



# SEAFOOD QUALITY

## Purpose:

The purpose of this fact sheet is to review the concept of seafood quality, and to outline the attributes of seafood products that are most influential to consumers when evaluating for quality.

## Target Audience:

Anyone, directly or indirectly, associated with the production and sale of seafood products in Nova Scotia. Consumers looking to understand how to evaluate seafood products for quality.

## What is quality and why is it important?

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According to the International Organization of Standardization (ISO), quality is defined as “The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.” In simple terms, quality is a measure of how closely a products attributes meet a set of requirements.

In food production, quality assurance (QA) programs are established to satisfy federal and/or retail requirements to prevent seafood products that contain hazards from entering the marketplace. Food enforcement agencies, such as the Canadian Food Inspection Agency, require food producers to comply with Safe Food for Canadians Regulations by establishing Preventive Control Plans.

Quality control (QC) programs are established by food manufacturers and food retailers to monitor and verify the controls set out in the QA program are performing as intended, and to ensure that products consistently meet stated product specifications.

Quality begins and ends with the consumer, yet consumers are not aware of the activities and outcomes of QA/QC programs. If consuming a food product is a positive experience to that consumer, they are likely to continue to seek out that experience. Consistent consumer satisfaction creates the market and demand for that product, and ultimately benefits the producers of those products. Understanding the seafood consumer and meeting their evolving expectations is equally important as QA/QC programs to ensure that the seafood products are appealing and desirable.

## What product attributes do consumers value?

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The following attributes are commonly assessed by seafood consumers to evaluate the quality of seafood products and influence their purchasing decisions (Olson, S, 2017):

- Nutritional Value
- Sustainability
- Food Safety
- Traceability
- Sensory – appearance, flavour, odour, texture, freshness
- Production Method
- Price / Value
- Natural
- Product Information
- Convenience

According to recent survey of Canadian consumers, the attributes of seafood products most desired by consumers includes freshness, country of origin, sustainably sourced, wild caught, best before date marked, price, and traceability info on label (CFIA, 2022).

## How can you measure seafood quality?

Quality is not a measurable attribute of seafood products, yet individual attributes that influence the perception of quality, such as the freshness, odour, nutritional value, production methods and price, can be measured.

Importantly, consumers often identify low quality seafood products by their appearance, odour, and other sensory characteristics, whereas high quality seafood products are differentiated by the perceived benefits from their consumption that are often related to the social and environmental impact from their production.

Consumers mistakenly measure quality by evaluating how fresh a product is from the number of days since harvest. This approach can be unreliable at retail and in restaurants where this information is difficult to accurately communicate because it does not factor in the impact of handling throughout production, distribution, and storage. This can be overcome by instead communicating product freshness.

***Freshness - a measure describing the progression of spoilage in a seafood product and how closely its attributes represent that of the living animal.***

Research shows consumers look to understand seafood production methods (wild versus farmed), country of origin, and sustainability and food safety certifications achieved (Brayden, 2018), and prioritize the price, presentation, and health impact when selecting different seafood products for consumption (Menozzi, et al., 2020).

## Key Take-Aways:

1. Quality can mean something different at different levels within seafood production. It is not directly measurable, and ultimately determined by the overall level of satisfaction by individual consumers and/or markets.
2. Low quality products are frequently described by an unfavourable sensory experience, whereas high quality seafood products are described using attributes related to production and the positive outcomes from their consumption as they relate to social, environmental, and nutritional impacts.
3. Maximizing the freshness of product conveyed to market, through effective temperature management and good handling practices, will limit the prevalence of low quality products available for sale in the market.

## References

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