



English

Summary

**SELECTION OF MEAT CHICKENS:
ULTRASONICS FOR PREDICTION OF
MUSCLE GROWTH**

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A genetic study was conducted in order to quantify the interest of the sonography method to predict breast meat weight or yield, in an experimental meat-type chicken line. Indeed, this in vivo method could be a very valuable substitute for the muscle dissection method that remains laborious et costly. According to our results, this information brought by the cross-sectional areas of the muscle in the prediction of breast meat weight or yield was very limited. The heritability of breast meat yield predicted by sonography was thus very low (0.06). As a conclusion, this study did not enable to conclude that sonography could be used for the selection on breast yield, at least in this experimental line.

Key words: selection, broilers, breast Yield, in vivo method, sonography, genetic parameters.

**CULL COWS:
IMPACT OF AGE ON CARCASS QUALITY
BASTIEN D.**

Our purpose was to measure the impact of age at slaughter on the carcass quality of large numbers of cows in real conditions. "Threshold ages" beyond which weight and conformation are appreciably poorer and carcasses are leaner were demonstrated for the main French breeds.

Key words: cow, age, carcass quality

**MEAT QUALITY:
TOWARDS NON-DESTRUCTIVE
ASSESSMENT METHODS**

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One off the major problems of meat industry and more particularly of the beef industry is the large variability of the raw material. As a result, consumers as sold meat of very different qualities. Numerous studies have shown the influence of some animal characteristics on meat tenderness through the effect of collagen and myofibrillar structure. The quality of food and of meat in particular can be expressed in terms of quality factors linked to physical properties which can be quantified objectively by physical measurements. Several promising techniques very which can

objectively and non destructively quantify some quality factors are being studied at the Meat Research Station. These methods involve, optical techniques with image analysis using UV or visible light, dynamic methods using ultrasound, electromagnetic methods like NMR, IRN, hyperfrequency and electrical impedance. Some of these methods, such as NMR, use techniques only available in scientific laboratories whereas techniques, like microwaves measurements and electrical impedance, have the potential to be used on-line for nondestructive control of meat. These techniques can also be used in other industries like the fish industry.

Keys words: Meat, quality, analysis, measure, non destructive, tenderness, electrical impedance, conductivity, NMR, ultrasound, muscle, fibre, myofibrillar structure, connective tissue, fat.

**INDUSTRIALISATION OF THE BEEF
SECTOR:**

**NECESSARY INNOVATION STRATEGY
BARRE D.**

As a manufacturing industry, the bovine meat industry has been pushed into innovation along with the setting up of traceability. For a further step towards industrialisation, it has to be able to innovate as well as for products (range, presentation, shelf life) as for process (technical and economical efficiency) and within its organisation.

Key words: beef, management, innovation, industrialisation, standard, traceability, company strategy

**HEAVY CATTLE BEEF:
QUALITY DEMARCATION, TOWARDS WHAT
STRATEGIES?**

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Through developing the offer of quality-associated products the beef sector has strongly progressed in terms of market segmentation: a proportion of consumers has been made aware of the security that quality indicators can provide as regards food safety. The current issue is how to combine this guarantee with olfactory qualities that are still appreciated.

Key words: beef, quality signs, sector, France