

Sensory description of varieties of dried stockfish



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Report

<i>Report number:</i> 34/2023	<i>ISBN:</i> 978-82-8296-768-6	<i>ISSN:</i> 1890-579X
<i>Date:</i> 23 November 2023	<i>Number of pages + Appendixes:</i> 4	<i>Project number:</i> 11183
<i>Title:</i> Sensory description of varieties of dried stockfish		
<i>Tittel:</i> Sensorisk beskrivelse av ulike varianter av tørrfisk		
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<i>Client/Customer:</i> Nofima		
<i>Client's/Customer's reference:</i>		
<i>Keywords:</i> Stockfish, word clouds		
<i>Summary/Recommendation:</i> Three different varieties of dried stockfish were analyzed: traditional, whole dry stockfish from Norway, rehydrated, vacuum packaged, newly thawed fillets of stockfish from Norway, and dry stockfish snacks, small pieces from Iceland. "Brainstorming" provides an overview of sensory words that are particularly important for describing a product or product group. Words that are most prominent in the word cloud are the words that are mentioned the most times by the assessors. The main odour sensory profile from dry stockfish is dominated of an odour from trimethylamine and some odour notes described as wetdogfur and ammonia. There were some minor differences depending on which dry stockfish variety that were evaluated. Traditional dry stockfish is described mainly with an odour of ammonia, trimethylamine, rubber, and, pungent. While rehydrated, vacuum packaged, thawed fillets of stockfish are described with trimethylamine and last dry stockfish snacks is described with trimethylamine, wetdogfur, sulphur, marine.		
<i>Sammendrag på norsk:</i> Tre ulike varianter av tørrfisk ble analysert: tradisjonell, hel tørrfisk, frossen utvannet og tint tørrfisk, og tørrfisk snacks. «Brainstorming» ble brukt som metode. Denne metoden summerer opp de viktigste sensoriske egenskaper som beskriver produktet. Egenskaper som er nevnt flest ganger vil i resultatet vises som størst, og vil være de egenskaper som best beskriver produktet. Den lukten som dominerer ulike varianter av tørrfisk blir beskrevet med egenskapen trimetylamine, og lukter som minner om våt hundepels og ammoniakk.		

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1 Introduction

The aim of this evaluation of different varieties of dry stockfish is to identify and describe the most prominent odours generated through the process of drying cod (*Gadus Morhua*) to a rehydrated product.

2 Material and methods

2.1 Samples

Three different varieties of dried stockfish were analyzed:

- Traditional dry stockfish, whole fish from Norway
- Rehydrated, vacuum packaged, newly thawed fillets of stockfish from Norway
- Dry stockfish snacks, small pieces from Iceland

2.2 Sensory method

"Brainstorming" provides an overview of sensory words that are particularly important for describing a product or product group. It is a useful tool in communication about the product.

Words that are most prominent in the word cloud are the words that are mentioned the most times by the assessors.

The assessors are selected based on their abilities to recognize smell and taste that meet the requirements in ISO 8586:2012 General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors. The sensory panel is trained, tested, and calibrated regularly.

The modality odour was evaluated on all samples.

The trained sensory panel was consisting of six assessors.

2.3 Implementation of sensory method

Samples were received 04.09.2023 and put cooled at +4 °C until the day of assessment, 05.09.2023. Three samples were assessed in one session describing odour and served at room temperature at +20 °C. A smaller piece above the head of the traditional dried stockfish was first sawed off and further hit by a hammer into smaller pieces suitable for evaluation.

The three samples were served in white plastic beakers marked with random three-digit codes, covered with a metal lid, and served in a fixed order.

Red light was used in the sensory laboratory to masque differences in colour.

3 Results

Using a «word cloud tool», all the words from the three varieties were run and “word clouds” were received.

3.1 Traditional dry stockfish, whole fish from Norway

The odour sensory profile for traditional dry stockfish is ammonia, trimethylamine, rubber, pungent and to some odours of wetdogfur, fishfeed and cloying (sickeningly sweet), Figure 1.

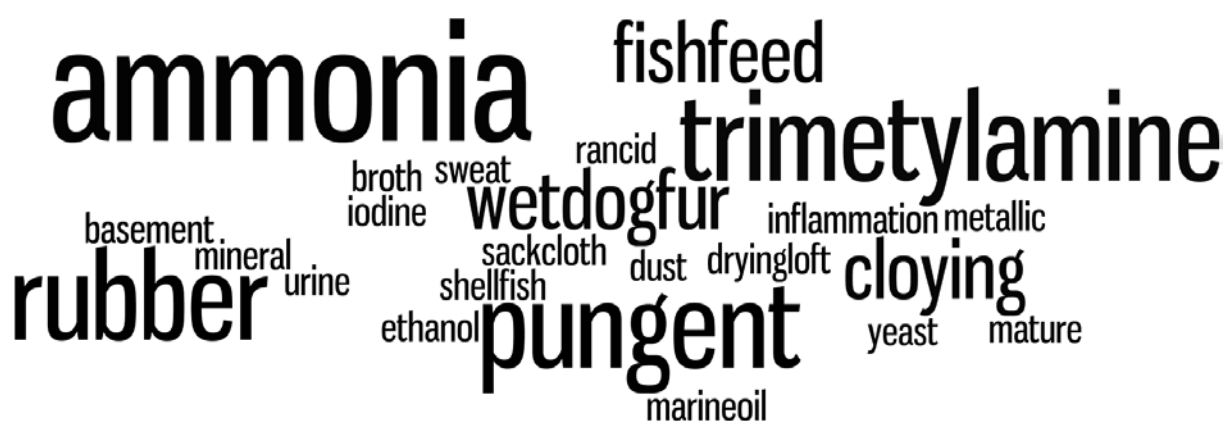


Figure 1 Showing the results from the evaluation of odour by the sensory panel.

3.2 Rehydrated, vacuum packaged, thawed fillets of stockfish from Norway

The odour sensory profile for rehydrated, vacuum packaged, thawed fillets of stockfish are trimethylamine, and to some extent odours of wetdogfur, fishfeed, cardboard, dryingloft, fishy, marine, metallic and cloying (sickeningly sweet), Figure 2.

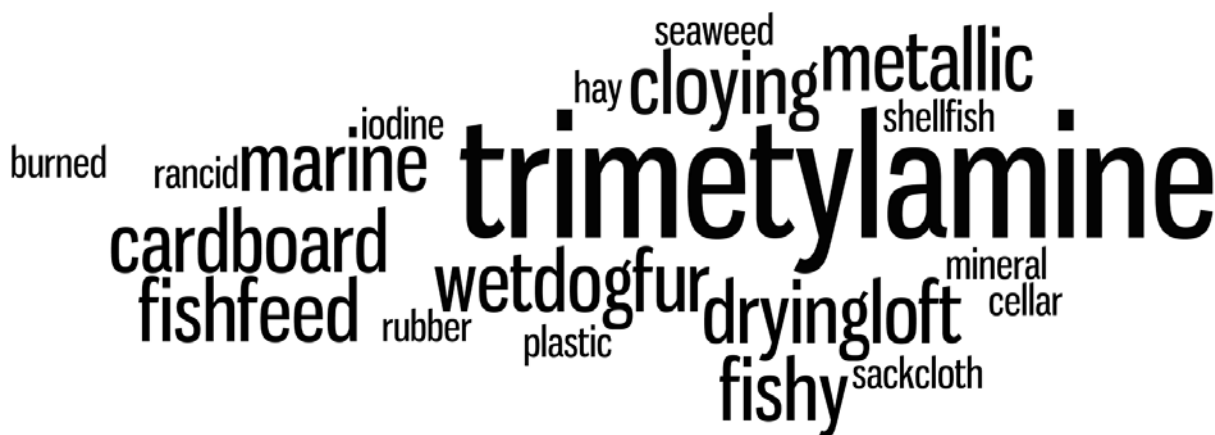


Figure 2 Showing the results from the evaluation of odour by the sensory panel.

3.3 Dry stockfish snacks, small pieces from Iceland

The odour sensory profile for dry stockfish snacks is trimethylamine, wetdogfur, sulphur, marine and to some extent odours of fermented/sour, ammonia, and iodine, Figure 3.

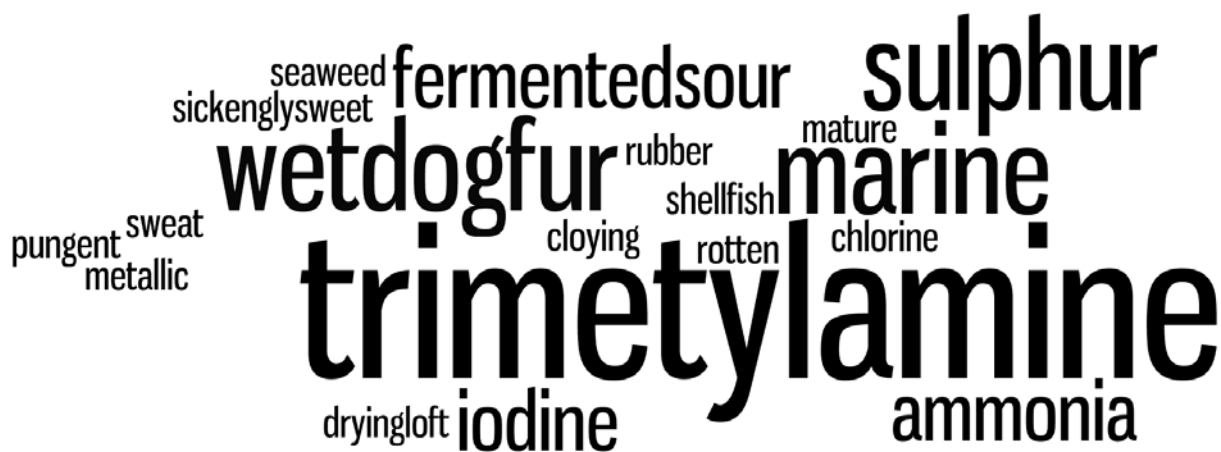


Figure 3 Showing the results from the evaluation of odour by the sensory panel.

3.4 All three together

To get a broader picture of the odour sensory profiles from dried stockfish, word from all three different varieties were put together. The odour sensory profile for all three varieties is trimethylamine, wetdogfur, ammonia and to some extent metallic, fishfeed, dryingloft, pungent, cloying, marine, rubber, and marine, Figure 4.



Figure 4 Showing the results from the evaluation of odour by the sensory panel.

4 Summary

The main odour sensory profile for dry stockfish is dominated of an odour from trimethylamine and some odour notes described as wetdogfur and ammonia.

There were some minor differences depending on which dry stockfish variety that was evaluated. Traditional dry stockfish is described mainly with an odour of ammonia, trimethylamine, rubber, and pungent. While rehydrated, vacuum packaged, thawed fillets of stockfish are described with trimethylamine. Dry stockfish snacks are described with trimethylamine, wetdogfur, sulphur, marine.