# 3.6 Sustainable supply chains | Focus on food safety

Food safety is foundational to a sustainable food system. Responsibility for food safety spans supply chain players, including food production, processing, wholesale, transportation, and food retail (food service, restaurants, and grocery). As well, governments at all levels (municipal, provincial, and federal) play a key role to ensure food safety and protect consumers. These combined efforts by industry and government, by extension, help to affirm Canada's safe food brand.

The Index addresses food safety under the banner of Food Integrity, which includes a suite of 12 diverse metrics. While food safety cannot be taken for granted, results from the Index show that Canada's food supply is safe, as evidenced by compliance with government regulatory requirements.

## Results from the Index: Food Integrity Indicators

To protect public health, food safety practices rely on the prevention of food hazards (biological, chemical and physical) using recognized quality assurance systems. Samples are regularly taken to ensure compliance with standards and regulations in force such as MRLs: maximum residue limits, or the maximum amount of pesticide, chemical, or drug residue that can remain in or on food or animal feed products without causing harm to human health. Efficient traceability processes enable recalls throughout the supply chain. Moreover, food safety regimes worldwide and in Canada rely on government reporting of industry compliance. The Index reflects key results based on these approaches:

- The Product Content Compliance Indicator is a key metric used by the Canadian Food Inspection Agency (CFIA) to inform Canadians about the safety of the country's food supply:
  - CFIA sampling reports that in 2020-21, 98.4% of tested foods were safe and accurately represented (2020-21).
- Other metrics show the sector's compliance with maximum residue limits (MRLs):
  - 98.5% compliance with pesticide MRLs for fruits and vegetables produced in Canada (2018-19).
  - 97.7% compliance with veterinary drug MRLs for meat produced in Canada (2018-19).
- In 2020-21, 100% of high-risk recalls were issued within 24 hours.
- The *Safe Food for Canadians Regulations* (SFCR) require preventative control plans (PCPs) to be implemented in some food establishments to document how food-related hazards are addressed.

Food safety cannot be taken for granted. Incidents will happen but how such occurrences are contained when they do occur is vital. Adherence to robust standards based on scientific principles, inspection and surveillance practices, and continuous improvement underpin food safety.

## Interpreting the results

### Maximum residue limits

MRLs are set for pesticides, chemicals, and drugs, and are set low to ensure there is no risk to food safety. The presence of residues above the MRL does not necessarily indicate there is a risk to human health.

In 2018-19, nearly 120,000 tests for potential chemical hazards were performed on approximately 16,000 monitoring samples by the CFIA's National Chemical Residue Monitoring Program. The compliance rates of MRLs for pesticides in domestically produced fruits and vegetables was 98.5% (2018-19) and 97.7% for veterinary drugs in meat (See Figure 1).

**Compliance rates for maximum residue limits in food produced in Canada, 2018-19 (excludes imports)**

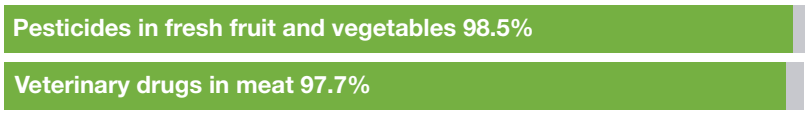


*Figure 1: MRL compliance for fruit and vegetables, and meat, 2018-19*

### Traceability

Traceability is an important tool for food safety by enabling timely recalls and investigation of incidents. The *Safe Food for Canadians Regulations* (2022) require the tracking of food at the stages of importing, exporting, production, manufacturing, distribution, storage, and selling, with the exception that retailers are not required to track to the end consumer.

(Traceability is also used to make claims on quality attributes, such as about methods of production (e.g., organic, sustainable, provenance, ethical) and other uses but these are not specifically health- or safety-related and are, therefore, not tracked by the Index.)

## Additional context

### Consumer issues

The Index does not track consumer survey results but polling by the Canadian Centre for Food Integrity reveals that consumers link certain agricultural practices with perceptions of safe food. Consumers express concerns with hormone use (42% are "very concerned") and pesticides (44%); however, relative to other issues, consumer concerns about the regulation of Canada's food system overall are lower (36% are "very concerned"). Despite actual food safety results and compliance, as noted above, consumer perceptions suggest the need for even better communications about Canada's food safety regime and track record.

Regulatory requirements are also clear about food treatments, additives, and novel foods. Health Canada oversees these foods with the help of its policy, *Guidelines for the Safety Assessment of Novel Foods*. Before these foods can be marketed, they must meet rigorous standards to demonstrate safety.

### Global context

When compared to the treatment of food safety by selected global measures undertaken by this work, there are some reporting differences; some global standards address specific issues facing certain populations, such as the prevalence of lead exposure. However, matters are largely consistent because many countries, including Canada, generally conform to the Codex Alimentarius, a global standard published by the U.N. Food and Agriculture Organization (FAO), as foundational guidance for food safety.

**Food safety** is one component of a sustainable agri-food system.

**The National Index on Agri-Food Performance is a first-of-its-kind Canadian initiative to define and report on a comprehensive and consolidated picture of sustainability from food production to retail.**

Complete Index results along with references to global practices are available at **agrifoodindex.ca**. All information in this paper is sourced from the Index (Part 2) unless otherwise stated. This paper is one of seven published together as Part 3 of the Phase 3 Final Report, May 2023.