Investigation of pausing fermentation of salamis with multispectral imaging for optimal sensory evaluations - DTU Orbit (06/01/2019)

Investigation of pausing fermentation of salamis with multispectral imaging for optimal sensory evaluations

The fermentation process of salamis involves several parameters influencing taste, texture, and color of the salami. One significant parameter is the fermentation time. It is difficult to conduct sensory evaluations to assess the effect of time without introducing variation between observation days. It may be possible to overcome this by stalling or pausing the fermentation by deep-chilling the salamis. This study investigates the difference of non- and deep-chilled salamis with the use of a multispectral imaging system. The statistical investigation, based on image features relating to size, visual texture, and color of the sausages over time, showed that it may be possible to stall the fermentation process. It was shown that a statistical difference in the two kinds of samples is present. For the size feature the difference could be quantified into a number of days. However, for the important color feature only a statistical difference was observed, whereas the visual difference expressed in terms of $\Delta E_{ab}$ was barely present.

General information
State: Published
Organisations: Technical University of Denmark, Department of Applied Mathematics and Computer Science, Image Analysis & Computer Graphics, DuPont Denmark
Pages: 9-17
Publication date: 1 Dec 2018
Peer-reviewed: Yes

Publication information
Journal: Meat Science
Volume: 146
ISSN (Print): 0309-1740
Ratings:
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 3.39 SJR 1.643 SNIP 1.9
Web of Science (2017): Impact factor 2.821
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 3.33 SJR 1.792 SNIP 1.929
Web of Science (2016): Impact factor 3.126
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 3.04 SJR 1.917 SNIP 1.858
Web of Science (2015): Impact factor 2.801
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 2.94 SJR 1.482 SNIP 1.876
Web of Science (2014): Impact factor 2.615
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 2.9 SJR 1.512 SNIP 1.83
Web of Science (2013): Impact factor 2.231
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 2.84 SJR 1.617 SNIP 1.881
Web of Science (2012): Impact factor 2.754
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 2.75 SJR 1.769 SNIP 1.788
Web of Science (2011): Impact factor 2.275
ISI indexed (2011): ISI indexed yes