

Seafood nitrogen factors

Analytical Methods Committee AMCTB No 62

The determination of nitrogen as a quantitative marker for seafood fat-free protein, allowing the calculation of seafood content of seafood products, is well established, and is the official chemical enforcement method. It is also widely used by food producers to check the specification and added water of their seafood raw materials. A "nitrogen factor" is the average nitrogen content of seafood tissues, on a fat free basis unless the fat content is low as in white fish. Most seafood is prepared by using wet processes as part of good hygienic practice (GHP). Therefore, in establishing nitrogen factors for seafood, keeping water uptake to a minimum and using good manufacturing practice (GMP) has to be taken into account.

Introduction

The nitrogen factor is defined as the ratio of the nitrogen content of the seafood to the protein content of the seafood, expressed as a percentage. The nitrogen factor is used to calculate the protein content of seafood products. The nitrogen factor is determined by dividing the nitrogen content of the seafood by the protein content of the seafood, and multiplying the result by 100. The nitrogen factor is expressed as a percentage.

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Nitrogen factors for seafood ingredients

The nitrogen factors for seafood ingredients are listed in the following table. The nitrogen factor is expressed as a percentage.

References

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Pangasius (Pangasius hypophthalmus)

(...) ... 13 ... 2012. ... 2.0 /100, (... 2.), ... % ... (2. /100, (... 2.0)).

Determining seafood content by chemical analysis

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$$\% \text{ Fish} = \frac{(\% \text{ total nitrogen} - \% \text{ non-fish nitrogen})}{\text{appropriate } N \text{ factor}} \times 100$$

$$\% \text{ non-fish nitrogen} = \% \text{ carbohydrate} \times 0.02$$

$$\% \text{ carbohydrate} = 100 - (\% \text{ water} + \% \text{ fat} + \% \text{ protein} + \% \text{ ash})$$