



English

Summary

#### LIPID CONTENT OF VEAL MEAT LIPID METABOLISM AND FATTY ACID QUALITY IN VEAL FROM PRERUMINANT CALVES

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This review reported present knowledge on the effects of milk constituents on the specificities of intestinal digestion of milk fat and on the lipid transport system (lipoproteins) and the fatty acid metabolism in the liver and in muscle and adipose tissues in the preruminant calf. Consequences of these metabolic activities (oxydation, synthesis, on the tissus and organs functionings (especially the liver in relation to the health and growing efficiency) will be successively described. Finally, fatty acid distribution and amount in meats are analyzed in relation to their impact on the health of consumers and the variations of these characteristics are detailed in function of dietary lipid sources (tallow; soy bean, coconut and corn oils) incorporated in the milk diets.

*Keywords: preruminant calves, lipids, fatty acids, suckling feed, intestinal digestion, lipoproteins, tissue metabolism, liver, muscles, fatty tissue, fatty acid oxidation, lipogenesis, liver lipid deposits, meat fatty acids.*

#### CULLING DAIRY COWS IN FRANCE QUANTIFICATION OF SLAUGHTER PATTERNS OF DAIRY COWS 'IN MILK' AND AN ASSESSMENT OF THE IMPACT ON SLAUGHTERHOUSES

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A status report on culling patterns of dairy cows 'in milk' was drafted in 2004 based on six French slaughterhouses. Fifty-five percent of dairy cows culled were slaughtered when 'in milk'. Their carcasses were less heavy, leaner and showed poorer conformation than the carcasses of dry cows. There were nevertheless two categories. One third of the dairy cows were slaughtered while fully 'in milk', giving poorer conformation and lower carcass weight, while the other two-thirds culled at a much later stage showed similar carcass performance to dry cows.

*Keywords: dairy cows, slaughter, lactation, quality, carcass*

#### SORTING PORK MEAT CAN THE ULTIMATE PH OF LOIN AND RIB MUSCLES BE PREDICTED FROM MEASUREMENTS ON THE HAM MUSCLE? *CHEVILLON P., VAUTIER A.*

The ultimate pH (pHu) of loin and rib muscle cannot be predicted with sufficient confidence based on a measurement made on the ham. The best scenario comes from predicting average pHu for batch cuts based on the average pHu of hams from the same batch, which means using prediction equations. Loin pHu associated with evaluation criteria such as drip loss or even a meat marbling score are far better candidates for segmentation of the fresh meat market, and should thus be promoted to optimize the economic value of cuts according to technological

quality characteristics. Rib muscle demonstrated significant within-batch variability in pHu, and thus also in colour and aspect. Sorting criteria should be set up that take account of actual pHu distribution within the rib muscle and the expectations of consumers, distributors and butchers as well as meat curers.

*Keywords: meat sorting, ham, loin, rib, ultimate pH*

#### GAS ANAESTHESIA FOR PIGS EXPERT FEEDBACK FROM A SLAUGHTERHOUSE FITTED WITH THE BACK LOADER CO<sub>2</sub>-BASED GROUP- ANAESTHESIA SYSTEM

*TERLOUW C., ASTRUC T., DEISS V., FERREIRA C., CHEVILLON P., VAUTIER A.*

The physical and chemical characteristics of pork produced by an abattoir using the BACK-LOADER CARBON-DIOXIDE stunning system were studied. Initial pH decline was relatively slow, indicating relatively low stress levels before slaughter. Despite this, average glycolytic potential of the *semimembranosus* muscle was also relatively low. Ultimate pH was normal with respect to literature data and glycolytic potential and was not related to blood pH. Glycogen levels were not correlated with urinary adrenaline levels, indicating that other factors are also implicated.

*Keywords: gas stunning, CO<sub>2</sub>, pork meat quality, slaughterhouse*

#### LISTERIA MONOCYTOGENES PREVALENCE OF LISTERIA MONOCYTOGENES IN 13 MEAT CURING FACILITIES AND THE RESULTING PRODUCTS

*THEVENOT D., DELIGNETTE-MULLER M.L., CHRISTIEANS S., VERNOZY-ROZAND C.*

This study focused on a series of objectives: (i) to identify the prevalence of *L. monocytogenes* in the local environment of meat curing facilities before and after production, (ii) to analyse the contamination levels of meats and dry sausages at different stages of curing, and (iii) to evaluate the distribution of *L. monocytogenes* in companies and in the products produced.

The study covered a total of 13 meat curing facilities, and all operations were repeated in duplicate in order to assess the persistence of this pathogenic bacterium. The results clearly highlighted that the effectiveness of cleaning-disinfection operations could be linked to the complexity of the food production chain and the equipment used. The *L. monocytogenes* contamination rate in intermediate products decreases significantly throughout the different production stages, suggesting that the production conditions become increasingly pathogen-dysgenic as the dry sausage process advances. However, 10% of dry sausages at the end of the air-drying phase were nevertheless contaminated with *L. monocytogenes*.

*Keywords: Listeria monocytogenes, contamination, equipment, curing, serotype.*