

SENSORY ASSESSMENT: ITS ROLE AT THE MARINE LABORATORY

By

Nicky Shepherd

FRS Marine Laboratory, PO Box 101, Victoria Road,
Aberdeen, Scotland, AB11 9DB

What is Sensory Assessment?

The use of one or more of the senses to judge, or form an opinion, on some aspect of quality.

Who Uses Sensory Assessment?

Consumers in shops, restaurants and homes use sensory assessment when forming judgements about the quality of the product they are to consume.

An Objective Sensory Method

The Torry freshness scoring system was the first detailed method for measuring fish freshness using an **objective** sensory scale.

EU grading system is based on the same principles.

Principles of Measuring Spoilage

Within a species the sequence of spoilage changes is reproducible under similar conditions- stages can be recognised.

Numbering the stages gives rise to a quantitative sensory scale.

Sensory Assessment of Taint in Fish and Shellfish

A taint is defined as "an odour or flavour foreign to the product"

Where does the taint come from?

Why Measure Taint?

- Food becomes unacceptable to the consumer
- Taint suggests contamination
- Safeguard the consumer
- Protect the seafood market

Exclusion Zones

Food and Environment Protection Act 1985
Prohibits the harvesting of farmed or wild fish and shellfish

Marine Laboratory Aberdeen Involvement

- Chemical analysis of fish for the determination of chemical contamination
- Sensory assessment of fish for the presence of taint

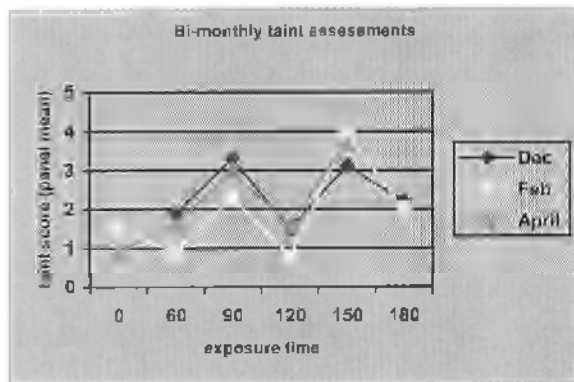
A panel of trained assessors should be regarded as any other laboratory instrument.

When maintained correctly it is capable of producing results which are accurate and statistically valid.

Intensity Scale

- 0 Absence of taint
- 5 Extremely strong

Sample deemed tainted when 50% or more of the panel responses are positive.



Summary

Taint is a sensory experience and can only be detected by sensory analysis.
At the Marine Laboratory it is used as a rapid and sensitive screening method, compatible with a Government statutory response to an oil spill or pollution incident.