

THE QUALITY INDEX METHOD FOR THE ASSESSMENT OF FISH FRESHNESS

Bekaert Karen and Marc Raemaekers

Departement Zeevisserij, Centrum voor Landbouwkundig Onderzoek
Ankerstraat 1, B-8400, Oostende, Belgium
E-mail: karen.bekaert@dvz.be

The last couple of years, the fisheries sector is under great pressure. For the development of durable and economic viable fisheries, fish quality and traceability in the supply chain is a central element. Freshness is an important factor in determining the overall quality of raw fish and sensory evaluation is the most common method for freshness assessment. However, the validity of the EU sensory grading system has been questioned as it is not taking into account differences between species and only using general characteristics. Efforts have been made to develop alternative, objective sensory methods. The most interesting freshness quality grading system at the moment is the Quality Index Method (QIM), first introduced in 1985, as a standardised, rapid and reliable method. The main characteristic of QIM is giving scores from 0 to 3 for changes of quality attributes that occur during storage on ice. The scores for all the characteristics are summarised to give an overall sensory score, the so-called Quality Index (QI). The aim is to obtain a linear relationship between QI and storage time in ice. As such, the QI might estimate the storage time. QIM has to be developed separately for each fish species. A QIM scheme for the sensory assessment of freshness of yellow gurnard (*Trigla lucerna*) was developed and validated by sensory and chemical parameters.

References

- Bremner A. H., J. Olley and A. Vail. 1986. Estimating time-temperature effects by a rapid systematic sensory method, in *Seafood Quality Determination*, 413-435.
- Luten J.B. and E. Martinsdottir. 1997. QIM: A European tool for fish freshness evaluation in the fishery chain, in *Methods to determine the freshness of fish in research and industry*, 287-296.
- Olafsdottir G., E. Martinsdottir, J. Oehlenschlager, P. Dalgaard, B. Jensen, I. Undeland, I.M. Mackie, G. Henehan, J. Nielsen and H. Nilsen. 1997. Methods to evaluate fish freshness in research and industry. *Trends in Food Science & Technology*. 8: 258-265.