Relevant quality parameters for different markets are considered. For instance, an oil intended for functional food or children’s products (A) will have stricter sensory demands than oils in drinking oil and pharmaceuticals (B & C), while the chemical demands are the same in all segments.

Example of classification.

By dividing the oils in to 3 sensory classifications it will be easier for the industry to communicate the quality of their oils to the marked. A classification system could also be useful in their quality control and quality optimization.

Results show a positive correlation between primary and secondary oxidation products and sensory properties such as rancidity and fermented flavour and a negative correlation between primary oxidation products and sourness.

Characteristics as sourness, grassy, nutty and butter is considered as minor deviation and will not reduce the quality the oil in the same extent as characteristics like chemical, process, fermented and rancid. Most of the oils has also a weak fishy flavour common for the species and regarded as less serious for the quality.

Oil-samples from eight of the largest producers of omega-3 products in Norway has been collected for sensory and chemically analysis and the objective has been to classify the different types of oil based on their sensory quality. Earlier a sensory wheel based on 60 selected descriptors grouped together in 21 categories was developed to give a systematic presentation of the sensory vocabulary.

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