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Department of Animal Sciences, Colorado State University, Fort Collins, USA

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\* Texas A&M University, Dept. of Animal Science, Texas, USA \*\* USDA/ARS Children's  
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\* Natural Resources Institute, Chatham Maritime, Kent, U.K. \*\* Food Technology Complex,  
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Meat Ind. Centre, Irene Animal Production Inst., Irene, Republic of South Africa \* Fed. Ctr for  
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for Animal Science and Health, Res. Branche Zeist, Netherlands and \*\*\* Research Branche  
Beekbergen, Netherlands

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\* Danish Meat Research Institute, Roskilde, Denmark \*\* Laboratoire Flaveur, SRV-INRA de  
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\* Dep. Animal Sci. and \*\* Dep. Grain Sci., Kansas State Univ., Manhattan, USA \*\*\* Archer Daniels Midland Co., Decatur, USA

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Dept. Animal Science, Kansas State Univ., Manhattan, KS, USA

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\* Inst.of Pres. & Livest.Prod.Technol.,Univ.of Hortic.& Fd Ind., Budapest, Hungary \*\* Hungarian Meat Research Institute, Budapest, Hungary

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The All-Russian Scientific Research Institute of Meat Industry, Moscow, Russia

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\* Dep. of Dairy and Food Science, \*\* Chemistry Dep. and \*\*\* Center for Food Research,  
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 \* Food Microbiology, Queen's Univ. of Belfast, N. Ireland, U.K. \*\* Department of Agriculture  
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\* Research Institute of Animal Production Nitra, Slovak Republic \*\* Agriculture University,  
Slovak Republic \*\*\* Iowa State University, Ames, Iowa, USA

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\* TUE, Faculty of Industrial Engineering, Eindhoven, Netherlands \*\* TNO Nutr. and Food  
Res., Dep. Neth. Center for Meat Technol., Netherlands

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 ..... W-8B.03
- VAN SONSBEK J.T.M.\*, VAN BEEK P.\*\*, BIJKER P.G.H.\*, and URLINGS H.A.P.\***  
 RECYCLING OF SLAUGHTER BY-PRODUCTS- AN INTEGRAL APPROACH OF  
 LOGISTICAL, ECONOMICAL, ENVIRONMENTAL AND SAFETY ASPECTS  
 \* Dep. Sci. of Food of Animal Origin, Utrecht University, Netherlands \*\* Department of  
 Mathematics, Agricultural Univ. Wageningen, Netherlands  
 ..... W-6B.23
- VAN LAACK R.L.J.M., SOLOMON M.B. and PURSEL V.G.**  
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- VAN LAACK R.L.J.M.\* and SMULDERS F.J.M.**  
 POST MORTEM GLYCOLYSIS IN VEAL CARCASSES; INFLUENCE ON MEAT QUALITY  
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- VAN DER WAL P.G., VEERKAMP C.H., VAN BEEK G. and ENGEL B.**  
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 Dlo-Inst.for Animal Sci.& Health (ID-DLO),Res.Branches Zeist & Beekbergen, NL  
 Dlo-Agricultural Mathematics Group (GLW-DLO), Wageningen, The Netherlands  
 ..... S-III.02
- VAN DER WAL P.G., VEERKAMP C.H., VAN BEEK G. and ENGEL B.**  
 THE TEMPERATURE OF HAMS, MEASURED SUBCUTANEOUS AND IN THE  
 BICEPS FEMORIS DURING SLAUGHTER AND CHILLING. II. CHANGES IN  
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- VENKITANARAYANAN K., FAUSTMAN C. and BERRY B.**  
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- VERMUNT A.E.M., BOVEE T.F.H., STEGEMAN H., HOLTHUYZEN Y.A.**  
 DEVELOPMENT OF A NEW DETECTION METHOD FOR  
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 \* Departamento de Tecnología Agroalimentaria, Spain \*\* Escola Superior Agrária de  
 Santarém, Sector da Tecnologia da Carne, Portugal  
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- WAADE C. and ZEUTHEN P.**  
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- WATANABE A.\* and DEVINE C.E.**  
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 (Inc), Box 617, Hamilton, New Zealand, \* Present address; Tohoku National Agricultural  
 Experiment Station, Morioka, Iwate, Japan  
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- WEIJTENS M.J.B.M., URLINGS H.A.P. and BIJKER P.G.H.**  
 THE TOP-DOWN APPROACH IN THE ELIMINATION OF  
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 .....S-IVB.24
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TNO Nutrition and Food Research, Zeist, The Netherlands

..... S-IVB.22

**WYTHES J.R. and PALMER D.E.**

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INDUSTRY REGULATORY CONCEPTS

Queensland Livestock and Meat Authority, Spring Hill, Brisbane, Australia

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**XICCATO G., PARIGI-BINI R., DALLE ZOTTE A. and CARAZZOLO A.**

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**YETIM H. and OCKERMAN H.W.**

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