they’ve actually looked at kids growing up in those areas, where the potato farmers are using whatever they’re using on their fields. How does that affect either the respiratory or development of the kids in the future? That’s one of the reasons why we kind of talked about it and said, lots of farming up there, so maybe it’s not a great idea. They do produce fantastic vegetables though, they really do. We were talking about the benefits of pesticides. Benefits directly for the farmers and the produce that they produce is a direct benefit of the pesticides. They can minimize damage from bugs or any kind of disease using pesticides, and it’s a win for the farmers. The long-term effects are always the interesting factor that comes into play by using pesticides. What are those long-term effects? That’s my concern with pesticides.” – Atlantic Canada focus group participant*

*“On a per capita basis, Saskatchewan probably has the highest levels of MS [Multiple sclerosis] in the country. When you ask the experts what is the cause, and you say, is it chemicals, is it environmental, is it this or that? They answer ‘yes’ to all of the questions. It’s a bit of a concern. I have two young girls, they seem to be healthy and fairly happy, and very energetic at this point. I don’t know if that can change in the future. I don’t know if my health will change in the future having farmed when I was younger. Not that we were farmers, but that I assisted friends that had farms and worked on farms. You wear rubber gloves, and you make sure that you’ve got a respirator on, and you want to make sure that there’s some things that you don’t play with. At the time, you don’t think there’s a huge danger because you’re taking precautions. But what’s the long-term effect of those things? I don’t know.” – Indigenous focus group participant*

*“My other concern in farming is that the pesticides leak into the waters, and this may be causing effects in the rivers and growing algae populations, or some side effects in the nature around that. You can regularly see that*

*the fish are dying because some algae are growing, or that some waters have high level of pesticides, or in general chemicals, agrochemicals. And then, that's something that concerns me, especially in the farming because it's an area where the waters go down straight into the ground and the rivers.” – Prairies and Alberta focus group participant*

Despite concerns raised, participants still tended to prefer Canadian-produced foods in comparison to imported produce, alluding to concerns about the strength of pesticides used in other countries (although, this was not necessarily top-of-mind for most participants). Participants had an underlying sense of trust towards the Canadian regulation of pesticides, and assumed that regulatory regimes in other countries may not be as stringent. These views, however, were not reflected in actual behaviours. The perceived higher cost of locally produced foods and the ability to access produce that cannot be grown in Canada (year-round or altogether) resulted in several participants admitting to buying imported foods.

*“When I buy vegetables from the grocery store, I try to buy from local distributors. But in the winter, local distributors just don't have the product. They have to come from somewhere else, and they have to be transported. Bananas are coming from Costa Rica. No bananas are grown in Canada. Are there pesticides in bananas? Probably.” -Atlantic Canada focus group participant*

### 3.4 Pesticides are Necessary and Serve a Purpose

There has been an increasing understanding that pesticides are necessary and serve a purpose, with more than half of respondents who agreed with this sentiment (up 4 percentage points from 2019). This understanding has increased among men (60% vs 55% in 2019), those aged 18-34 (58% vs 50% in 2019) and those who live in BC (59% vs 46% in 2019) since 2019. Perceptions that pesticides serve a purpose were stronger among men, especially younger males, and respondents outside of Quebec and the Atlantic region.

**Table 5 – Proportion of Canadians Who Agree With the Following Statements**

Statement	2016	2019	2023	Δ (2023-2019)
Pesticides are necessary and serve a purpose	51%	49%	53%	+4

*Survey reference: Q6. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don't know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

### 3.5 Natural Alternatives to Conventional / Registered Pesticides

Preference for homemade, natural or organic pest control alternatives compared to registered pesticides was strong, as a large majority (68%) of respondents mentioned they would prefer such products.

Over half of respondents (59%) agree that natural alternatives are as effective as conventional pesticides; and impressions around the effectiveness of natural pesticides have increased 5 percentage points since 2019. Younger Canadians are leaning towards natural alternatives. Significantly more Canadians aged 18-34 as well as those aged 35-54 reported that in their view, there are natural alternatives to pesticides that are as effective as conventional pesticides (60% from 53% in 2019 and 59% from 52% in 2019 respectively).

**Table 6 – Proportion of Canadians Who Agree With the Following Statements**

Statements	2016	2019	2023	Δ (2023-2019)
I would prefer to use a homemade/ natural/ organic pest control option than a registered pesticide	65%	67%	68%	+1
There are natural alternatives to pesticides that are as effective as conventional pesticides	58%	54%	59%	+5

Survey reference: Q6. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

The belief that there are natural alternatives that are as effective as conventional pesticides has increased among men and women (56% vs 50% in 2019 for men and 62% vs 58% in 2019 for women) and among Canadians under 55 years of age (60% vs 53% in 2019 among aged 18-34, and 59% vs 52% in 2019 among aged 35-54). While preference for natural pesticides and perceptions of the effectiveness of natural pesticides were consistent across age groups, these perceptions are impacted by gender, as women were more likely than men to agree with both statements. Preference for natural pesticides also varied across regions and was stronger in Quebec and the Atlantic region compared to other provinces, lowest in Saskatchewan and Manitoba.

Qualitative findings supported this preference for natural or organic pesticide alternatives as found in the survey. Some participants expressed a tendency to use homemade remedies, primarily with vinegar, to control bugs in their garden. Other participants expressed a preference for natural insect repellents rather than those containing pesticides. A few Indigenous participants were particularly vocal on this, albeit not exclusively.

*“I do buy this one thing, it’s called [name of brand], it’s all natural. It protects against ticks. I can’t remember the exact ingredients, but it’s stuff you can find in your own household, more or less, and it works. It’s the only stuff I use” – Indigenous focus group participant*

*“I tend not to use any type of pesticides. I use basic vinegar and water, and it tends to kill most of the little bugs. I feel like if I do spray pesticides on my vegetables, I really have to wash them really, really well. So, I would be afraid to eat the stuff. I try to grow tomatoes last year, and there were a whole bunch of little bugs in it. I was going to buy something, but then I thought, am I going to eat the tomato if I spray all this pesticide? I was a little worried, so I avoided going to the store and tried the natural way just to be safe” – BC and Territories focus group participant*

In terms of fresh produce and foods, most participants noted their preference for organic fruits and vegetables as they perceived these as more natural and better for human health and biodiversity due to the lack of pesticides. In one case, a participant felt the use of pesticides on the produce they were purchasing was affecting their child’s allergies, and thus switched to buying local produce and noticed an immediate difference. As per imported foods, there was a disconnect between attitudes and behaviours. Organic foods were outside the price range of most participants and thus not regularly purchased, especially given the current inflationary context. Washing vegetables thoroughly was a common strategy to alleviate concerns about consuming pesticides.

*“It’s just that food is so expensive right now, and to buy organic sometimes isn’t feasible” – Atlantic Canada focus group participant*

*“It’s interesting, it would be nice if I had the level of income that I could just go out and make a decision to buy something that was grown locally and organic by a farmer close to home.” – Indigenous focus group participant*

*“Because my son who is 14, he has problems with allergies. I find that if I buy it from a certain store or something like that, then his allergies would flare up. When it happened the first few times, I wasn’t able to make a connection on why it’s happening there. But then, when we changed, we started buying local, and he didn’t have that problem or anything like that. But we bought from the store again, and I washed it two or three times, and he did not have that much problem there. So, whatever they put on there, if it’s bothering him, just make sure that it’s nice and clean thoroughly. But in the back of the head, you still have that question like, is it even safe that what we’re eating, and everything like that?” – Atlantic Canada focus group participant*

More broadly, there was a view that further research should be conducted into effective alternatives to reduce our reliance as a society on pesticides. Some participants reiterated their concerns about the unknown longer-term effects of pesticides on the health of humans and the environment, which may result in higher costs for society in the long run.

*“I think more research into what other alternatives that we can do instead of going the chemical route. Because you know, ultimately, it’s the environment, it will come back and bite us in some shape or form. Your fruit may not look so nice, I’m fine with it. The cheapest and the fastest may not necessarily be the best for your body, because you’re putting it into your body and feeding your families, and especially young kids.” – BC and Territories focus group participant*

### 3.6 Acceptable Use of Pesticides

In general, the use of pesticides was found to be more acceptable in residential private properties and on building materials than in public areas, on food, or in the commercial forestry sector. However, there have been increases in the acceptance of pesticides in public green places, in food (import and export), around barns and uses in commercial forestry. Pesticide use in schools and other public buildings was found to be the least acceptable.

**Table 7 – Acceptability of Pesticides/Pest Control Product Use**

Pesticide Application	2016	2019	2023	Δ (2023-2019)
On building materials such as plywood and hardwood flooring	60%	60%	61%	+1
Residential private property, by homeowners	64%	59%	61%	+2
In the commercial forestry sector	53%	51%	56%	+5
In and around barns where agricultural animals are housed, such as poultry houses and cattle barns	48%	45%	49%	+4
Fruits and vegetables, and their products to be sold in Canada or exported	39%	39%	47%	+8
Public green spaces	41%	39%	45%	+6
Food to be imported into Canada	38%	38%	44%	+6
In schools and other public buildings	-	-	42%	na

*Survey reference: Q4. To what extent do you think it is acceptable to use pesticides/pest control products in each of the following areas? Scale: Top-2 box on a 4-point scale including “don’t know,” where top-2 is “very/somewhat acceptable” and low-2 is “not very acceptable/not at all acceptable.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

The broadening of pesticide acceptance has been driven especially by women and by those under the age of 55. Acceptance of most of these uses has increased in Quebec, although Quebec along with the Atlantic region displayed the lowest levels of pesticide acceptance compared to other provinces. Those who identify as Indigenous Peoples of Canada were less likely to accept the use of pesticides in the commercial forestry sector (49% vs 56% non-Indigenous Peoples).

In the qualitative research, it was evident that most participants had not given much thought to the use of pesticides on private residences and did not object to their use. An exception to this was from a participant who expressed concern on the potential risk of their pet walking on lawns that have been sprayed with pesticides.

There was more of a heightened concern around the use of pesticides in public green spaces, especially parks. This was related to a concern for the health and well-being of children and pets who may frequent these spaces. While this made some feel uncomfortable, they felt it to be an issue they had little control over.

*“I don’t feel comfortable around pesticides, although we do encounter them, and you just can’t help it because parks use them, they’re everywhere.” – Ontario focus group participant*

Comfort levels with pest control companies reflected the findings above. It was evident that most had not considered this topic in much detail and that even if they were concerned, there was little they could do about this. Finally, one of the most tangible perceived ways in which personal health had been affected related to the use of pesticides in forestry. A participant from Atlantic Canada directly linked respiratory issues experienced to the spraying of forests to control for spruce budworm.

*“As a child, I lived in another area of Newfoundland, and I was born with respiratory issues. I remember when I was a kid, there was I think spruce budworm, and they did some spraying right around the community where I was living to control the bug. It affected both me and my mom. Both of us had respiratory issues. At the time, I ended up hospitalized for about a week, but I was only probably 10 years old at the time. Ever since then, I’m somewhat concerned about anything with spraying or anything. I’m still gun-shy of being around stuff. I don’t even want to use bug spray in the house, because it seems to negatively affect me. Probably, for people without respiratory issues is fine, but for me and other people with respiratory issues, it’s probably not so good. That’s my take on that.” – Atlantic Canada focus group participant*

### 3.7 Frequency of Personal Use of Pesticides in the Past 12 Months

Three in ten (30%) respondents reported having used a pesticide or a pest control product frequently (often/sometimes) within the past 12 months. This represents a significant increase in the frequency of usage compared to 2019 (26%) and 2016 (27%).

**Table 8 – Proportion of Canadians Who Use Pesticides Frequently or Infrequently**

Frequency of Using Pesticides	2016	2019	2023	Δ (2023-2019)
Frequent use (Often/ Sometimes)	27%	26%	30%	+4
Infrequent use (Rarely/ Never)	72%	72%	69%	-3

*Survey reference: Q3. How frequently within the past 12 months have you used a pesticide or pest control product (such as herbicides, insecticides, fungicides, insect repellants, and rodent traps)? Scale: Top-2 box on a 4-point scale including “don’t know,” where top-2 is “often/sometimes” and low-2 is “rarely/never.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Frequent pesticide usage increased among men (36% vs 31% in 2019) and among those aged 18-34 (37% vs 29% in 2019) and among those aged 35-54 (33% vs 27% in 2019). British Columbia is the province where the report of frequent use of pesticides has increased the most substantially (28% from 18% in 2019).



In 2023, the proportion of those who reported using a pesticide or pest control “often/sometimes” was similar across all provinces, except Quebec (21% in Quebec, vs. a range of 28% to 36% in other provinces). Over three-quarters of the Quebec sample (78%) stated they “rarely” or “never” used pesticides in the past 12 months. Men were more likely than women (36% vs 24% women) to report having used pesticides frequently, and those aged 55 or older were the least likely to report frequent usage (22%) compared to those aged 18-34 and 35-54 years old (37% and 33% respectively).

Frequent usage of pesticides is higher among those who are confident that the PMRA protects health and the environment (36% who use pesticides often or sometimes, compared to 21% among those who are not confident). Confidence is also higher for those who are aware that Health Canada assesses pesticide safety (38% who use pesticides often or sometimes). Those who self-assess as very or somewhat knowledgeable about pesticides are also more likely to use these products often or sometimes (56%).

### 3.8 Safety of Specific Products

In terms of the factors contributing to perceptions of the safety of products, the qualitative research found that participants had an underlying assumption that pesticides available for purchase by the public had been subject to sufficient testing and were deemed to be safe. Qualitative participants displayed a general level of trust toward the existing pesticide regulation, despite knowing very little about it. The restrictive access to harsher pesticides – discussed both in terms of stores “locking up” higher grades of pesticides or the unavailability of pesticides sold in the USA in Canada – was a further contributing factor to the perceived safety of products available.

*“I think I just trust whatever [name of retailer] sells. I feel comfortable with what is on the shelves. I just assume that it’s been tested and that it’s safe for everyone.” – Ontario focus group participant*

The understanding that specific types of pesticides, such as herbicides, insecticides, fungicides, preservatives for materials and wood, algicides and rodenticides, can be used safely has increased compared to four years ago. Nonetheless, Canadians were not overly confident of the safety of these products, as the agreement that these products can be used safely ranges between 59% to 66%. An exception to this pattern was the use of non-chemical insect and rodent control devices, in which three-quarters (76%) agree can be used safely. In addition, more respondents indicated that personal insect repellents for humans could be used safely (65%), compared to animal repellents to repel nuisance wildlife (57%).

**Table 9 – Proportion of Canadians That Agree That These Pesticides Can Be Used Safely**

Types of Pesticides	2016	2019	2023	Δ (2023-2019)
Herbicides, which are used against weeds	53%	48%	61%	+13
Insecticides, which are used against bugs	57%	55%	66%	+11
Fungicides and antimicrobial agents, which are used against fungus and other micro-organisms	58%	54%	62%	+8
Material and wood preservatives, to protect against fungi, insects and marine borers	60%	56%	66%	+10
Rodenticides, which are used against mice and rats	56%	53%	59%	+6
Animal repellents, to repel nuisance wildlife	64%	60%	57%	-3
Insect- and rodent-controlling devices, such as mosquito zappers and mouse traps	78%	75%	76%	+1
Algicides, which can be used to control algae in pools and spas	63%	59%	65%	+6

Types of Pesticides	2016	2019	2023	$\Delta$ (2023-2019)
Personal insect repellents for humans	-	-	65%	na

*Survey reference: Q2. To what extent do you agree that the following pesticides and pest control products can be used safely? Scale: Top-2 box on a 4-point scale including “don’t know,” where top-2 is “strongly/somewhat agree” and low-2 is “somewhat/strongly disagree.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Skepticism about the safe use of these products was more likely to come from Quebec and the Atlantic provinces, where levels of agreement were the lowest. While agreement levels were consistent across the remainder of the provinces for almost all products, Alberta had the highest level of agreement that herbicides and algicides in particular can be used safely (72% and 71% respectively). Men were overall more positive that these products can be used safely than women, and in general, this conviction softened with age, as those 55+ are less likely to agree that these products can be used safely compared to 18-34 year-olds.

## 4. Knowledge and Information Sources

### 4.1 Section Overview

There is a long way to go in raising Canadians' confidence in their knowledge about pesticides. Only four in 10 Canadians reported feeling that they are adequately informed about pesticides and pest control. In fact, they noted that they are searching for information about pesticides from a variety of sources more than before and are increasingly turning to Internet sources (47%).

The Internet search pattern shows that Canadians may not be quite sure where to look for information about pesticides as they predominantly searched on Google (70%). Other websites consulted include pesticide product websites 37%, the Health Canada website 30%, YouTube 25%, the Government of Canada website 24%, environmental groups websites 19%, provincial websites 18%, farming websites 16%, municipal government websites 13%, blogs 13%, Facebook 9%). Although the use of YouTube and blogs have almost doubled since 2019 for accessing pesticide information, these have not yet attained a prominent position among top considered sources.

Health Canada and Government of Canada websites appeared on a second tier of search tools being used to search about pesticides, and use of these websites has grown in 2023 (30% vs 27% in 2020 and 24% in 2016). Nevertheless, Canadians demonstrated a willingness to seek information on the Government of Canada and Health Canada websites, as many say that given the option they would likely turn to these websites for information about pesticides (64% and 72% respectively).

Safety and pesticide potential harms were the main points of information that Canadians would look for when searching about pesticides. The most popular topics for online searches about pesticides would include health, food safety, safe use of pesticides and the environmental impact.

When it comes to assessing the risks of pesticides, Canadians would primarily look up to health specialists and, understandably farmers, as those most associated with pesticides which likely confers a level of expertise. Health Canada scientists, medical doctors, and the Canadian Cancer Society are considered the most believable sources (by

over two-thirds of Canadians), followed closely by the Royal College of Physicians and Surgeons, university professors, and farmers (by about six in 10 Canadians).

## 4.2 Perceived Knowledge and Access to Information

Knowledge of pesticides continues to be low among the broad cross-section of Canadians. Only four in 10 Canadians feel adequately informed about pesticides (38%) and this was a consistent perception across many subgroups, though men continue to be more likely than women to feel they have adequate information about pesticides (43% vs 32% respectively). The persistent lack of confidence among Canadians regarding their sufficient knowledge about pesticides indicates that there is room to improve this perception.

In contrast, Canadians report that they do read pesticide labels; seven in 10 stated that they always read labels when using a pesticide product (72%). This habit was unchanged compared to 2019 and it continues to be particularly more prevalent among older men (81%, men 55+).

**Table 10 – Proportion of Canadians Who Agree With the Following Statements**

Statements	2016	2019	2023	Δ (2023-2019)
I feel I am adequately informed about pesticides and pest control products	37%	32%	38%	+6
When I use a pesticide product, I always read the label	74%	74%	72%	-2
When I need information about pesticides, I am able to get it	64%	59%	61%	+2

*Survey reference: Q6. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

## 4.3 Information Sources Consulted

When given a list of possible sources to search about pesticides, almost half (47%) identified the Internet as a source they have used. The use of the Internet and pest control companies as sources of information about pesticides has gradually increased since 2016. Concomitantly, the proportion of Canadians who do not identify a source they have used has been dropping since 2016.

**Table 11 – Ever Looked for Information on Pesticides From Any of the Following Sources?**

List of Sources Used	2016	2019	2023	Δ (2023-2019)
Have not looked at any of these sources	46%	42%	32%	-10
On the Internet	36%	41%	47%	+6
Hardware store	19%	24%	23%	-1
Garden centre	29%	31%	30%	-1
Pest control company/ pest control operator	10%	12%	17%	+5
A friend	8%	10%	13%	+3
A doctor	4%	4%	8%	+4
Other	1%	2%	0%	-2

*Survey reference: Q20A. Have you ever looked for information on pesticides from any of the following sources? Base: All*

respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

Engagement with one of these information sources was the highest among those 18-34 years olds and decreased among the older groups. In addition, those who live in Manitoba and Quebec were the least likely to have engaged in searching for pesticides information from one of these sources, compared to residents of other parts of Canada.

The proportion of Canadians who say they have not looked at any of these sources has been declining since 2016. This decline indicates an increasing proportion of Canadians are choosing to engage in the search for information on pesticides.

#### 4.4 Internet Information Sources Consulted

Health Canada's work in promoting pesticide information online has shown positive results. The proportion of Canadians who reported the Health Canada website as a search source has increased progressively since 2016, and currently, three in 10 Canadians claimed to have visited the Health Canada website in search of such information (30%). This increase has been consistent across all demographic groups.

Google continues to reign as the most visited online source for searches about pesticides, with seven in 10 Canadians who reported using it for this purpose. Although the use of alternative sites such as YouTube and blogs as a source of pesticide information has increased, driven especially by those aged 18-34 years old, these were still among the least consulted sources.

Interestingly, pesticide product websites were a popular location to search for information and was used by over one-third of Canadians, consistent since the 2016 survey.

**Table 12 – Where They Have Looked for Information About Pesticides on the Internet (among those who searched on the Internet)**

Websites Visited	2016	2019	2023	Δ (2023-2019)
Google	64%	71%	70%	-1
Pesticide product website	38%	38%	37%	-1
Health Canada website	24%	27%	30%	+3
YouTube	7%	14%	25%	+11
Government of Canada website	19%	25%	24%	-1
Environmental groups websites	24%	22%	19%	-3
Provincial government website	-	-	18%	n/a
Farming website	-	-	16%	n/a
Blogs	6%	8%	13%	+5
Municipal government website	11%	12%	13%	+1
Facebook	5%	7%	9%	+2
Other	1%	4%	0%	-4

Survey reference: Q20B. You indicated you have looked for information about pesticides on the Internet. From the following list, please indicate which websites you have visited? Base: All who have looked for information on pesticides on the Internet (at Q20a) 2016 (n=716), 2019 (n=826), 2023 (n=1041).

The predominant use of Google, as well as the increase of alternative search sites like YouTube and blogs, indicates Canadians may not be aware that Health Canada provides information for the general public on its website, or how to navigate to this information on the Canada.ca website.

## 4.5 Likely Information Sources About Pesticides

Another indication that Health Canada efforts are taking effect among the population is that the ratings of the likelihood of using Health Canada’s website for searching information about pesticides have increased since 2016. Currently almost three-quarters (72%) of Canadians reported consulting the Health Canada website. Interestingly, the consideration for the Health Canada website for this type of search dips among those 35-54 years old (66%) and is more predominant among the youngest and oldest age groups (73% among 18-34 year-olds and 76% among 55+).

**Table 13 – Sources Likely to Reference for Information About Pesticides**

Sources Likely to Use	2016	2019	2023	Δ (2023-2019)
Google search	100%	56%	89%	+33
Health Canada website	64%	66%	72%	+6
Pesticide product websites	58%	63%	67%	+4
Home improvement store/garden centre	63%	64%	65%	+1
Government of Canada websites	58%	60%	64%	+4
Environmental groups	43%	44%	59%	+15
Provincial government website	-	-	58%	n/a
A pesticide service provider	45%	50%	55%	+5
Farming website	-	-	53%	n/a
Family and friends	100%	36%	52%	+16
Other Internet/ website mentions	97%	47%	50%	+3
Municipal government website	-	-	49%	n/a
Friend	-	-	43%	n/a
Doctor	-	-	43%	n/a
Social media	-	-	28%	n/a
Blogs	22%	23%	27%	+4
Other (specify)	11%	11%	6%	-5

*Survey reference: Q22. If you were looking for information about pesticides, how likely would you be to consult the following sources? Scale: Top-2 box on a 4-point scale including “don’t know,” where top-2 is “very/somewhat likely” and low-2 is “not very/not at all likely.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Few focus group participants reported proactively searching out information regarding pesticide usage and regulations. The discussions thus focused on participants’ preferences towards pesticide information in an *ideal* world.

In terms of who should have the responsibility for providing information, the preference was for Health Canada and pesticide manufacturers to provide ample and accurate information that is easily accessible. Mentions of Health Canada were partly to counter some mistrust towards pesticide manufacturers. There was general agreement that it was in the interest of both Health Canada and manufacturers to provide accurate information.

In terms of the prioritization of information provided and disseminated, participants identified three areas of importance, being: proper usage, risks, and side effects. Participants were clearly of the mindset that this type of information would assist them in making informed choices, as well as mitigate any potential risk associated with usage.

*“Information that should be mentioned. What are the side effects, if there are any, if there are side effects, and what’s the level of consumption? Again, we come to the residue. That’s the maximum. That thing should be mentioned on if it’s a spray, how much, don’t go over completely, just apply a layer, and you should be fine.” – Ontario focus group participant*

On how information should be provided, the consensus was that details should be included, and clearly indicated, on all product packaging and labels. It was however noted that this information should be presented in a user-friendly way and participants cautioned against text-heavy labels. A handful mentioned that they may use Google for further information.

*“I just feel like something that I’m concerned with, so a yard chemical or something like that, they should have to have it in the packaging, and then that way I have access to it if I want to read it. And of course, if I want to figure out more about it, I can Google it.” – Prairies and Alberta focus group participant*

## 4.6 Pesticide-Related Subject for Online Search

Concerns about the safe use of pesticides and how they impact human health and the environment influence the negative associations surrounding pesticides. Thus, it is no surprise that similar themes would be used as key information sought by those who search for pesticides. Indigenous Peoples of Canada are interested in learning more about both human health and environmental impacts of pesticides equally (68% and 67% respectively), whereas other Canadians tend to be more interested in human health impacts (64% compared to 55% for environmental impacts).

**Table 14 – What Would They Be Most Likely to Search for on the Internet About Pesticides**

Types of Subject for Online Search	2016	2019	2023	Δ (2023-2019)
Health-related information	59%	60%	72%	+12
Food safety	-	-	71%	n/a
Safe use information	65%	64%	69%	+5
Environmental impact information	47%	49%	65%	+16
Water quality	-	-	60%	n/a
How to repel or get rid of pests	55%	57%	58%	+1
Chemical content	37%	43%	55%	+12
Product selection information	37%	37%	41%	+4
How to identify pests	28%	33%	41%	+8
Other	3%	1%	-	n/a
None of the above	1%	1%	1%	0
Don't know	1%	0%	-	n/a

Survey reference: Q21. What kind of information about pesticides would you be most likely to seek? Base: All who have looked for information on pesticides on the Internet (at Q20a) 2016 (n=716), 2019 (n=826), 2023 (n=1041).

## 4.7 Credibility of Information Sources

Health Canada is well-positioned to deliver credible messages about the risks of pesticides to Canadians. Health Canada scientists hold a high level of credibility among the population, with seven in 10 (69%) Canadians who reported that they believe in what they say. Medical doctors and the Canadian Cancer Society share the same level of credibility (68% and 67% respectively) followed closely by the Royal College of Physicians and Surgeons, farmers, and university professors (range between 60% to 64%). A Health Canada spokesperson, and the Health Minister, lag behind these other groups in terms of being believable sources of information about the risks of pesticides (59% and 54% respectively).

**Table 15 – Believability of Sources**

Providers of Information about Pesticides' Risks	2016	2019	2023	Δ (2023-2019)
A Health Canada scientist	63%	69%	69%	0
A medical doctor	57%	65%	68%	+3
Canadian Cancer Society	65%	64%	67%	+3
Royal College of Physicians and Surgeons	65%	62%	64%	+2
Farmer	-	-	61%	n/a
A university professor	40%	55%	60%	+5
A Health Canada spokesperson	54%	56%	59%	+3
Canadian Environmental Law Association	46%	52%	58%	+6
The Health Minister	42%	48%	54%	+6
David Suzuki Foundation	49%	47%	51%	+4
Provincial government	-	-	46%	n/a
Municipal government	-	-	43%	n/a
A pesticide manufacturer spokesperson	13%	17%	26%	+9
Other, specify	-	-	26%	n/a

*Survey reference: Q11. Thinking about the various people or organizations who may provide information about the risks of pesticides, to what extent do you think you can believe what they say? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “believe most of what they say” and 1 is “believe none of what they say.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

## 5. Knowledge of the Pesticide Regulatory System

### 5.1 Section Overview

Awareness that Health Canada has a role to play in assessing the safety of pesticides has increased significantly over the past four years. Almost four in 10 (38%) Canadians indicated being aware that Health Canada is responsible for assessing pesticides for safety (up 8 points from 30% in 2019). While this is an improvement, there continues to be some confusion about who does what when it comes to regulation. In the survey, two-thirds (65%) correctly attributed pesticide regulatory responsibilities to the federal government, and a considerable proportion (36%) indicated the responsibility sits at the provincial level. In addition, the majority (75%) of those who attributed the responsibility to the federal sphere continued to believe that Agriculture and Agri-Food Canada is the federal department that regulates pesticides. In comparison, a slim majority (57%) attributed this role to Health Canada.

The improvement of awareness of Health Canada’s role in the regulation of pesticides presents an opportunity to respond to some of the population’s concerns around pesticide safety as health concerns and harm to humans are one of the top negative associations Canadians make with pesticides. The qualitative research finds that Health Canada is well-placed to undertake this task; many focus group participants identified Health Canada as the organization they would trust to regulate the use of pesticides because of the department’s focus on population health. The expectation was for Health Canada to consult widely in their decision-making process and include the expertise of environmental protection agencies and the agricultural sector.

## 5.2 Level of Knowledge About the Pesticides’ Regulatory Process in Canada

Canadians are slowly becoming more knowledgeable about the pesticide regulatory process in Canada, even though only a few (20%) consider themselves knowledgeable (very/somewhat) on the topic. Younger Canadians between the age of 18-34 years old lead this progress; one-third (33%) of them said they are very or somewhat knowledgeable about this process, compared to 20% in 2019. Improvement in the knowledge score was also observed in Ontario (25% vs 18% in 2019) and in the Atlantic (19% vs 9% in 2019).

**Table 16 – How Knowledgeable About Pesticides’ Regulatory Process in Canada**

Level of Knowledge	2016	2019	2023	Δ (2023-2019)
Very knowledgeable	1%	2%	3%	+1
Somewhat knowledgeable	13%	13%	17%	+4
Not very knowledgeable	45%	44%	46%	+2
Not at all knowledgeable	41%	41%	34%	-7
<b>Summary</b>				
Top2Box (Very/ Somewhat Knowledgeable)	14%	15%	20%	+5
Low2Box (Not Very/ Not at All Knowledgeable)	86%	85%	80%	-5

*Survey reference: Q8. Overall, how knowledgeable are you about the pesticides regulatory process in Canada? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Quebecers were found to be least knowledgeable compared to residents from other provinces. Nine in 10 (90%) of those who reside in Quebec say they are not very or not at all knowledgeable about the pesticide regulatory process in Canada.

## 5.3 Understanding About Regulatory Decision-Making Process

As the level of knowledge about the pesticides regulatory system improves, more Canadians felt that they have a good understanding of the pesticide regulatory decision-making process. Almost two in 10 (18%) Canadians indicated their level of understanding about how regulatory decisions are made as high (fair to high level of understanding), which is a considerable increase compared to the 2019 proportion (12%). Improvement in this score was driven by those who live in Ontario (21% vs 11% in 2019) and those in the Atlantic region (15% vs 5% in 2019). Interestingly, the level of understanding decreased as age increased; those 18-34 years old are almost twice as likely as those aged 35-54 years old and almost three times as much as those 55 or older to rate their level of understanding as high (28%, 18% and 11% per age group respectively).



Despite the large proportion (62%) who rated their understanding of the decision-making process low (“do not understand at all” to “low level of understanding”), these changes indicate that Health Canada is moving in the right direction with increasing openness and transparency of Canada’s pesticide regulatory system.

**Table 17 – Level of Understanding About How Pesticides Regulatory Decisions Are Made**

Level of Understanding	2016	2019	2023	Δ (2023-2019)
7 - High level of understanding	1%	1%	2%	1
6	2%	3%	3%	0
5	8%	8%	12%	4
4	15%	16%	20%	4
3	20%	17%	19%	2
2	20%	21%	17%	-4
1 - Do not understand at all	33%	33%	25%	-8
<b>Summary</b>				
Top3Box (7 High level of understanding, 6, 5)	11%	12%	18%	+6
Low3Box (1 Do not understand at all, 2, 3)	74%	72%	62%	-10

Survey reference: Q10. What is your level of understanding about how pesticide regulatory decisions are made? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

## 5.4 Awareness of Health Canada Risk Assessment

Awareness that Health Canada assesses the safety of pesticides has increased significantly over the past four years. Almost four in 10 (38%) Canadians indicated being aware that Health Canada is responsible for assessing pesticides for safety (up 8 points from 30% in 2019). Awareness has increased the most in Ontario (39% vs 29% in 2019) and in BC (38% vs 25% in 2019).

Younger Canadians of 18-34 years old were the most likely (45%) to be aware Health Canada assesses pesticide safety before deciding whether they can be registered for sale or use, compared to just over two-thirds (36%) of those aged 35-54 and those 55+.

**Table 18 – Agree/Disagree: Health Canada Assesses the Safety of Pesticides Before Deciding Whether They Can Be Registered for Sale and Use in Canada**

Level of Awareness	2016	2019	2023	Δ (2023-2019)
7 - Completely aware	5%	6%	9%	+3
6	8%	7%	10%	+3
5	18%	16%	20%	+4
4	18%	20%	18%	-2
3	12%	12%	11%	-1
2	8%	10%	7%	-3
1 - Not at all aware	24%	22%	20%	-2
Don't know	7%	6%	5%	-1
<b>Summary</b>				

Level of Awareness	2016	2019	2023	Δ (2023-2019)
Top3Box (7. Completely agree, 6, 5)	31%	30%	38%	+8
Low3Box (1. Not at all aware, 2, 3)	44%	44%	38%	-6

Survey reference: Q12. Before today, to what extent were you aware that Health Canada assesses the safety of pesticides before deciding whether they can be registered for sale and use in Canada? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

The qualitative findings painted a partly encouraging picture. Despite underlying concerns about the implications or side effects of pesticide use reported, across all groups there was a general sense of trust in the mechanisms in place to properly regulate pesticide use and protect the safety of the Canadian population and environment. Indeed, there was a view that the alternative would be to live in a state of wariness or paranoia. Health Canada came up unprompted in nearly all discussions as the organization that participants would trust to regulate what pesticides are used in Canada. The presumption was that Health Canada has the interest of the health of the population at heart when evaluating the safety of pesticides.

When asked to evaluate Health Canada’s success in regulating pesticides, the majority of participants rated Health Canada to be doing a “good” or “average job.” For most participants, their sense of trust in Health Canada was tied to an absence of bad news or lack of negative personal experiences regarding pesticide regulation or use. A few participants were more specific in identifying factors that reinforced their sense of trust, with one referring to their detailed regulations, and another referring to the recalling of produce that may be dangerous for consumers. Those holding less positive perceptions of Health Canada’s work in regulating pesticides attributed these perceptions to the perceived lack of public information about this subject; the fact that participants felt uninformed was perceived as evidence of a poor job on Health Canada’s side in keeping the public informed. It was evident throughout discussions that most participants had not considered the regulation of pesticides in much great depth.

*“I did vote for good job. I can’t recall anything where anybody got sick from something that Health Canada said we were okay with. And I’m not talking about potato chips or anything like that. Like I don’t recall any poisonings where they really missed the mark. So, I put good job.” – BC and Territories focus group participant*

*“The fact that we don’t know, the fact that we need more education implies that they’re doing a poor job, in my opinion. I don’t know that much about the safety of pesticides, besides the toxins in them.” – Ontario focus group participant*

## 5.5 Knowledge of What Products are Regulated

Awareness that certain types of pesticides (such as insect repellants) are regulated in Canada has increased. While awareness was fairly consistent across almost all demographic groups, younger Canadians were more aware that ant traps are regulated compared to their older counterparts. Almost half (46%) of those aged 18-34 were aware that ant traps are regulated, compared to 36% of those aged 35-54, and 39% of those aged 55+.

Overall, there is room to improve regulation awareness for most of these products.

### Table 19 – Products Regulated as Pesticides in Canada

<b>Regulated Products</b>	<b>2016</b>	<b>2019</b>	<b>2023</b>	<b>Δ</b> (2023-2019)
Weed killer (herbicides)	51%	51%	54%	+3
Insect repellants/ bug spray	41%	43%	50%	+7
Ant traps (insecticides)	33%	37%	40%	+3
Swimming pool chemicals	31%	33%	36%	+3
Treated wood	30%	31%	30%	-1
Pet flea collars	25%	27%	29%	+2
Bug zapper	16%	19%	23%	+4
Certain ultraviolet (UV) and ozone generating devices	-	-	17%	n/a
None of the above	4%	2%	3%	+1
Don't know	36%	36%	26%	-10

*Survey reference: Q7. To your knowledge, which of the following products, if any, are regulated as pesticides in Canada? Select all that you think apply. Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

## 5.6 Knowledge of Jurisdiction Responsible for Pesticide Regulation

The different roles and responsibilities for pesticides and how this is shared among federal, provincial, and municipal authorities is a source of confusion for Canadians, and although the roles are described on the Health Canada website, it indicates a need for better or more accessible explanation of the distinctions.

Many Canadians continue to believe that provincial and municipal governments have some responsibility for regulating pesticides, and although this is correct, provinces and municipalities are not responsible for assessing and regulating pesticides before they can be sold or used in Canada. Provinces and municipalities may restrict the use of certain registered pesticides on public and private property, however they may not take any actions that are less protective of health and the environment than those determined by Health Canada. While two-thirds of Canadians (65%) correctly attributed pesticide regulatory responsibilities to the federal government, a considerable proportion indicated the responsibility sits at the provincial level (36%, up 2 percentage points) or municipal level (22%, up 5 percentage points). Half of Canadians aged 18-34 (49%) attributed the responsibility of the regulation to the federal government, much lower than those aged 55+ (74%) and those 35-54 years old (66%).

**Table 20 – Level of Government Responsible for Regulating Pesticides in Canada**

<b>Government Levels</b>	<b>2016</b>	<b>2019</b>	<b>2023</b>	<b>Δ</b> (2023-2019)
Federal government	62%	65%	65%	0
Provincial government	34%	34%	36%	+2
Municipal government	20%	17%	22%	+5
Don't know	18%	18%	17%	-1

*Survey reference: Q9A. Which level (or levels) of government do you think are responsible for regulating pesticides in Canada? Federal government, provincial government, municipal government. Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

In addition, the proportion of those who attributed the responsibility of the federal government to Agriculture and Agri-Food Canada remains high (75%). In comparison, a slim majority (57%) attributed this role to Health Canada.

Interestingly, the understanding that Health Canada regulates pesticides was more prevalent in Ontario (64%) compared to other provinces. BC residents were significantly more likely to indicate Agriculture and Agri-Food Canada (81%).

**Table 21 – Federal Government Department Responsible for Regulating Pesticides in Canada**

Federal Department	2016	2019	2023	Δ (2023-2019)
Agriculture and Agri-Food Canada	73%	75%	75%	0
Health Canada	55%	60%	57%	-3
Environment and Climate Change Canada	34%	41%	41%	0
Don't know	9%	7%	6%	-1

*Survey reference: Q9BA. And which federal government department(s) do you think is/are responsible for regulating pesticides in Canada? Base: All who selected federal government (at Q9a) 2016 (n=1257), 2019 (n=1321), 2023 (n=1423).*

The understanding of the entities responsible for pesticide regulation in Canada varies between individuals who self-identify as Indigenous People of Canada and those who do not. Two-thirds of Canadians (including two-thirds of Indigenous Peoples of Canada) correctly identified that the federal government is the level of government responsible for regulating pesticides in Canada. However, more Canadians indicated that Agriculture and Agri-Food Canada is responsible for regulating pesticides (74% of non-Indigenous Canadians and 77% of Indigenous Canadians) than Health Canada (56% of non-Indigenous Canadians). Indigenous Canadians were more likely to be aware that Health Canada is the organization responsible for regulating pesticides than other Canadians (69% vs 56% respectively).

As noted already, in the qualitative discussions it was generally assumed that Health Canada regulated pesticides and more importantly, the department was trusted to do this effectively. There was some debate around the pros and cons of responsibility lying at a federal versus provincial level. On one hand, participants felt that regulation should be consistent across the country, especially when considering the environmental effects of pesticides may be felt across provincial lines. Pesticide regulation at a federal level thus, according to some participants, would ensure consistency across the country, rather than different standards being enforced throughout the provinces. Those who advocated for provincial involvement in the regulatory process also rationalized their views based on the varying provincial interests. These participants felt that because each province may have differing interests and needs, and given the environmental impact of pesticides, they should have the ability to use their own judgement and discretion regarding pesticide regulations. Others still advocated for collaboration between federal and provincial governments, feeling that there should be basic federal standards that all provinces must meet, and aside from meeting those federal standards, they should have discretion over their pesticide regulations.

*“I think there should be an initiative at the federal level to discern what types of chemical products we accept, what the exact effects are, long term, and that the research be continually updated. I also think that it’s important that it also be regulated at a provincial level. Like [focus group participant] said, she trusts someone with experience, but I find that everyone that works with these toxic products daily, in our cities and villages, etc., should regulate and regularly inspect these practices. This is the way I see it.”– Quebec focus group participant*

*“Just because Alberta’s going to have a different view of what’s safe than, oh I don’t know, southern Ontario or some place like that. I think it’s probably up to them to decide what they want in their waters and rivers. And it*

*would be like a public safety from the provincial place that should do that, not a federal thing.” – BC and Territories focus group participant*

More broadly, when focus group participants were asked about who *else* should be involved in the pesticide regulatory processes, there was a consensus that the more voices involved, the better. Participants welcome the involvement of environmental protection agencies as they were seen as an authoritative voice on the effects of pesticides on wildlife and the ecosystem more broadly. The fact that pesticides were heavily used in farming resulted in openness to Health Canada consulting with farmers as well as collaborating with the federal department that oversees agriculture. In terms of public involvement in the regulatory process, views were somewhat mixed. Some participants felt very strongly on the importance of public involvement in the regulatory process, whilst others admitted that they lacked the necessary expertise to offer informed opinions. The latter were more likely to emphasize the importance of engaging scientists in the process instead. Finally, nearly all participants were against the involvement of pesticide companies in the pesticide regulation process, given their “vested interest.” Participants felt that their focus would be on profit and pushing their own agendas, rather than considering the interests of consumers and the environment. Similarly, some expressed similar sentiments about the involvement of Agriculture and Agri-Food Canada, stating that they may have a vested interest in the success of farmers, rather than public safety. Ultimately, participants generally felt that Health Canada should consult widely but have the final say on decision, which was a function of their underlying level of trust towards the organization.

*“I’m not sure that somebody else deciding on our behalf as a government agency really has all of our interests at heart. There may be other factors that we’re not aware of, but I do think that people should be allowed to have input as a democratic society.” – Ontario focus group participant*

*“My concern is, what would that information be based on? The way the world is nowadays, you can find confirmation bias on anything you choose to look for. And so, I would prefer to have a regulatory body that uses science, that uses research, to arrive at a conclusion and to set parameters, as opposed to just being all over the place. This is coming from me as a practical citizen, not as a farmer. I’ve just seen way too many where somebody goes off on a tangent for no clear reason other than the fact that he heard something somewhere online, and runs with it.” – Prairies and Alberta focus group participant*

## **6. Confidence in Health Canada (PMRA) to Regulate Pesticides**

### **6.1 Section Overview**

Public opinion that Health Canada effectively regulates the use of pesticides has increased, particularly among younger Canadians. Confidence in Health Canada to keep food and drinking water safe from pesticide residues has increased significantly (up 7 percentage points from 2019) and six in ten Canadians indicated being confident that Health Canada has adequate processes in place to protect the public, up from 53%. More Canadians also agreed that Health Canada keeps pace with modern science in its pesticide decisions (60% vs 52% in 2019).

Interestingly, the public’s confidence has increased despite the fact that most do not know if the PMRA conducts its own research to test products to verify their effectiveness in controlling pests, or even if products are contaminated. Most commonly, the public believes that the PMRA reviews product ingredient data to ensure they are as stated, that

products have adequate warnings of the risks, and ensures that products and how they are manufactured meet health and environmental standards. The qualitative research found that information about the PMRA’s work had a mixed impact: on one hand, it was comforting to know of the existence of the Agency, yet participants were alarmed to learn about the fifteen-year cycle for re-evaluation of products. The general preference was for more regular monitoring.

Young people are increasingly interested in public consultations on this topic and awareness that Health Canada consults with the public on decisions doubled from 12% to 22% over the past four years. The largest increase came from younger Canadians aged 18-34 of whom 34% reported being aware of public consultations on pesticide decisions.

## 6.2 Awareness of What PMRA Does

Most Canadians had some idea of the PMRA’s mandate or at least could envision key tasks. About six in ten Canadians indicated that the PMRA likely makes sure pesticide products being sold and used in Canada meet health standards and requires warnings on product labels to ensure consumers are informed of the risks of using the product and how to use them safely. Just over half indicated that the PMRA likely requires companies that sell pesticide products to pull them from the shelves if they are deemed unsafe, and a similar proportion indicated that the PMRA likely makes sure pesticide products being sold and used in Canada meet environmental standards and sets safety standards for companies making and handling products. Fewer, just half of Canadians, indicated a belief that the PMRA verifies the ingredients in products as stated on the product and does so on a regular basis while the products are on the market.

Less than half of Canadians indicated a belief that the PMRA conducts its own research to test products, reviews advertising to ensure it is not suggesting misleading information about the product, or assesses products to verify their the effectiveness in controlling pests.

**Table 22 – Tasks Health Canada’s PMRA Is Responsible for With Regard to Pesticides**

Statements	2023
Making sure a product meets health standards	61%
Requiring specific warning statements on product labels so that consumers are aware of specific risks of using the product, and how to prevent them by following the label instructions	58%
Requiring companies that sell pesticide products to pull them from the shelves if Health Canada determines that they are unsafe for use	56%
Making sure a product meets environmental standards	55%
Setting safety standards for companies that manufacture, possess, handle, store, transport, import, distribute, sell or use these products, to follow	54%
Making sure products contain the ingredients they say they do	52%
Reviewing products on the market on an ongoing basis to make sure they continue to meet safety standards	50%
Testing products to ensure they are not contaminated	47%
Reviewing product advertising to ensure it is not misleading	40%
Making sure a product is effective for controlling pests	38%
Don’t know	16%
None of the above	1%

*Survey reference: Q16. Which tasks, if any, do you believe Health Canada’s PMRA is responsible for with regards to pesticides? Base: All respondents 2023 (n=2206). Note: the question was moved up in the 2023 to come before the*

*description of what Health Canada’s PMRA does. Therefore, tracking is not recommended.*

In the qualitative component of this research, participants were presented with a short description of the responsibilities of the PMRA. Some participants felt it is “comforting” to know there was a system and Agency in place, ensuring available pesticides were safe for use and held to a certain standard.

Following the acknowledgement of the value of such an Agency, the attention of participants quickly turned their focus to the re-evaluation cycle for pesticides currently on the market. Specifically, that pesticides on the market are re-evaluated every fifteen (15) years to ensure products are meeting current scientific standards. Nearly all participants felt this cycle was too lengthy to be truly effective, and this aligns with previous qualitative research on this topic. These feelings were based on the notion that much can change in fifteen years and that period could allow for the emergence of harmful side effects of pesticide use. A shorter evaluation cycle, of “one or two years,” was suggested, as well as the provision of details outlining the review process – specifically, any mechanisms that may be in place to address concerns that are brought forth. Following the first two focus groups, as a result of the questions and concerns that emerged, participants were provided with additional information about the re-evaluation cycle, specifically that products are evaluated more frequently than every fifteen (15) years, if warranted. However, participants still raised similar questions, including those around which circumstances would warrant more prompt re-evaluation.

*“In 15 years from now, our kids may develop health issues that we don’t even know about, because we’ve been using the product all this time. It has to be a lot sooner than 15 years, for sure.” – Ontario focus group participant*

*“I’m most concerned by the ‘or less, if needed.’; ‘It’s reevaluated every 15 years or less, if needed.’ What is if needed? Is it when a large group of people die because there is a toxic product in the water? I don’t know. This scares me.” – Quebec focus group participant*

### 6.3 Perceptions of Health Canada’s Effectiveness

Two-thirds (66%) of Canadians reported being confident (very or somewhat) that Health Canada does a good job of protecting human health from the risks of pesticides, and nearly as many (62%) indicated the same about protecting the environment from the risks of pesticides. Canadians in the middle-age groups of 35 to 54 indicated being less confident (60%) than those who are younger (under age 35, 70%) or older (age 55+, 68%), and those living in Quebec (60%) and Atlantic Canada (60%) were less confident than those living in Western Canada (71% in BC and in Alberta and 70% in Saskatchewan and Manitoba) that Health Canada does a good job protecting humans from pesticides. Interestingly, Quebec residents, who are less confident, were more likely to have indicated a belief that Health Canada relies on academic or peer-reviewed studies (55% vs 46% nationally), while BC residents, who are more confident, were more likely to indicate a belief that Health Canada relies on reviews from other internationally recognized regulatory authorities (57% vs 48% among Quebec residents), monitoring data (68% vs 56%) and incident reports (56% vs 44%). Compared with others, Indigenous Peoples of Canada have less confidence in Health Canada to do a good job protecting human health from the risks of pesticides (59% vs 67%) as well as protecting the environment (soil, water, air, wildlife, domestic animals) (56% vs. 62%).

**Table 23 – Confidence That Health Canada Does a Good Job Protecting Humans From Pesticides**

Statements	2023
Very confident	14%
Somewhat confident	52%

Statements	2023
Not very confident	21%
Not at all confident	7%
Don't know	6%
<b>Summary</b>	
Top2Box (Very/Somewhat confident)	66%
Low2Box (Not very/Not at all confident)	28%

*Survey reference: new in 2023 Q14. How confident are you that Health Canada does a good job of protecting human health from the risks of pesticides? Base: All respondents 2023 (n=2206). Note: previously this question combined protecting human health and environment from the risk of pesticides. In 2023, this was separated in Q14 (human health) and Q14a (environment). Therefore, tracking is not comparable.*

**Table 24 – Confidence That Health Canada Does a Good Job Protecting the Environment From Pesticides**

Statements	2023
Very confident	12%
Somewhat confident	50%
Not very confident	23%
Not at all confident	8%
Don't know	7%
<b>Summary</b>	
Top2Box (Very/Somewhat confident)	62%
Low2Box (Not very/Not at all confident)	31%

*Survey reference: new in 2023 Q14A. How confident are you that Health Canada does a good job of protecting the environment (soil, water, air, wildlife, domestic animals) from the risks of pesticides? Base: All respondents 2023 (n=2206).*

Public confidence in Health Canada to keep food and drinking water safe from pesticide residues has increased significantly (up 7 percentage points from 2019). Six in ten Canadians indicated being confident that Health Canada has adequate processes in place to protect the public, up from 53%. Canadians of all ages showed an increased level of confidence, but more so among those aged 18-34 (up 11 percentage points vs. 5 points and 6 points among those aged 35-54 and those aged 55+ respectively). Notably, confidence has increased more among men (up 10 percentage points) than women (up 4 percentage points) since 2019.

Public opinion that Health Canada keeps pace with modern science in its pesticide decisions has also increased – up 8 percentage points. Now six in 10 Canadians agree with this sentiment. The increase has come primarily from men rather than women (10 percentage points and 5 percentage points respectively) and among younger Canadians aged 18-34 (up 13 percentage points).

Nearly two-thirds of Canadians agree that when pesticides pose unacceptable risks, they are removed from the Canadian market (up 3 points from 2019 and 10 points from 2016). Fewer Canadians agreed the Government of Canada acts quickly enough to remove unsafe pesticides from the market – although this is partly attributed to a higher proportion of Canadians indicating that they don't know how quickly the government acts in this circumstance compared with public confidence in keeping food and water safe.

**Table 25 – Agree/Disagree: Confidence in Health Canada (% rating 5-7)**



Statements	2016	2019	2023	Δ (2023-2019)
I am confident that Health Canada has adequate processes in place to keep my food and drinking water safe from pesticide residues	54%	53%	60%	+7
Health Canada keeps pace with modern science in its pesticide decisions	48%	52%	60%	+8
The Government of Canada acts quickly enough to remove unsafe pesticides from the market	40%	44%	49%	+5
When pesticides pose unacceptable risks, they are removed from the Canadian market	53%	60%	63%	+3

Survey reference: Q17. Using a scale from 1 to 7, where 1 is “not at all” and 7 is “completely,” to what extent do you agree with each of the following statements? Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

In the qualitative component of this research, participants were primarily unaware of the PMRA and rather tended to speak about Health Canada more broadly. As already discussed in section 5.4, trust in the existing regulatory system stemmed from the absence of recall of adverse events regarding pesticides as opposed to knowledge of action taken by the PMRA.

## 6.4 Awareness of Information Considered in Regulatory Decisions

Most Canadians had some idea of what information the PMRA uses to make regulatory decisions or at least could envision what information that might be. Six in 10 Canadians (62%) indicated that the PMRA likely makes use of human health and environmental monitoring data, and about half indicated reviewing internationally recognized regulatory authorities and incidence reports.

As noted previously, Quebec residents were more likely to indicate a belief that Health Canada relies on academic or peer-reviewed studies (55% vs 46% nationally), while BC residents, were more likely to indicate a belief that Health Canada relies on reviews from other internationally recognized regulatory authorities (57% vs 48% among Quebec residents), monitoring data (68% vs 56%), and incident reports (56% vs 44%).

**Table 26 –Information Considered in Regulatory Decisions**

Statements	2023
Human health and environmental monitoring data	62%
Reviews from other internationally recognized regulatory authorities	50%
Incident reports	48%
Academic or peer-reviewed studies	46%
Industry-sponsored studies	35%
Industry sector priorities	25%
Public opinion	21%
Don't know	17%
None of the above	3%

Survey reference: new in 2023 Q13 What information do you think Health Canada considers when a pesticide regulatory decision is made? Base: All respondents 2023 (n=2206).

## 6.5 Awareness and Knowledge of the PMRA’s Public Consultation Process

PMRA’s efforts to promote more meaningful public participation in the regulatory review process are paying off. Over the past four years, the number of Canadians who reported being aware that Health Canada consults with the public on decisions doubled from 12% to 22%. The largest increase has come from younger Canadians aged 18-34 of whom 34% reported being aware. This is also the group that is more engaged in consultations with the PMRA. In the survey, 25% of those aged 18-34 who are aware these consultations exist indicated having participated in a Health Canada public consultation about pesticide decisions. This compares to only 18% of those aged 35-54 and 7% of those aged 55+.

**Table 27 – Aware That Health Canada’s PMRA Consults With the Public**

Statements	2016	2019	2023	Δ (2023-2019)
Yes	13%	12%	22%	+10
No	87%	88%	62%	-26
Don't know	-	-	16%	-

*Survey reference: Q18. Were you aware that Health Canada’s PMRA consults with the public on decisions related to pesticides? Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

Among those who participated, most found the experience to be a positive one. Eight in 10 indicated that the information they received was easy to access, easy to understand, and the process to submit comments was clear. Nearly as many indicated that what Health Canada does with their comments was clear. This reflects positively on the PMRA’s goal of making the process more user-friendly for the public.

**Table 28 – Satisfaction With Consultation Process**

Statements	2023
The information was easy to access	84%
The information was easy to understand	80%
The process to submit my comments was clear	85%
What Health Canada does with my comments was clear	79%

*Survey reference: new in 2023 Q18b. You indicated that you have participated in Health Canada’s public consultations about pesticide decisions. In your experience, on a scale from 1 to 7, where 1 is “do not agree at all” and 7 is “completely agree.” Scale: Top-3 box on a 7-point scale including “don’t know,” where 7 is “completely agree” and 1 is “do not agree at all.” Base: All who have participated in a Health Canada’s public consultation about pesticides (n=88).*

In terms of the future, as many as half of all Canadians (50%) indicated they would consider participating in public consultations about pesticide decisions carried out by Health Canada in the future. In fact, only 27% indicated that they are not likely to consider participating in the process; one-quarter said they don’t know if they would. Given the positive experiences of those who have participated previously, the data suggests the process is a good one, and thus the PMRA should focus on building awareness that the public can get involved, explaining why the public should be interested in such decisions in the regulation of these products and that they don’t need to have an understanding of science in order to participate.

**Table 29– Reasons for Not Wanting to Participate in a Health Canada’s Public Consultation About Pesticides**

Statements	2023
Because I don't understand science and wouldn't know how to evaluate the information	38%

Statements	2023
Because I'm not interested	30%
Because I don't have the time	23%
No need, because I trust that Health Canada has made the right decision	19%
Because I assume the process is too complicated	18%
Because I am not aware of when or how to participate	17%
Other	6%
None / Don't know	6%

Survey reference: new in 2023 Q19b. Which of the following best describes why you would not participate? Base: Those who said they would not participate in a Health Canada's Public Consultation about Pesticides (n=598).

## 6.6 Comparison to the European Union

Public opinion on how well Canada's system for regulating pesticides compares with other jurisdictions hasn't changed much over the past four years, but there have been small, incremental increases in confidence that our system is probably at least the same, if not better, than others. When asked to estimate how they think Canada's system for regulating pesticides compared with the European system, a majority of Canadians indicated about the same or better (76%). However, one-quarter (24%) expect that the European system is better, and Canada's system is worse.

Fortunately, Canadians who indicated having greater knowledge of the pesticide regulatory process in Canada were more likely to hold the view that Canada's system is better than that of Europe (27% vs 17%).

**Table 30 – How Canada's Pesticide Regulatory System Compares to the European Union**

Statements	2016	2019	2023	Δ (2023-2019)
Better than	17%	17%	19%	+2
About the same	57%	55%	58%	+3
Worse than	26%	28%	24%	-4

Survey reference: Q15a\_b. [the European Union] Based on your current level of knowledge, how do you think Canada's pesticide regulatory system compares to each of the following? Is Canada's system better, same, or worse than... Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).

Based on their responses, it is likely that most respondents "guesstimated" which system is better, without substantive evidence to back up their response. When respondents are asked for a reason for their belief that Canada's system is worse, nearly four in ten (39%) indicated that 'Europe has a better regulatory system/enforcement'. Other mentions include 'Europe is more environmentally friendly' (9%), and 'Europe is more focused on people/ health/ safety standards' (9%). Those who indicated Canada's system is better mentioned 'Canada has a better regulatory system/enforcement' (17%).

## 6.7 Comparison to the United States (US)

While over the past several years there has been some movement in the public's view of how the Canadian regulation of pesticides compares with the US system, the largest share of this year's respondents indicated a belief that the Canadian system is about the same as the US. Only one in ten estimated that the US is better than Canada's system.

Similar to the comment regarding Europe, it is likely most respondents do not have substantive evidence to support their opinion about whether Canada has a better or worse regulatory system for pesticides than compared with the US. Those who say Canada’s system is better mentioned the ‘US is less regulated/ poor regulatory system/ enforcement’ (17%), and Canada has a ‘better regulatory system/ enforcement’ (15%). When asked why they say Canada’s system is worse, 15% indicated that ‘US has a better regulatory system/ enforcement’

**Table 31 – How Canada’s Pesticide Regulatory System Compares to the United States**

Statements	2016	2019	2023	Δ (2023-2019)
Better than	39%	45%	38%	-7
About the same	50%	49%	54%	+5
Worse than	11%	6%	8%	+2

*Survey reference: Q15a\_a. [the United States] Based on your current level of knowledge, how do you think Canada’s pesticide regulatory system compares to each of the following? Is Canada’s system better, the same, or worse than... Base: All respondents 2016 (n=2015), 2019 (n=2029), 2023 (n=2206).*

## 6.8 Comparison to China

Canadians are much more confident that Canada’s system for regulating pesticides is better than the system in China (63% indicated a view that Canada’s system is better), than they are about comparing our system against that in Europe (19%) or the US (38%). However, confidence that Canada has a better system has softened over the past four years. Given that views of how Canada compares to Europe and the US have not changed much, it is more likely that Canadians think China’s system has gotten better, rather than Canada’s system has gotten worse. Interestingly, Canadians who reported being less knowledgeable about Canada’s regulatory system were more likely to believe that Canada’s system is better than China’s than those who indicated having knowledge of Canada’s system (66% vs 50%). This could suggest there is a bias toward any assumption that China’s system is worse without any evidence or information to support it. The most common response that offered support for the view that Canada’s system is better than China is that it “has poor/ worse/ lack of regulatory systems” (22%). Other mentions include: “China is less concerned about people/ health/ safety standards” (8%), “China has less environmental concerns/ not eco-friendly” (7%).

Demographically, older Canadians aged 55+ are most likely to guess that Canada’s system is better than China’s system (72%) than those who are 35-54 (59%) and 18-34 (55%).

**Table 32 – How Canada’s Pesticide Regulatory System Compares to China**

Statements	2016	2019	2023	Δ (2023-2019)
Better than	-	74%	63%	-9
About the same	-	15%	21%	+6
Worse than	-	11%	16%	+5

*Survey reference: Q15a\_c. [China] Based on your current level of knowledge, how do you think Canada’s pesticide regulatory system compares to each of the following? Is Canada’s system is better, the same, or worse than... Base: All respondents 2019 (n=2029), 2023 (n=2206).*

## 7. Transformation Agenda Objectives

## 7.1 Section Overview

The qualitative component of this research examined the perspectives of participants on various initiatives and objectives associated with the Transformation Agenda, specifically the updated Public Registry website, an infographic outlining Maximum Residue Limits (MRLs), the expansion of the use of real-world data, and the newly established Science Advisory Committee on Pest Control Products.

The research found that opportunities lie in improving the usability of the Public Registry website. While there was an appreciation of the comprehensiveness of the registry, participants struggled with the functionality of the website and opportunities were found in simplifying the language used throughout and the structure of the search tools.

The qualitative findings also identified the scope for improvements in information developed to increase public knowledge about the regulatory process. The use of an infographic to present information on MRLs was well-received but challenges were found in participants' understanding of the bar graphic explaining how MRLs are determined.

Participants in the focus group discussions reacted positively to information about the expansion of real-world data in the regulatory decision-making process. Caution should be exercised when communicating this as a new process as there was an expectation for this to be happening already.

Finally, in addition to greater public consultation on the regulatory process, the qualitative research explored reactions to the newly established Science Advisory Committee on Pest Control Products. Participants generally welcomed the establishment of the Committee as it aligned with the broader call for Health Canada to consult widely and draw on the latest scientific evidence.

## 7.2 Qualitative Reactions to the Public Registry Website

As part of an ongoing effort and commitment towards encouraging transparency and public participation in the pesticide regulatory decision-making processes associated with the Transformation Agenda, Health Canada recently made changes to the Public Registry website. These updates were made with the intent of facilitating easier access to pesticide-related documents, details surrounding specific pesticides, and information regarding changes to the pesticide regulatory process.

This website was shared with participants in the qualitative focus groups to gauge their top-of-mind reactions and identify any pain points. Participants expressed mixed reactions to the updated Public Registry website, acknowledging the importance of and appreciating the accessible and comprehensive pesticide information, while struggling with the functionality of the website itself.

Initial reactions tended to be positive, particularly in terms of the comprehensiveness of the content provided. They felt that all necessary information was provided and emphasized the importance of pesticide information being consolidated in one location, allowing users to make informed choices. Some participants noted that they would be utilizing or further exploring the website in the future.

*“I think it has all the information that you could really want. Like consultations, Maximum Residue Limits, proper product use. Anything you could want, based on their opinion, of course, or their studies, is right there. So, I think it’s a really good idea.” – BC and Territories focus group participant*

*“I’ll be using it, because I’ll be able to search it more and protect myself, along with my family, in what we are either ingesting, spraying, using, or whatever the case is.” – Indigenous focus group participant*

*“I think it’s great. It’s got so much information there. If you want to look into things even more, then there is that option to be able to do that too. I like that it goes into different things like from different countries, and that type of thing. But overall, I think it’s great. I would definitely read it over again, for sure.” – Prairies and Alberta focus group participant*

When the discussion turned to the functionality or user-friendliness of the website, reactions tended to be more negative. Several participants felt overwhelmed by the way in which information was presented. Similarly, some felt that the emphasis on technical information made the website relatively inaccessible for the “layperson,” and rather catered towards those with a background in science who may be more familiar with the type of information provided. Unprompted, a number of participants tried to use the search functionalities offered on the site and struggled with comprehension of the filter options offered. The disclaimer provided at the outset of the search functionalities was a further turn-off.

*“It’s a bit difficult to use. I mean, all I wanted to do was look up an MRL for a certain type of food, almond milk. And you know, go into this complex search, rule number one, rule number two. I need to know the type of chemical, there’s a bunch of, you know, endless list of chemicals. I think they need to give just some common information, common foods, and what the MRL is. I don’t know what chemical they use on almonds. I can’t pick from the list of 200 there, and then hopefully I find the right one and I finally get my answer.” – BC and Territories focus group participant*

*“Once I see 20 links, I’m lost. I’m lost. Like, today we’re all about quick information, like Reels and all that stuff. Reading, I feel like there is too much, and everyone loses interest.” – Quebec focus group participant*

*“I think some of the people mentioned earlier, it’s a little bit impractical for the common consumer to just come through that and actually come away with anything. Some people, it’s like, hey, this is great. I say some people, this is great information, it’s very in-depth, but I just want to know if this strawberry is okay for me to eat. I don’t want to know about all these other, really, really dense information.” – Prairies and Alberta focus group participant*

Negative reactions to the functionality of the webpage resulted in a number of improvements suggested: using less technical terminology; providing information in bite-sized form; and using short videos to present complex information. The qualitative research also found that the [Pesticides in Canada](#) webpage geared to provide members of the public with general information on pesticides may be a good template to follow for the Public Registry. The general information webpage was shown briefly in one of the focus group discussions and reactions were comparatively more positive than those for the Public Registry. The former felt less cluttered, used simpler language, and addressed topics in a way that felt relevant to members of the public.

*“I find this information is a little more applicable to what I’d be concerned with. Pesticides in my backyard, if I had a pool or whatever, the chlorine they’re using, I’d be confident it’d be safe. I find that the graph or picture on the right-hand side gives me confidence that this is a page I want to be at.” – Indigenous focus group participant*

### **7.3 Qualitative Findings on Maximum Residue Limits**

A deeper dive on the Maximum Residue Limits (MRLs) was conducted in the qualitative research. Focus group participants were first asked whether they had heard of MRLs, then they were presented with an infographic developed to increase knowledge on how MRLs are set. Participants were also asked for their reactions on information increasing MRLs in the context of food importation.

When prompted about the MRLs, some participants were able to accurately guess what it was, but only two participants had prior knowledge of it due to past experience with it through their work in agriculture and skincare fields.

Participants were generally receptive to the attempt to provide MRL information via an infographic. Many reported feeling reassured after reviewing the infographic as a result of references to testing conducted and the results of testing and the example given to facilitate a relative understanding of the volume of pesticide residue that must be consumed to be unsafe (carts of apples over a lifetime). Participants felt reassured that there was a system in place ensuring pesticide residue levels were within a safe level for human consumption, with some expressing increased confidence in existing pesticide regulation.

*“I liked it. I’m actually a huge fan of infographics. I understand that consumption of pesticides and stuff like that, even for me, it can be a really deep topic. But then, to have a graph there along with some of the text, it was pretty good. I actually ended up saving the image and I’m like, okay, that’s good to know. I’ll read over it again too.” – Prairies and Alberta focus group participant*

*“The fact that it’s not just rando (sic!) events that let this stuff come in and out of our nation, but again, there’s a regulatory body with highly educated people who are sharing that they’re keeping our food supply safe. That was my takeaway, I felt more confident with the MRL issue, having read and looked at this infographic.”  
–Indigenous focus group participant*

That said, participants had difficulty in deciphering the bar chart provided to help them understand how MRLs are determined. Participants had a hard time describing in their own words what the chart was attempting to communicate. There was only one case where a participant explicitly referred back to the bar chart in the discussion on reactions to a potential increase in MRLs. This participant had a more positive reaction to a potential increase because he recalled how low MRLs were set in relation to what is unsafe to eat.

A few participants expressed a desire for more information, particularly related to the scientific basis and testing for MRLs, and how long-term consumption of pesticide residue is factored in and the provision of more food examples that are part of a typical diet.

*“I want to see exactly how much is coming in. The other thing I would like to see in there for information is, how quick this leaves our system, how quick these pesticides and stuff leave our body. Does it build up each time we eat another fruit? Is it still left behind? I’ll use arsenic for a while. You can have it once, and it’s not going to do [anything], a small dose once. But after time, after time, after time, it becomes poison. That’s what I would like to see, is more information there. How is it leaving our body? How is it passing out? How much is actually regulated in there? What’s the percentage? I’m a numbers girl. I want to see the percentage.” – Atlantic Canada focus group participant*

*“This apple example they gave me was really good, but I wonder if like, broccoli has more pesticides in it and should I have eaten less broccoli? The apples are clearly fine, but I just didn’t know what other, what’s the*

*variation in the Minimal Residue Level on stuff? I just found myself wanting more information after I thought about it for a second.” – BC and Territories focus group participant*

When presented with information about MRL increases in the context of imported foods, participants had primarily negative reactions. They tended to adopt a nationalistic perspective, arguing that other countries should match Canadian standards rather than relaxing our standards. Given their existing concerns about the potential risks and side effects associated with pesticides, the potential for higher levels of pesticides was worrying and believed to bring “more danger.” Additionally, specifically for participants in Quebec, skepticism was related to a sense of distrust that sufficient testing and analysis would be carried out prior to a MRL increase, with a minority of participants going so far as to equate this to a rubber stamp exercise with the default action being to simply increase the MRL.

*“So, this document states that if we import food from other countries that have elevated MRLs, we will increase our own standards so that it becomes acceptable to import them. So, is there anything fixed there or is it just MRLs that are invented?” – Quebec focus group participant*

*“Absolutely concerned, because again, the standards of like, manufacturing safety standards, it’s all basically the same, are different in different countries. More stringent in some, very lax in others. The same you can say for the MRLs. I’d be more concerned if MRLs were increased.” – Atlantic Canada focus group participant*

A minority of participants held a slightly more flexible view, this was based on a desire to get their preferred produce year-round, rather than operating within the seasonal restrictions of Canadian-grown produce. This was also related to a sense of trust in Health Canada, in that any increase would be made with discretion and be deemed an “acceptable risk”. As alluded to already, one participant specifically referenced the MRL infographic, pointing out that the bar graph demonstrated room for a slight increase in pesticides used, while still ensuring the safety of consumers.

*“And after reading that, I sort of reconsidered my thought about whether or not it should ever be increased, but at the end of the day, if it means getting the food or not getting it, I think in certain circumstances, if Health Canada evaluates it and says it’s still acceptable risk, then I would agree that increasing it in certain cases is okay. And again, putting it in perspective, when you talk about whole shopping cart of things, it’s not like you’re going to eat that amount anyway.” – BC and Territories focus group participant*

## **7.4 Qualitative Findings on Real-World Data**

Finally, in the qualitative component of the research, participants were presented with information on Health Canada’s increase of the use of “real-world data” – specifically data on amount, frequency, location, and method – in informing the regulation of pesticides. This effort is part of the PMRA Transformation Agenda to develop more systematic methods to gather pesticide use information and monitoring pesticide levels.

The use of real-world data made intuitive sense for participants. Information outside of strictly scientific literature was reassuring and believed to facilitate greater levels of trust in the existing regulations. There was some surprise from participants that use of data was currently restricted to information coming from incident reports, sales reports, and some limited water monitoring data. In discussing their reactions, it was clear that for some participants, the use of more “real-world data” was an expectation, and something that a handful assumed was already occurring. Ensuring that new data collected informs regulation in a tangible way was emphasised in one of the discussions.



*“I was a little bit surprised that they didn’t have a great source of real data. It sounds like this is something they are implementing recently or something novel. It’s surprising, I would assume they were already dealing with real data. But it’s a good improvement. I hope that they will have some real data to work with. Because when they work with real data, I would trust their regulations even better, even more.” – Atlantic Canada focus group participant*

## **7.5 Qualitative Reactions to the Science Advisory Committee**

In addition to pursuing greater input from the public, the PMRA has established a Science Advisory Committee on Pest Control Products with the role of providing external, independent scientific advice and recommendations to support pesticide-related decision-making. Reactions to the newly established Committee were explored in the qualitative focus group discussions.

Participants expressed predominantly positive reactions to the Science Advisory Committee, especially related to the increased credibility that would accompany the integration of expert opinions into pesticide decision-making. The incorporation of scientific advice provided by experts would allow for more informed, data-based regulations. Additionally, the ability of an independent science advisory committee to provide the necessary “checks and balances” was reassuring for some participants, as it would allow for more effective oversight on pesticide-related decision-making.

*“With anything else, there needs to be checks and balances in place. I don’t expect this committee to be making any final decisions. What they’d be doing is providing input to the people who make decisions, to get more perspectives and hopefully come up with a decision that’s both practical and safe.” – Prairies and Alberta focus group participant*

*“To be honest with you, it does sound like a really good idea, because they consult other scientists across the world, so they can get more and more information. The more data they have, the more easy it would be to work on a certain product. They are just collecting data from what I can understand, they’re trying to collect all the data. And in the end, the decision has to be made by Health Canada. So, it’s kind of like they are getting all the data, providing that information to Health Canada before they can make their decisions. Those people have very good knowledge, and it’s not just the knowledge there, but they are sharing that knowledge and getting consultation from other companies as well across the world. I think that’s better, because the more data that we have, the more easy it would be for decision-making.” – Atlantic Canada focus group participant*

Participants found it hard to comment on what should happen in the event that the Committee arrives at a controversial recommendation or if their recommendation conflicts with that of the PMRA. Sometimes this was a function of the lack of details addressing the makeup of the Committee and the lack of procedural information, particularly as it may relate to the potential conflict of interest. Some participants felt strongly that Health Canada should ultimately have the final say, given their perceived position as a trustworthy and accountable regulatory body. That said, in the interest of transparency, participants expect Health Canada to make the Committee’s reports public and provide a clear rationale when there is divergence in opinion.

*“That’s it, because it expressly states that the committee provides recommendations and opinions. Health Canada reserves the exclusive authority of final decision making in regards to pesticide regulation. So basically what we see here is :‘Hey, I’m the boss.’ or ‘Ah, but because there was a committee with scientists, it was like more lenient.”-Quebec focus group participant*

*“I think if they’re independent and they’re outside of Health Canada, that they might be more objective. But I’d be concerned about whether their findings would be made public, that we would know about them, or is it just an internal thing that’s back and forth between them that Health Canada either agrees or disagrees [with]. Do we find out the results at all?” – Ontario focus group participant*

# Appendix

## Quantitative Survey Methodological Report

Ipsos conducted a 20-minute online survey among a nationwide sample of Canadian adults between January 17 and February 2, 2023. In total, n=2,206 surveys were completed, including a sample boost of n=200 individuals who identify as Indigenous Peoples of Canada. The survey instrument consisted of a series of closed-end and open-end questions designed in consultation with the Health Canada Project Authority. The sample is a non-probability online panel sample. Ipsos partner Canadian Viewpoint Inc. panel-based resource, (which is a diversely-sourced and actively maintained panel of approximately 300,000 active panelists Canadian adults) was used for data collection. The survey instrument consisted of a series of closed-end and open-end questions designed in consultation with the Health Canada Project Authority. An online pre-test was conducted with 10 English language completes and 10 French language completes.

The table below indicates the unweighted geographical distribution of the sample, in counts and proportions. Weighting was applied to the sample to ensure that the final data reflects the adult population of Canada by region, age and gender according to 2021 Census data.

**Table A33 – Sample weighting**

<b>Sample Breakdown</b>	<b>Unweighted Sample Size</b>	<b>Weighted Sample Size</b>	<b>Unweighted Sample Proportions</b>	<b>Weighted Sample Proportions</b>
<b>Canada</b>	2206	2206	100%	100%
<b>Region</b>				
British Columbia/Territories	299	309	14%	14%
Alberta	256	243	12%	11%
Saskatchewan/Manitoba	163	154	7%	7%
Ontario	831	838	38%	38%
Québec	499	507	23%	23%
Atlantic Canada	158	154	7%	7%
<b>Gender and Age</b>				
Male 18 - 24	106	132	5%	6%
Male 25 - 34	168	177	8%	8%
Male 35 - 44	183	176	8%	8%
Male 45 - 54	186	199	8%	9%
Male 55 - 64	186	199	8%	9%
Male 65 - 100	210	221	10%	10%
Female 18 - 24	126	110	6%	5%
Female 25 - 34	192	177	9%	8%
Female 35 - 44	195	176	9%	8%
Female 45 - 54	207	199	9%	9%
Female 55 - 64	202	199	9%	9%
Female 65 - 100	245	243	11%	11%
<b>Indigenous Identity</b>				
Indigenous	207	110	12%	5%

<b>Sample Breakdown</b>	<b>Unweighted Sample Size</b>	<b>Weighted Sample Size</b>	<b>Unweighted Sample Proportions</b>	<b>Weighted Sample Proportions</b>
Non-Indigenous	1936	2096	88%	95%

For this survey, a non-probability sample was used. Therefore, a response rate cannot be calculated.

The following table provides the case dispositions and participation rate for this online survey. The participation rate for this survey was 79.5%, and it is calculated as follows:

**Participation Rate =  $R/(R+IS+U)$ .**

**Table A34 – Participation Rate Calculation**

<b>Disposition</b>	<b>Baseline Survey</b>
Invalid Cases	0
Unresolved (U)	0
In-scope non-responding (IS)	913
Responding units (R)	3,548
Participation Rate	79.5%

Online survey cases can be broken down into four broad categories:

**Invalid Cases**

These can include only clearly invalid cases (for example, invitations mistakenly sent to people who did not qualify for the study, incomplete or missing email addresses in a client-supplied list).

**Unresolved (U)**

These include all the cases where it cannot be established whether the invitation was sent to an eligible or an ineligible respondent or unit (for example, when email invitations bounce back or remain without an answer before the candidate could be qualified).

**In-scope non-responding (IS)**

These include all refusals, either implicit or explicit; all non-contacts and early break-offs of known eligible cases; and other eligible non-respondents (due to illness, leave of absence, vacation or other).

**Responding units (R)**

These include cases who have participated but who were disqualified afterwards (for example, when admissible quotas have been reached). It also includes all completed surveys or partially completed surveys that meet the criteria set by the researcher to be included in the analysis of the data.

Unresolved (U), in-scope (IS), and responding units (R) are all included in the broad category of “potentially eligible” cases. However, invalid cases are not included in the calculation of outcome rates.

For this survey a router was used to screen potential respondents and assign them to one of several surveys. Given this, it is not possible to estimate the number of cases “invited” to participate and whether they were eligible or not. Therefore, it is not possible to estimate the “unresolved” cases. For this survey, responding units is broken out as follows.

**Table A35 – Completions**

<b>Disposition</b>	<b>Baseline Survey</b>
Over quota	1,292
Qualified Completes	2,206
<b>Responding units (R)</b>	<b>3,548</b>

The sample routing technology uses weighted randomization to assign surveys to participants. Upon entry into the system, panelists are checked to ensure they have not exceeded survey participation limits. A list of potential survey matches is determined for each panelist based upon the information we know about them. Panelists may be asked additional screening questions within the system to ensure they meet the project criteria. Priority may be given to surveys that are behind schedule; however, this is kept to a minimum as survey randomization must remain in place as a key element for preventing bias. In this case, limited prioritization was applied during the field window, therefore there is a low chance of sample bias.

## Qualitative Methodology

The qualitative component of this research took the form of six (6) focus groups with members of the general population. As shown in the table below, the qualitative design was national in scope, delivered in both official languages and additional effort was made to include the voices of Indigenous Peoples of Canada. A total of 52 participants took part in the research between February 15 and March 9, 2023.

**Table A36 – Focus groups breakdown**

<b>Group number</b>	<b>Target audience</b>	<b>Language</b>	<b>Number of participants</b>
1	Atlantic Canada residents	English	8
2	Quebec residents	French	7
3	Ontario residents	English	10
4	Alberta and Prairies residents	English	9
5	BC and Territories residents	English	9
6	Indigenous Canadians living across the country	English	9

Focus group participants were recruited according to the Standards for the Conduct of Government of Canada Public Opinion Qualitative Research. All focus groups were conducted online using the Recollective qualitative research platform. The sessions were moderated by qualitative researchers using a discussion guide developed in collaboration with Health Canada. Topline quantitative survey findings informed some of the discussion guide content. A copy of the discussion guide has been appended. The sessions lasted two (2) hours in total and participants were offered an incentive as a ‘thank you’ for their time.

It is important to note that the qualitative findings are intended to reveal a rich range of opinions and interpretations, building upon the quantitative data and findings. Qualitative findings are not statistically projectable, and thus, should not be extrapolated to represent the broader population.

## 2023 Quantitative Survey Instrument

[ENGLISH]

[INTRODUCTION]

This survey is being conducted by Ipsos on behalf of the Government of Canada. This survey will help measure Canadians' awareness and confidence in Canada's pesticide regulatory system.

This survey will take approximately 20 minutes to complete. Your participation in this survey is voluntary. All responses will be kept strictly confidential and will remain anonymous, and the information you provide will be administered according to the requirements of the [Privacy Act](#), the [Personal Information Protection and Electronic Documents Act](#), and the [Access to Information Act](#). Responses are recorded in statistical form only. This survey is registered with the Canadian Research Insights Council's (CRIC) Research Verification Service.

Click here if you wish to verify the authenticity of this survey (20230106-IP457).

Click here if you need an **alternative means of accessing the survey**. [Link to [daniel.kunasingam@ipsos.com](mailto:daniel.kunasingam@ipsos.com)]

Links:

[Privacy Act \(Justice.gc.ca\)](#)

[Personal Information Protection and Electronic Documents Act \(Justice.gc.ca\)](#)

[Access to Information Act \(Justice.gc.ca\)](#)

EN: <https://www.canadianresearchinsightscouncil.ca/rvs/home/>

FR: <https://www.canadianresearchinsightscouncil.ca/rvs/home/?lang=fr>

[PREQUALIFYING QUESTIONS FOR QUOTAS – ASKED BEFORE DIRECTING RESPONDENT TO THE SURVEY]

[Gender]

[SINGLE CODE]

What is your gender?

Female

Male

Other

Prefer not to answer

[Age1a]

[DROP DOWN]

In what year were you born? YEAR OPTIONS OF 1915-2004

[YEAR DROP DOWN]

Prefer not to answer

**[IF PREFERS NOT TO PROVIDE A PRECISE BIRTH YEAR, ASK:]**

**[Age2]**

**[SINGLE CODE]**

Would you be willing to indicate in which of the following age categories you belong?

Younger than 18 [Terminate]

18 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65 to 100+

Prefer not to answer [Terminate]

**[PROV]**

**[SINGLE CODE]**

PROV. What province or territory do you live in?

British Columbia

Alberta

Saskatchewan

Manitoba

Ontario

Quebec

New Brunswick

Nova Scotia

Prince Edward Island

Newfoundland and Labrador

Yukon

Northwest Territories

Nunavut

Prefer not to respond [Terminate]

**[FSA] [NUMERICAL RESPONSE]**

FSA. And what is your postal code?

Prefer not to answer [Terminate]

**[Identity information]**

**[MULTICODE]**

Q25. Do you identify as any of the following? Select all that apply.

Indigenous (First Nations, Inuit, Métis)

A member of an ethno-cultural or a visible minority group (not including Indigenous)

Immigrant and/or born outside of Canada

Person with a disability

2SLGBTQIA+

None of the above exclusive

Prefer not to answer exclusive

**[MAIN QUESTIONNAIRE]**

**[AWARENESS & USE SECTION]**

**[ASK ALL]**

**[OPEN]**

Q1. What comes to mind when you think about pesticides and pesticide use?

**[ASK ALL]**

**[SINGLE CODE]**

Q5. Over the last three months, how much have you seen, read or heard about pesticides?

A lot

Something

Not too much

Nothing at all

Don't know

**[ASK ALL]**

**[SINGLE CODE PER ATTRIBUTE]**

Q6. Using a scale from 1 to 7 where "1" is not at all and "7" is completely, to what extent do you agree with each of the following statements?

**[SCALE]**

7 – Completely agree

1 – Not at all

Don't know

**[STATEMENTS]**

**[RANDOMIZE]**

- a) When I need information about pesticides, I am able to get it
- b) There are natural alternatives to pesticides that are as effective as conventional pesticides
- c) I can use pesticides safely if required
- d) When I use a pesticide product, I always read the label
- e) Pesticides are necessary and serve a purpose
- f) I am concerned that pesticides and pest control products, even when used as directed, are not safe
- g) I feel I am adequately informed about pesticides and pest control products
- h) I think pesticides currently used in agriculture in Canada are safe when used as directed
- i) I would prefer to use a homemade/ natural/ organic pest control option instead of a registered pesticide

**[ASK ALL]**

**[SINGLE CODE PER ATTRIBUTE]**

Q2. To what extent do you agree that the following pesticides and pest control products can be used safely?

**[SCALE]**

Strongly agree

Somewhat agree

Somewhat disagree

Strongly disagree

Don't know



**[STATEMENTS]**

**[RANDOMIZE]**

- a) Herbicides, which are used against weeds
- b) Insecticides, which are used against bugs
- c) Fungicides and antimicrobial agents, which are used against fungus and other micro organisms
- d) Material and wood preservatives, to protect against fungi, insects and marine borers
- e) Rodenticides, which are used against mice and rats
- f) Animal repellents, to repel nuisance wildlife
- g) Personal insect repellents for humans
- h) Insect- and rodent-controlling devices, such as mosquito zappers and mouse traps
- i) Algicides, which can be used to control algae in pools and spas

**[ASK ALL]**

**[SINGLE CODE PER ATTRIBUTE]**

Q4. To what extent do you think it is acceptable to use pesticides/pest control products in each of the following areas?

**[SCALE]**

- Very acceptable
- Somewhat acceptable
- Not very acceptable
- Not at all acceptable
- Don't know

**[RANDOMIZE]**

- a) Residential private property, by homeowners
- b) Public green spaces
- c) In schools and other public buildings
- d) Fruits and vegetables, and their products to be sold in Canada or exported
- e) Food to be imported into Canada
- f) In and around barns where agricultural animals are housed, such as poultry houses and cattle barns
- g) In the commercial forestry sector
- h) On building materials such as plywood and hardwood flooring

**[ASK ALL]**

**[SINGLE CODE]**

Q3. How frequently within the past 12 months have you used a pesticide or pest control product (such as herbicides, insecticides, fungicides, insect repellants and rodent traps)?

- Often
- Sometimes
- Rarely
- Never
- Don't know

**[ASK ALL]**

**[MULTICODE]**

Q7. To your knowledge, which of the following products, if any, are regulated as pesticides in Canada? Select all that you think apply.

**[RANDOMIZE]**

Weed Killer (Herbicides)  
Ant traps (Insecticides)  
Insect repellants/ bug spray  
Swimming pool chemicals  
Pet flea collars  
Treated wood  
Bug zapper  
Certain ultraviolet (UV) and ozone generating devices  
[exclusive] None of the above  
[exclusive] Don't know

**[ASK ALL]**

**[MULTICODE]**

Q9a. Which level (or levels) of government do you think are responsible for regulating pesticides in Canada?

Federal government  
Provincial government  
Municipal government **[SKIP TO Q8] IF ONLY OPTION SELECTED**  
[exclusive] Don't know **[SKIP TO Q8]**

**[ASK ALL WHO SELECT FEDERAL GOVERNMENT OR PROVINCIAL GOVERNMENT AT Q9a]**

**[MULTICODE]**

Q9b. And which **[INSERT RESPONSE FROM Q9a]** department(s) do you think is/are responsible for regulating pesticides in Canada?

Select all that apply.

**[RANDOMIZE]**

**[IF 'FEDERAL' AT Q9a – SHOW:]**

Agriculture and Agri-Food Canada  
Health Canada  
Environment and Climate Change Canada  
[exclusive] Don't know

**[IF 'PROVINCIAL' AT Q9a - SHOW]**

Ministry of Agriculture  
Ministry of Health  
Ministry of the Environment  
[exclusive] Don't know

**ASK ALL**

**[SINGLE CODE]**

Q8. Overall, how knowledgeable are you about the pesticides regulatory process in Canada?

**[SCALE]**

Very knowledgeable  
Somewhat knowledgeable  
Not very knowledgeable

Not at all knowledgeable

**[ASK ALL]**

**[SINGLE CODE]**

Q10. What is your level of understanding about how pesticide regulatory decisions are made?

**[SCALE]**

7 – High level of understanding

1 – Do not understand at all

**[ASK ALL]**

**[SINGLE CODE PER ATTRIBUTE]**

Q11. Thinking about the various people or organizations who may provide information about the risks of pesticides, to what extent do you think you can believe what they say?

**[SCALE]**

7 – Believe most of what they say

1 – Believe none of what they say

Don't know

**[STATEMENTS]**

**[RANDOMIZE]**

- a) Canadian Cancer Society
- b) Royal College of Physicians and Surgeons
- c) David Suzuki Foundation
- d) A university professor
- e) A Pesticide Manufacturer Spokesperson
- f) A medical doctor
- g) A Health Canada Spokesperson
- h) The Health Minister
- i) A Health Canada Scientist
- j) Canadian Environmental Law Association
- k) Provincial government
- l) Municipal government
- m) Farmer
- n) Other (PLEASE SPECIFY)

**[ASK ALL]**

**[SINGLE CODE]**

Q12. Before today, to what extent were you aware that Health Canada assesses the safety of pesticides before deciding whether they can be registered for sale and use in Canada?

**[SCALE]**

7 – Completely aware

1 – Not at all aware

Don't know

**[ASK ALL]**

**[MULTICODE]**

**Q13.** What information do you think Health Canada considers when a pesticide regulatory decision is made? Select all that you think may apply.

Industry-sponsored studies

Public opinion

Academic/Peer-reviewed studies

Reviews from other internationally recognized regulatory authorities

Human health and environmental monitoring data

Incident reports

Industry sector priorities

[exclusive] None of the above

[exclusive] Don't know

**[HEALTH CANADA INVOLVEMENT SECTION]**

**[ASK ALL]**

**[MULTICODE]**

**Q16.** Which tasks, if any, do you believe Health Canada is responsible for with regards to pesticides?

Select all that apply.

**[RANDOMIZE]**

- a) Making sure a product is effective for controlling pests
- b) Making sure a product meets health standards
- c) Making sure a product meets environmental standards
- d) Requiring specific warning statements on product labels so that consumers are aware of specific risks of using the product, and how to prevent them by following the label instructions
- e) Setting safety standards for companies that manufacture, possess, handle, store, transport, import, distribute, sell or use these products, to follow
- f) Making sure products contain the ingredients they say they do
- g) Requiring companies that sell pesticide products to pull them from the shelves if Health Canada determines that they are unsafe for use
- h) Testing products to ensure they are not contaminated
- i) Reviewing products on the market on an ongoing basis to make sure they continue to meet safety standards
- j) Reviewing product advertising to ensure it is not misleading
- k) [exclusive] None of the above
- l) [exclusive] Don't know

**[PREAMBLE]**

The Health Canada Pest Management Regulatory Agency (the PMRA) is responsible for pesticide regulation in Canada. Pesticides are stringently regulated in Canada to ensure they pose minimal risk to human health and the environment. Under authority of the Pest Control Products Act, Health Canada:

- registers pesticides after a stringent, science-based evaluation that ensures any risks are acceptable.
- re-evaluates the pesticides currently on the market on a 15-year cycle to ensure the products meet current scientific standards; and
- promotes sustainable pest management

**[rotate order of Q14 and Q14A]**

**[ASK ALL]**

**[SINGLE CODE]**

Q14. How confident are you that Health Canada does a good job of protecting human health from the risks of pesticides?

Very confident  
Somewhat confident  
Not very confident  
Not at all confident  
Don't know

**[ASK ALL]**

**[SINGLE CODE]**

Q14A. How confident are you that Health Canada does a good job of protecting the environment (soil, water, air, wildlife, domestic animals) from the risks of pesticides?

Very confident  
Somewhat confident  
Not very confident  
Not at all confident  
Don't know

**[ASK ALL]**

**[SINGLE CODE PER ATTRIBUTE]**

Q17. Using a scale from 1 to 7 where "1" is not at all and "7" is completely, to what extent do you agree with each of the following statements?

**[SCALE]**

7 – Completely agree  
1 – Not at all  
Don't know

**[STATEMENTS]**

**[RANDOMIZE]**

- a) I am confident that Health Canada has adequate processes in place to keep my food and drinking water safe from pesticide residues
- b) The Government of Canada acts quickly enough to remove unsafe pesticides from the market
- c) When pesticides pose unacceptable risks they are removed from the Canadian market
- d) Health Canada keeps pace with modern science in its pesticide decisions

**[ASK ALL]**

**[SINGLE CODE]**

Q15A. Based on your current level of knowledge, how do you think Canada's pesticide regulatory system compares to each of the following? Is Canada's system...

**[SCALE]**

Better than  
Same as

Worse than

**[COUNTRIES]**

**[RANDOMIZE]**

United States  
European Union  
China

**[ASK IF 'BETTER THAN' AT LEAST ONE COUNTRY at Q15A] SHOW COUNTRY ONLY IF Q15A = "Better than"**

**[OPEN]**

Q15B. Why do you say that Canada's pesticide regulatory system is better than [INSERT COUNTRY]?

[INSERT COUNTRY NAME] [TEXT BOX]

[INSERT COUNTRY NAME] [TEXT BOX]

[INSERT COUNTRY NAME] [TEXT BOX]

**[ASK IF 'WORSE THAN' AT LEAST ONE COUNTRY at Q15A]**

**[OPEN]**

Q15C. Why do you say that Canada's pesticide regulatory system is worse than [INSERT]?

[INSERT COUNTRY NAME] [TEXT BOX]

[INSERT COUNTRY NAME] [TEXT BOX]

[INSERT COUNTRY NAME] [TEXT BOX]

**[ASK ALL]**

**[SINGLE CODE]**

Q18. Were you aware that Health Canada consults with the public on decisions related to pesticides?

Yes

No

Don't know

**[ASK IF 'YES' SELECTED AT Q18]**

Q18a. Have you ever participated in Health Canada's public consultations about pesticide decisions?

Yes

No

Don't know

**[ASK IF 'YES' SELECTED AT Q18a]**

Q18b. You indicated that you have participated in Health Canada's public consultations about pesticide decisions. In your experience, on a scale from 1 to 7 where "1" is not at all and "7" is completely:

**[SCALE]**

7 – Completely agree

1 – Not at all

**[STATEMENTS]**

**[RANDOMIZE]**

The information was easy to access

The information was easy to understand

The process to submit my comments was clear

What Health Canada does with my comments was clear

**[ASK TO ALL]**

**[SINGLE CODE]**

Q19. Would you consider participating in public consultations about pesticide decisions carried out by Health Canada in the future?

Yes

No

Don't know

**[ASK IF 'NO' SELECTED AT Q19]**

**[MULTICODE]**

Q19b. Which of the following best describes why you would not participate? Select all that apply.

**[RANDOMIZE ORDER]**

Because I don't understand science and wouldn't know how to evaluate the information

Because I am not aware of when or how to participate

Because I assume the process is too complicated

Because I don't have the time

Because I'm not interested

No need, because I trust that Health Canada has made the right decision

Other [Anchor]

[exclusive] None/Don't know

**[ASK ALL]**

**[MULTICODE]**

Q21. What kind of information about pesticides would you be most likely to seek? Select all that apply.

**[RANDOMIZE]**

Health related information

Environmental impact information

Chemical content

Safe-use information

Product selection information

How to identify pests

How to repel or get rid of pests

Water quality

Food safety

None of the above exclusive

**[INFORMATION SECTION]**

**[ASK ALL]**

**[MULTICODE]**

Q20a. Have you ever looked for information on pesticides from any of the following sources? Select all that apply.

**[RANDOMIZE]**

On the Internet **[GO TO Q20b]**

Hardware store

Garden centre

Pest Control Company/ Pest Control Operator

A friend

A doctor

Other (specify)

None of the above exclusive

**[ASK ALL WHO LOOKED FOR INFO ON INTERNET AT Q20a]**

**[MULTICODE]**

Q20b. You indicated you have looked for information about pesticides on the Internet. From the following list, please indicate which websites you have visited? Select all that apply.

**[RANDOMIZE]**

Google

YouTube

Facebook

Blogs

Government of Canada Website

Health Canada Website

Provincial government website

Municipal government website

Pesticide product website

Farming website

Environmental groups' websites

Other (specify)

**[ASK ALL]**

**[MULTICODE]**

Q22. If you were looking for information about pesticides, how likely would you be to consult the following sources?

**[SCALE]**

Very likely

Somewhat likely

Not very likely

Not at all likely

Don't know

**[RANDOMIZE]**

Government of Canada website

Health Canada website

Provincial government website



Municipal government website  
Pesticide product websites  
Blogs  
Environmental groups  
Farming website  
Home improvement store/garden centre  
A pesticide service provider  
Friend  
Doctor  
Social media  
Other (specify)

**[DEMOGRAPHICS SECTION]**

**The last few questions are strictly for statistical purposes. All of your answers are completely confidential.**

**[ASK ALL]**

**[SINGLE CODE]**

Q23. Would you describe the area you live in as rural, urban or suburban?

Rural  
Urban  
Suburban  
Don't know  
Prefer not to answer

**[SINGLE CODE]**

Q24. Do you live on a Reserve?

Yes  
No  
Prefer not to answer

**[Education]**

**[SINGLE CODE]**

Q26. What is the highest level of formal education that you have completed?

Less than a High School diploma or equivalent  
High School diploma or equivalent  
Registered Apprenticeship or other trades certificate or diploma  
College, CEGEP or other non-university certificate or diploma  
University certificate or diploma below bachelor's level  
Bachelor's degree  
Postgraduate degree above bachelor's level  
Prefer not to answer

**[Language Spoken at Home]**

**[MULTICODE]**

Q27. What language do you speak most often at home? [Accept all that apply]

English  
French  
Other, please specify  
Prefer not to answer exclusive

**[Employment Status]**

**[SINGLE CODE]**

Q28. Which of the following categories best describes your current employment status?

Working full-time, that is, 35 or more hours per week  
Working part-time, that is, less than 35 hours per week  
Self-employed  
Unemployed, but looking for work  
A student attending school full-time  
Retired  
Not in the workforce (full-time homemaker, unemployed, not looking for work)  
Other **[DO NOT SPECIFY]**  
Prefer not to answer

**[Household Income]**

**[SINGLE CODE]**

Q29. Which of the following categories best describes your total household income last year, before taxes from all sources for all household members?

Under \$20,000  
\$20,000 to just under \$40,000  
\$40,000 to just under \$60,000  
\$60,000 to just under \$80,000  
\$80,000 to just under \$100,000  
\$100,000 to just under \$150,000  
\$150,000 and above  
Prefer not to answer

## 2023 Qualitative Recruitment Screener

### INTRODUCTION

Hello (Bonjour), my name is \_\_\_\_\_. I'm calling from Ipsos, a national marketing research organization. First off, let me assure you that we are not trying to sell you anything. We are a professional public opinion research firm that gathers opinions from people. From time to time, we solicit opinions by talking with people in a group discussion setting with up to 10 participants.

We are preparing to conduct a series of these discussions on behalf of the Government of Canada about issues that are important to Canadians and would like to know if you would be willing to participate.

Please be assured, your participation is voluntary and all comments that you share will only be used for research purposes and handled according to the Privacy Act of Canada. No one outside of the research team will have access to your personal information and the information you provide will never be used to follow-up with you in any way.

The discussions would be an hour and a half to two hours, led by a research professional and conducted using a virtual meeting platform. A video recording of the session will be produced for research purposes. This will be used only by the research professionals to assist in preparing a final report on the research findings.

Do you currently reside in Canada?

Yes	CONTINUE
No	<b>THANK &amp; TERMINATE</b>

As part of these discussions, you will be asked to review and provide feedback on materials and policies in a group setting. You will receive a \$175 FOR INDIGENOUS GROUP/\$125 FOR OTHER GROUPS honorarium as a thank-you for your time. Would you be interested in participating in this discussion?

Yes	CONTINUE
No	<b>THANK &amp; TERMINATE</b>

\*IF ASKED:

The personal information you provide is protected in accordance with the Privacy Act and is being collected under the authority of section 4 of the Department of Health Act. The information you provide will not be linked with your name on any document including the consent form or the discussion form. In addition to protecting your personal information, the Privacy Act gives you the right to request access to and correction of your personal information. You also have the right to file a complaint with the Office of the Privacy Commissioner if you feel your personal information has been handled improperly. For more information about these rights, or about our privacy practices, please contact Health Canada's Privacy Coordinator at 613-948-1219 or [privacy-vie.privee@hc-sc.gc.ca](mailto:privacy-vie.privee@hc-sc.gc.ca).

#### MRIA STANDARDS SCREENER

The following questions will help us determine whether or not you qualify for the discussion.

1. Do you or does anyone in your household work or volunteer in the following industries...?

Market Research or Marketing	Yes	No	<b>IF YES OR DON'T KNOW TO ANY, THANK &amp; TERMINATE</b>
Public Relations or Media (TV, Print, Radio, Film/video production)	Yes	No	
Advertising and communications	Yes	No	
Environmental or health-related NGO	Yes	No	
A pesticide or chemical company	Yes	No	
An employee of a political party	Yes	No	
An employee of a government department or agency	Yes	No	

2. Have you ever attended a consumer group discussion, completed an interview or a survey which was arranged in advance and for which you received a sum of money?

Yes	<b>MIN OF 2 PER GROUP WHO SAY NO</b>
No	

**[IF Q2 = YES, ASK Q3-5, OTHERWISE SKIP TO Q6]**

3. How many focus groups have you attended in the past five years?

1-4	CONTINUE
4+	<b>THANK &amp; TERMINATE</b>

4. What were the main topics of these discussions?

WRITE IN: _____	<b>[IF RELATED TO PESTICIDES, THANK AND TERMINATE]</b>
-----------------	--

4. Have you attended a discussion group or a market research focus group in the past six months?

Yes	<b>THANK &amp; TERMINATE</b>
No	CONTINUE

**STUDY SPECIFIC SCREENER**

5. Are you a citizen or permanent resident of Canada, or are you living here temporarily, for example, are you here on a work visa or on another temporary basis?

Citizen/Permanent Resident	CONTINUE
Temporary Resident	<b>THANK AND TERMINATE</b>

6. What region of Canada do you reside in?

British Columbia	<b>RECRUIT ACCORDINGLY FOR RESPECTIVE REGIONAL GROUPS</b>
The Territories	
The Prairies	
Ontario	<b>RECRUIT A MIX FOR NATIONAL INDIGENOUS GROUP</b>
Quebec	
Atlantic Canada	

7. Which city/town do you live in?

WRITE IN: _____	<b>CHECK GEOGRAPHICAL RESTRICTIONS FOR EACH REGIONAL GROUP IN SPECIFICATION TABLE. URBAN POPULATION CENTRE = 100,000 OR MORE PEOPLE, MEDIUM CENTRE = 30,000 TO 99,999 PEOPLE, SMALL CENTRE = 29,999 OR LESS PEOPLE.</b>
-----------------	---

8. I am going to read you a series of age categories, please stop me when I get to the one that applies to you.

**[ENSURE GOOD MIX IN NATIONAL INDIGENOUS GROUP]**

Less than 18 years old	<b>THANK &amp; TERMINATE</b>
18-34 years	<b>MIN 2 PER REGIONAL GROUP</b>
35-44 years	<b>MIN 2 PER REGIONAL GROUP</b>
45-54 years	<b>MIN 2 PER REGIONAL GROUP</b>
55-64 years	<b>MIN 2 PER REGIONAL GROUP</b>
65+ years	<b>MIN 2 PER REGIONAL GROUP</b>

9. Which gender do you identify with?

Male	
Female	
Non-binary	

Gender fluid	<b>ENSURE GOOD MIX OF MALE/FEMALE, DO NOT TERMINATE OTHER GENDERS PER GROUP</b>
Prefer to self describe (WRITE IN): _____	

10. Do you consider yourself to be a member of the 2SLGBTQQIA+community? [IF NEEDED: 2SLGBTQQIA+stands for lesbian, gay, bi-sexual, transgender, queer or questioning, intersex, asexual, or two spirit and additional sexual orientations, gender identities and commonly used terms to better understand yourself and those around you.]

Yes	<b>RECRUIT 2 FOR QS, ON, BC/TERRITORIES GROUPS, DO NOT TERMINATE FOR OTHER GROUPS</b>
No	CONTINUE

{IF YES TO Q11, ASK Q12. OTHERWISE SKIP TO Q13.}

11. Which of the following do you most identify with?

Lesbian
Gay
Bisexual
Transgender
Queer
Questioning
Intersex
Asexual
Two spirit
Prefer to self-describe WRITE IN: _____

12. Do you identify as Indigenous? This includes First Nations, Metis, Inuit, with or without status?

Yes – First Nations	<b>RECRUIT FOR NATIONAL INDIGENOUS GROUP AIM FOR GOOD MIX</b>
Yes – Métis	
Yes – Inuk	
Yes – Other (PLEASE DESCRIBE)	
Yes – Don't know	
No	CONTINUE
Prefer not to say	CONTINUE

[IF YES TO Q13, SKIP TO Q15. ASK EVERYONE ELSE Q14]

13. Which of the following ethnic or cultural groups do you MOST identify with?

Arab (e.g., Syrian, Egyptian, Yemeni)	<b>RECRUIT 3 PER REGIONAL GROUP AIM FOR GOOD MIX</b>
Asian – East (e.g., Chinese, Korean, Japanese)	
Asian – South-East (e.g., Vietnamese, Filipino)	
Asian – South (e.g., East Indian, Pakistani, Sri Lankan)	
Asian – West (e.g., Iranian, Afghan, Turkish)	

Black – Caribbean and Latin American (e.g. Jamaican)	CONTINUE
Black – African (e.g., Ghanaian, Ethiopian, Nigerian)	
Latin American (e.g., Brazilian, Mexican)	
White (e.g., European – English, Ukrainian, French)	
Prefer to self describe (WRITE IN): _____	
Don't know	

14. What is the highest level of education you have attained? (DO NOT READ LIST)

Some high school or less	<b>DO NOT READ LIST – ENSURE A GOOD MIX IN EACH GROUP</b>
Completed high school	
Post-secondary technical training	
Some college/university	
Completed college/university	
Post-graduate studies	

15. What is your current employment status?

Working full-time	<b>MAX OF 3 NOT WORKING FT OR PT IN EACH GROUP</b>
Working part-time	
Self-employed	
Retired	
Unemployed	
Student	
Other (WRITE IN): _____	

16. What was your household's income, before taxes, in 2022? Was it...?

\$19,999 or less	<b>ENSURE A GOOD MIX IN EACH GROUP</b>
Between \$20,001 and \$39,999	
Between \$40,000 and \$59,999	
Between \$60,00 and \$79,999	
Between \$80,00 and \$99,999	
\$100,000 and above	

17. Do you have any children under the age of 18 that live with you at least some of the time?

Yes	<b>RECRUIT 3 PER REGIONAL GROUP</b>
No	CONTINUE

18. Do you consider yourself to have a disability or other long-term condition?

Examples of disabilities or conditions include:

- Visual
- Hearing
- Physical or mobility (difficulty waking up, using stairs, using their hands or fingers or doing other physical activities)
- Neurodiverse condition (e.g., Attention-Deficit / Hyperactivity Disorder (ADHD), Autism, Dyspraxia, Dyslexia, Tourette Syndrome and others)
- Mental health conditions (e.g., anxiety, depression, bipolar disorder, substance abuse, etc.)

- OR another health or long-term condition that is expected to last for six months or more

Yes	<b>RECRUIT AT LEAST ONE FOR EACH REGIONAL GROUP</b>
No	CONTINUE
Don't know	CONTINUE
Prefer not to say	CONTINUE

**{IF YES TO Q19, ASK Q20, OTHERWISE CONTINUE TO CONFIRMATION SECTION}**

20. Do you require any accommodations to participate in this discussion?

Yes	<b>PLEASE ELABORATE</b>
No	CONTINUE

**CONFIRMATION**

21. Participants in discussion groups are asked to voice their opinions and thoughts. How comfortable are you in voicing your opinions in front of others? Are you... (READ LIST)

Very comfortable	MINIMUM 4 PER GROUP
Somewhat comfortable	CONTINUE
Comfortable	CONTINUE
Not very comfortable	<b>THANK &amp; TERMINATE</b>
Very uncomfortable	<b>THANK &amp; TERMINATE</b>
I don't know	<b>THANK &amp; TERMINATE</b>

22. Sometimes participants are asked to read text and/or review images during the discussion. Is there any reason why you could not participate?

Yes	<b>THANK &amp; TERMINATE</b>
No	CONTINUE
I don't know	<b>THANK &amp; TERMINATE</b>

**TERMINATE IF RESPONDENT OFFERS ANY REASON FOR NOT BEING ABLE TO COMMUNICATE EFFECTIVELY OR TAKE PART IN THE DISCUSSION IN ANY WAY, SUCH AS SIGHT OR HEARING PROBLEM, A WRITTEN OR VERBAL LANGUAGE PROBLEM.**

**ALSO TERMINATE IF YOU HAVE ANY CONCERNS ABOUT PARTICIPANTS ABILITY TO BE UNDERSTOOD IN THE LANGUAGE TO BE USED DURING SESSION.**

23. Do you have access to a computer or laptop at home or work, which you would be able to use to participate in an online discussion group? Please note that the platform is NOT compatible with smartphones or tablets.

Yes	CONTINUE
No	<b>THANK &amp; TERMINATE</b>

24. Do you have access to high-speed internet at home or work, which you would be able to use to participate in the online discussion group?

Yes	CONTINUE
No	<b>THANK &amp; TERMINATE</b>

25. Does your computer/laptop have a working webcam that you can use for the session?

Yes	CONTINUE
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No	<b>THANK &amp; TERMINATE</b>
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\*\*\*\*(FOR EACH LOCATION, PLEASE ENSURE 10 PARTICIPANTS ARE RECRUITED FOR 8-10 TO SHOW) \*\*\*\*

[Read to Stand-by Respondents]

Thank you for answering my questions. Unfortunately, at this time, the group you qualify for is full. We would like to place you on our stand-by list. This means that if there is an opening in the group, we would then call you back and see if you are available to attend the group. May I please have a daytime contact number, an evening contact number an email address, if you have one, so that we can contact you as soon as possible if an opening become available? [RECORD CONTACT INFO]

[Read to Screened in Respondents]

Thank you for taking the time to complete these questions – you qualify to take place in one of these group discussions which will take place on, (DATE @ TIME)

To recap:

- This research involves participating in a focus group, you will be required to contribute approx. 1.5-2 hours of your time
- The Government of Canada is sponsoring this research. An incentive of \$175 FOR INDIGENOUS GROUP/\$125 FOR OTHER GROUPS) will be offered to everyone that qualifies and who contributes to the research. This will be paid to you at the end of the fieldwork period.
- You will require access to a computer/laptop with a camera and a stable internet connection
- Are you still happy to participate in this research?
- Confirm acceptance of this: **YES – continue. NO – thank & terminate.**

Please note that any photos or videos shared by you may be collated for the final reporting on this project and may be used by our end client within their organization and in presentations to their clients. Your name would not be included in this report. All information gathered during this project is used for research purposes only unless stated otherwise. Are you still happy to participate in this research?

- Confirm acceptance of this: **YES – continue. NO – thank & terminate.**

So that we can send you out an email confirmation of this research may we please check the following details for you?

Full Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ (h) \_\_\_\_\_ (m)

Email: \_\_\_\_\_

As we are only inviting a small number of people, your participation is very important to us. As we have invited you to participate based on the questions we went through a moment ago, we ask that you do not send a representative on your behalf should you be unable to participate. IF FOR SOME REASON YOU ARE UNABLE TO ATTEND, PLEASE CALL SO THAT WE MAY GET SOMEONE TO REPLACE YOU. You can reach us at 1-xxx-xxx-xxxx at our office. Someone will call you the day before to remind you about the discussion.

## 2023 Qualitative Discussion Guide

### INTRODUCTION

Introduce moderator and welcome participants to the focus group.



As we indicated during the recruiting process, we are conducting focus group discussions on behalf of the Government of Canada. For this evening's discussion, we are particularly interested in your views about pesticides and pest control products that are sold and used in Canada.

The discussion will last approximately 2 hours. Feel free to excuse yourself during the session if necessary.

Explanations re:

- Audio/video-taping – The session is being video/audio-taped for analysis purposes, in case we need to double-check the proceedings against our notes. These video-tapes remain in our possession and will not be released to anyone without written consent from all participants.
- Confidentiality – Please note that anything you say during these groups will be held in the strictest confidence. We do not attribute comments to specific people. Our report summarizes the findings from the groups but does not mention anyone by name. The report can be accessed through the Library of Parliament or Archives Canada or via the web site [www.porr-rrop.gc.ca](http://www.porr-rrop.gc.ca).
- Client viewing – Observers are watching the sessions live because they are really interested in your opinions.

Describe how a discussion group functions:

- Discussion groups are designed to stimulate an open and honest discussion. My role as a moderator is to guide the discussion and encourage everyone to participate. Another function of the moderator is to ensure that the discussion stays on topic.
- Your role is to answer questions and voice your opinions. We are looking for minority as well as majority opinion in a focus group, so don't hold back if you have a comment even if you feel your opinion may be different from others in the group. There may or may not be others who share your point of view. Everyone's opinion is important and should be respected.
- I would also like to stress that there are no right or wrong answers. We are simply looking for your opinions and attitudes. It was not a prerequisite coming into the group that you be an authority on health issues. This is not a test of your knowledge.
- Please note that the moderator is not an employee of the Government of Canada and may not be able to answer some of your questions.

(Moderator introduces herself/himself). Participants should introduce themselves, using their first names only: Please tell us a little bit about yourself – your work, family situation or hobbies – anything you would like to share with the rest of the group.

## **WARM-UP**

DIGITAL FLIPCHART. The topic for tonight's discussion is pesticides. What's the first thing that comes to mind when you think of pesticides?

MODERATOR TO RECORD TOP-OF-MIND ANSWERS AND PROBE: What made you think of that?

Have you seen or heard anything in the news about pesticides? What have you seen/heard and where? How did it make you feel? Do you recall seeing anything on social media? Facebook? Twitter? Other?

## **BROAD PUBLIC SAFETY CONCERNS AND PERCEPTIONS OF THE CURRENT REGULATORY SYSTEM**

The purpose of tonight is to have an in-depth conversation about pesticides. Here are some examples of pesticides that are available for use in Canada. Please keep these examples in mind throughout tonight's discussion. SHOW EXAMPLES ON SCREEN (Provided by the PMRA)

Do you feel that pesticides used in Canada are generally safe or not? Why/why not?

Do you feel that there are benefits to the use of pesticides? Why/why not?

Do you personally use pesticides? If you do...

- What products do you use?
- Are you comfortable using pesticides yourself?
- What precautions do you consider when you use them?
- When you purchase or use a pesticide, how carefully do you read the label? Do you trust that what is included on the label is accurate? Do you trust that if you follow the instructions you will not be putting your health or the health of those around you at risk?
- Have you or your family been directly affected in some way by an issue related to pesticide safety? How did you/they deal with this situation? What are/were the risks associated with these products? And, do you feel the risk is significant, moderate or minor? What was the outcome? Were you aware that you can report incidents? I'm trying to get a sense for how serious you think this is?

To what extent, if at all, are you comfortable with farmers using pesticides on food crops, in animal barns, on livestock or where feed is stored? What makes you say that?

Are you comfortable with farmers in other countries using pesticides on food that is imported into Canada?

What about licensed professionals such as lawn care and pest control companies? Are you comfortable with these professionals using pesticides in and around buildings like apartment buildings and public buildings? How come?

Are there certain pesticides that you personally are particularly concerned about?

### **Awareness of and Views of Government**

Who should be responsible for deciding what pesticides are available in Canada and how they can be used?

Who would you trust the most to regulate pesticides in Canada?

How much of a say should the public, companies or other organizations have in deciding what pesticides are available in Canada and how they can be used? Probe for: Public? Pesticide Industry? Farmers? Academia? Environmental protection organizations?

SHOW ON SCREEN:

The Health Canada Pest Management Regulatory Agency (the PMRA) is responsible for pesticide regulation in Canada.

Pesticides are stringently regulated in Canada to ensure they pose minimal risk to human health and the environment. Under authority of the *Pest Control Products Act*, Health Canada:

- registers pesticides after a stringent, science-based evaluation that ensures any risks are acceptable;
- re-evaluates the pesticides currently on the market on a 15-year cycle – or sooner if warranted - to ensure the products meet current scientific standards; and
- promotes sustainable pest management.

Health Canada also promotes and verifies compliance with the Act and enforces situations of non-compliance warranting action.

PROBES: What are your thoughts about this? Did anything stand out in a positive or negative way? Are you surprised it's Health Canada that is responsible for regulating pesticides in Canada? Did you think possibly another department did this?

POLLING QUESTION: And, on balance, how good a job is government doing with respect to ensuring the safety of products that Canadians have available to them? ANSWER OPTIONS: Good job, Average job, Poor job, Don't know

- For those who say they do a "good" job: Why do you say that?
- For those who say they do an "average" or "poor" job: Why do you say that? What more should they be doing?
- For those who say "don't know": What information would convince you that they are doing a good job?

## **MRL MESSAGING**

REACTIONS TO MRL INFOGRAPHIC // 15 MINS

My next set of questions are about something called the Maximum Residue Limit, also referred to as MRL, and food. What is your best guess about what is meant by a pesticide Maximum Residue Limit or MRL?

The following infographic was developed to help people understand how pesticide MRLs are determined in Canada. SHOW INFOGRAPHIC.

# Maximum residue limits (MRLs) in Canada



Health Canada's scientists carefully review a wide variety of scientific data and information to set pesticide food safety standards to keep us healthy. Our scientists keep you safe by setting the maximum amount of pesticide residue that could be found on or in the food we eat. Pesticides help protect crops from weeds, fungi, insects and a changing climate.



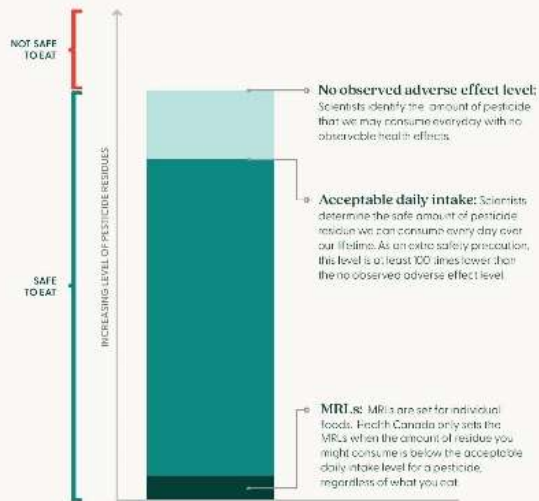
## What is an MRL?

A maximum residue limit (MRL) is the maximum amount of pesticide residue that may remain on or in food when a pesticide is used properly. MRLs are legal and enforceable limits. Typically the actual amount of pesticide residue on your food will be lower than the MRL.



## How are MRLs determined?

When determining a safe residue level for food, Health Canada's scientists consider information from many scientific studies before they set residue limits. Our scientists pay attention to the wide variety of foods that we eat every day and over our lifetime.



MRLs can change over time, but they must always protect our health. The residues consumed from all sources must be below the acceptable daily intake level.

An adult would have to eat almost one shopping cart of apples that contain the maximum amount of pesticide residues every day for their lifetime to consume enough pesticide for there to be a health concern.



257 apples for an adult man and 328 apples for an adult woman based on the highest registered MRL for apples.

However, the realistic amount of pesticide residue on foods is much lower than the MRL, so in reality you would have to eat even more for this to be a concern!



## How do I know the food I'm eating is safe?

The Canadian Food Inspection Agency (CFIA) has an ongoing program of testing foods to determine pesticide residue levels. Year after year, the results show the majority of fresh fruits and vegetables tested have no pesticide residue or have levels below the set MRLs.

### FRUITS AND VEGETABLES WITH PESTICIDE RESIDUE LEVELS BELOW SET MRLs



FOOD GROWN IN CANADA



FOOD GROWN OUTSIDE CANADA

Based on the 2018-2019 report for the National Chemical Residue Monitoring Program and Chemistry Food Safety oversight program.

Any food found with pesticide residue levels above the legal limit undergoes an investigation, and CFIA takes the appropriate action to keep us safe.

For more information visit [Canada.ca/MRLs](https://Canada.ca/MRLs)



What are your thoughts on the definition of what an MRL is? Is the definition of an MRL different from what you expected? How does the second paragraph influence your confidence related to how Canada regulates MRLs?

After reading the description of how MRLs are determined, is anything unclear? Is there anything you like or dislike about this description?

In the next section, on “How do I know the food I’m eating is safe?” is there anything that is unclear? Is there anything you like or dislike about this description?

What is your biggest takeaway from this infographic?

POLLING QUESTION: Using the scale below, how does the infographic affect your confidence related to how Canada regulates MRLs and the safety of the food you eat? ANSWER OPTIONS: More confident than before, No change from before, Less confident than before. PROBE FOR REASONS BEHIND ANSWERS

Do you have any suggestions on what other information would be useful to include in the MRL infographic, especially in terms of improving your confidence in how Canada regulates MRLs?

## **REACTIONS TO MRL INCREASES FOR IMPORTATION**

What do you think it would mean if a pesticide Maximum Residue Limit, or MRL, were increased?

I’d like to talk about MRLs in relation to foods grown in other countries and imported to Canada.

SHOW ON SCREEN:

Importation is an important source of food to ensure Canada’s food security, especially during winter months. Since other countries have different climates and pest pressures than Canada, pesticides and how they are used may also be different. This means that MRLs in other countries may sometimes be different (lower or higher) than in Canada.

This could lead to Health Canada receiving an application to change or amend an established MRL to allow for the import of a food. Scientists at Health Canada would then assess the health risks of the MRL change to ensure it continues to meet Canadian requirements for human health protection. Canadian and imported foods must comply with the same MRL requirements.

PROBES:

Based on what you have just heard, how concerned would you be to learn that a Canadian MRL could be increased to match an international MRL?

Does this change your understanding of what an increased MRL would mean?

Do you have any outstanding questions or concerns about the impacts of increasing MRLs in Canada?

## **TRANSPARENCY AND AVAILABILITY OF INFORMATION**

IDEAL INFORMATION STRATEGY

Moving on slightly, have you ever looked for information on pesticides? Where did you seek this information?

DIGITAL FLIPCHART EXERCISE: As a group, I'd like you to come up with how information on pesticides should be provided to Canadians.

(WHO). In your opinion, who/what organization is most responsible for providing you with this type of information? Should it be the government? Pesticide companies? Retailers? What organizations would you trust to provide you information via social media? Government? Pesticide companies? Retailers? Environmental groups? Which ones?

(WHAT) Ok – let's quickly pull together a list of what types of information MUST be made available. So, if we had to prioritize the types of pesticide related information we need, what kinds of things would be at the top of the list?

(WHERE/ HOW) OK there are many ways to disseminate information – some are better than others depending on what it is you are trying to communicate. Where do you think this information should be made available? When thinking about pesticides specifically, are there certain ways of informing you that you think might work better than others? Help me understand your perspective here.

#### PUBLIC REGISTRY UPDATES

Health Canada has recently updated its website to make it easier for people to find documents and see what is new in the pesticide regulatory process, including public consultation and decision documents. These changes are part of an ongoing commitment to improve transparency and encourage public participation in the pesticide regulatory decision process. I'd like to share with you the various types of information available. MODERATOR TO VISIT WEBSITE AND POINT OUT VARIOUS CATEGORIES. LINK ALSO TO BE SHARED WITH PARTICIPANTS AND THEY WILL BE GIVEN 3-5 MINS TO QUICKLY EXPLORE FOR TOP-OF-MIND REACTIONS

<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/public/protecting-your-health-environment/public-registry.html>

#### PROBES:

POLLING QUESTION: Now that you have seen an overview of what type of information is available, on a scale of 1 to 5, how likely are you to consult this information? ANSWER OPTIONS 1- not at all likely, 2, 3, 4, 5 – very likely. If so, why? If not, why not?

Have you accessed this type of information in the past? If so, how often? What was your purpose in accessing this information?

What do you like about the page? Is there anything you find confusing? Is there anything you would suggest be improved?

Do these efforts to improve usability make you any more likely to consult this information? What other usability features may encourage you to use this information?

#### INDEPENDENT ADVICE AND REAL-WORLD DATA

## SHOW ON SCREEN:

When evaluating the health and environmental risks of pesticides, Health Canada scientists rely on data from a variety of sources, including published scientific literature, scientific information from pesticide registrants, pesticide users, other federal and provincial departments, and other pesticide regulatory bodies around the world.

Health Canada has recently taken steps to broaden the sources of independent advice and information to support decision-making on pesticides.

### Independent advice

The Science Advisory Committee on Pest Control Products was established to provide independent scientific advice to support decision-making. Many other pesticide regulatory bodies worldwide also consult external expertise to help inform their decisions.

This Committee reviews scientific information on certain proposed pesticide decisions and other science questions unrelated to specific pesticide decisions. Committee members have expertise in a broad range of scientific disciplines, are based in Canada, and must conform to Health Canada's Policy on External Advisory Bodies. Although the Committee provides advice and recommendations, Health Canada maintains the sole authority to make final regulatory decisions on pesticides.

### Real-world data

Once a pesticide is registered and in use in Canada, more information becomes available on how the pesticide is actually being used – such as how much, how often, where, and using what method. We refer to this as 'real world' data. Real world data helps information regulatory decisions with more detailed information that can refine the uses of pesticides.

Currently, 'real world' information on pesticides comes from incident reports, sales reports, and some available water monitoring data. Health Canada is developing more systematic approaches for the gathering of information about pesticide use, and monitoring pesticides in water, along with federal, provincial and territorial partners, and stakeholders.

## PROBES:

What's your reaction to this external advisory body? Can you think of any benefits to having such an advisory body? Any concerns?

If you knew the Committee had provided advice on a controversial pesticide decision or arrived at a different conclusion than that of Health Canada, would it make you feel more or less confident in the decision?

What else might you want to know about the external advisory body?

And, what's your reaction to the information on real-world data? What stood out for you and why? Were you surprised by anything you read here?

Does this information make you feel more or less confident in the government's approach to regulating pesticides?  
What makes you say that? PROBE SPECIFICALLY IF THERE WAS AN ASSUMPTION THAT THIS WAS HAPPENING ALREADY.

**WRAP-UP**

What other information do you need/want Health Canada to provide about what we have discussed this evening? Why is this information important to you? How should this information be provided to you?

That is all the time we have this evening but before we wrap things up do you have any final comments?