

BEEF BREEDS : MEAT SECTOR CHANNELLING STRATEGIES BASED ON FACTORIAL ANALYSIS

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Factorial analysis was run on zootechnical parameters, taste and texture properties and fatty acid contents measured in meat from young bulls of three beef breeds during finishing (Belgian Blue, Limousin and Aberdeen Angus) and targeting 4 actors in the beef sector: beef finisher, processor (slaughterer/butcher), consumer and dietician. This method, which identifies the main components, suggests that the three breeds could be oriented towards specific markets.

Keywords: factorial analysis, breeds, young bulls, zootechnical parameters, taste and texture parameters, chemical parameters, beef sector

BAYONNE HAM PGI : LONGER AGEING IMPROVES ITS SENSORY CHARACTERISTICS *ROBERT N., BASLY S., DUTERTRE C.*

Dried ham is part of southern Europe's gastronomic heritage. It is produced by the combined actions of extended enzymatic ageing and desiccation in the presence of salt, and the result is directly related to temperature changes and the diminishing water activity. The specifications for PGI Bayonne ham require a minimum production period of 7 months, although the majority of Bayonne hams produced already exceed the 9 month mark. Extending the ageing period from 7 to 9 months improves the sensory characteristics of the end product. These studies give the Bayonne Ham consortium objective reasons to propose a minimum production period of 9 months.

Keywords: Bayonne ham, ageing period, sensory characteristics

MEAT AGEING: A NEW FACTOR FOR UNDERSTANDING MEAT AGEING

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Meat tenderisation is primarily enzymatic in nature and involves endogenous proteolytic systems. Up to date, scientists have focused their attention on two systems, i.e. the cathepsins and the calpains. Most of them actually considered that calpain system and especially calpain 1 are the most important and can explain a large part, if not all, of the variability in meat tenderness. However this assumption has never been definitely proven. We therefore look at different new hypothesis susceptible to open a new door for a more dynamic research in meat science. One of them which would have appeared evident for our purpose since ten years deals with the fact that, after animal bleeding, muscle cells have no other alternative to only enter the programme cell death procedure or apoptosis. If we introduce an early phase corresponding to apoptosis, we will see that the known consequences of that process bring forward answers to numerous still unexplained observations. This revue intended to present in a first part a simplified overview of the programmed cell death and its underlying mechanisms. We then described the strong analogies between the known consequences of apoptosis and the postmortem changes affecting a set of different muscle characteristics.

Keywords: meat ageing, tenderness, muscle, pH, calcium, caspases, apoptosis

PORK MEAT : EXTENDED AGEING GIVES MORE TENDER MEAT

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Three-day ageing of whole pork loins of technologically-equivalent quality at processing led to increased meat reflectance (reflectance L*) and a slight yellowing in colour (b*). The Warner-Bratzler Shear test, considered the best predictor of meat tenderness, showed that meat texture in the rib-eye area became more tender with longer ageing (whole loin or tray packaging).

There was no difference in shear force between the Label Rouge and standard products.

Keywords: pork meat, ageing, tenderness

CULLED SOWS: IMPACT OF AGE ON MEAT QUALITY

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Meat from culled sows is used fresh by meat-curing operators and used cooked by processors. Zootechnical and technological studies were performed on two batches of 15 culled sows of different parity.

The older sows had a higher hot carcass weight. There was no significant difference in fat thickness, although there was a trend towards thicker fat in older sows. Older sows had higher pH₂₄ meat. Loins from older sows had a lower sugar content, related to the higher ultimate pH. Collagen content was lower in loins from older sows, but loins from younger sows were richer in lipids.

The cooking test revealed that pork from older sows tended to give a better performance. Their loins were darker-coloured, associated with a higher ultimate pH. There was no significant difference in bacon yield after processing between the two groups. Pork from older sows presented higher tenderness.

Keywords: culled sow, age, meat quality

MONGOLIA : MEAT QUALITY CHARACTERISTICS IN MONGOLIA *KHUUKHENKHUU B., BADAMKHAND L.*

This paper reports the results of analyses carried out by KHUNSTECH, one of the major Mongolian R&D centres, to characterise the chemical composition and specificities of meat produced in Mongolia. The analyses showed that meat produced in Mongolia is characterised by high contents of essential amino acids, cerotic acid, vitamin B2 and micronutrient such as iron, copper and manganese. It is also characterized by an absence of pesticide, heavy metal and chlorinated organic residues.

These characteristics are directly related to farming patterns and to a diet based on the wide variety of wild flora found across the Mongolian steppes.

Keywords: meat, composition, residues, quality, Mongolia



English

Summary