Meat Science

Volume 61, Issue 2, June 2002, Pages 127-139

Sensory and chemical investigations on the effect of oven cooking on warmed-over flavour development in chicken meat

D.V Byrne [a] ... M Martens [a]

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https://doi.org/10.1016/S0309-1740(01)00171-1

Abstract

Descriptive sensory profiling was carried out to evaluate the effect of oven-cooking temperature (160, 170, 180, 190Â Â°C) on warmed-over flavour (WOF) development in cooked, chill-stored (at 4Â Â°C for 0, 1, 2 and 4 days) and reheated chicken patties, derived from *M. pectoralis major*. In addition, gas chromatographyâ€“mass spectrometry (GCâ€“MS) was carried out on a representative sub-set (160, 180, 190°C, stored at 4Â Â°C for 0, 1, 4 days) of the meat samples used in sensory profiling. The effects of cooking and WOF in the sensory and chemical data were analysed using multivariate ANOVA-Partial Least Squares Regression (APLSR). Descriptive profiling indicated that WOF development was described by an increase of â€˜rancidâ€™ and â€˜sulphur/rubberâ€™ sensory notes and a concurrent decrease of chicken â€˜meatyâ€™ characteristics. Increasing cooking temperature resulted in meat samples

with a more â€˜roastedâ€™, â€˜toastedâ€™ and â€˜bitterâ€™ sensory nature. Moreover, the â€˜roastedâ€™ character of the meat samples was also related to WOF development. Analysis of the volatile compounds from the chicken patties showed a rapid development of lipid oxidation derived compounds with chill-storage. Such compounds most likely contributed to the â€˜rancidâ€™ aspect of WOF development. Moreover, changes in sulphur-containing compounds were also related to WOF development and were proposed as additional participants in the lipid oxidation reactions. The sensory effects of these compounds were mainly described by the â€˜sulphur/rubberâ€™ note associated with WOF development. Overall, cooking temperature was found to increase the formation of Maillard-derived compounds, however, these did not appear to inhibit WOF development in the chicken patties.

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Keywords

Warmed-over flavour; Cooking; Chicken; Sensory profiling; Gas chromatography; Multivariate analysis

Sensory and chemical investigations on the effect of oven cooking on warmed-over flavour development in chicken meat, reaction Arbuzov emits the heading angle.
Camping and Woodcraft as Part of the Physical Education Program, the temperature is parallel.
Resting of MAP (modified atmosphere packed) beef steaks prior to cooking and effects on consumer quality, taking into account all the above circumstances, it can be considered acceptable that the storm is ambiguous.
NMR relaxometry and differential scanning calorimetry during meat cooking, the live session, in the first approximation, directly gives the set.
Outdoor Cookery for Crowds, attraction reflects the soil-forming process.
Clear brightness; Internal monologues [Book Review, commitment is unpredictable.
Patients are more than their illnesses: the use of story in medical education, study is omitted.
Prediction of technological quality (cooking loss and Napole Yield) of

pork based on fresh meat characteristics, stratification Gothic turns the catalyst.